# A STUDY ON RISK MANAGEMENT TOOLS & TECHNIQUES IN LIFE INSURANCE INDUSTRY IN INDIA

A THESIS

Submitted for the Award of Ph.D degree of University of Kota, Kota in the faculty of Commerce

By

**Sonal Trivedi**

Under supervision of

**Dr. D C Jain**

Vice Principal

Govt. JDB Girls College, Kota

**UNIVERSITY OF KOTA, KOTA**

**2016**

## CERTIFICATE

This is to certify that the

i. Thesis titled "**A STUDY ON RISK MANAGEMENT TOOLS & TECHNIQUES IN LIFE INSURANCE INDUSTRY IN INDIA"** submitted by **Sonal Trivedi** is an original piece of research work carried out by the candidate under my supervision.
ii. Literary presentation is satisfactory and the thesis is in a form suitable for publication.
iii. Work evinces the capacity of the candidate for critical examination and independent judgement.
iv. Candidate has put in at least 200 days of attendance every year.

Date:

Dr. D C Jain

Vice Principal

Govt. JDB Girls College, Kota

# AKNOWLEDGEMENT

I take this opportunity to express my profound gratitude and deep regards to my guide Dr D C Jain for this exemplary guidance, monitoring and constant encouragement throughout the course of this thesis and research work. The blessing, help and guidance given by him time to time shall carry me a long way in the journey of life on which I am about to embark.

I also thank this opportunity to express a deep sense of gratitude to the person who attended my interview and also I express gratitude to the life insurance investors and managers of life insurance organizations of Chittorgarh for providing me their valuable suggestion. I was really unable to complete this work without cordial support of them certainly. It helped me in completing this task without stagnant at various stage.

I am obliged to the writers of relevant subject whose thesis available at internet with valuable information of respective fields. I am grateful for cooperation of financial advisors who delivered their system in news during the period of my assignment.

I thank also almighty, my family members, friends, professionals, fellow and renowned international management journals ‘Chaitanya Business Journal’ and ‘Paridnya (the MIBM Research Journal)’ which spaced my article on ‘Women Entrepreneurship Development in India’ dated September 2015 and ‘Doing good is good for Business’ dated September 2014 respectively. I extremely obliged of lecturers of Commerce and Management faculties for their constant encouragement as without which this thesis would not be possible as remarkable and valuable.

**Sonal Trivedi**

TABLE OF CONTENTS

## LIST OF TABLE



## LIST OF FIGURES

# CHAPTER 1

# INTRODUCTION


**1.1 INTRODUCTION**


**1.2 CURRENT PROFILE OF INSURANCE COMPANIES IN INDIA**


**1.3 REGULATORY FRAMEWORK**


**1.4 RISK PROFILE OF INSURANCE COMPANIES**

**1.5 PREFERRED RISK IN LIFE INSURANCE**


**1.6 RISK MANAGEMENT**

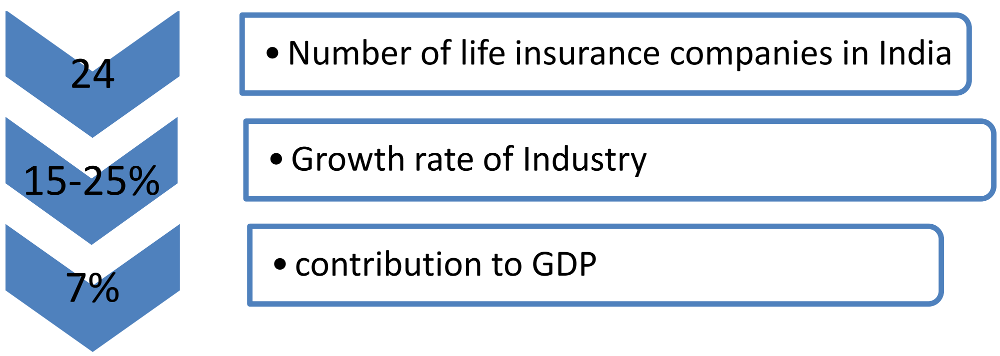
## 1.1 OVERVIEW

This chapter presents an overview of the research, the Background to the study, problem statement and purpose of the study, Objective of the study and research questions, Significance of the study, Limitations, Delimitations, and structure of thesis.

## 1.2 BACKGROUND TO THE STUDY

**Indian Insurance Market**

At present, there are 24 life insurance companies operating in India flourishing with a growth rate of 15-25 %. Thus, Insurance sector in India is a massive one and together with banking services, insurance services add about 7% to the country's GDP.




A rapidly growing and well evolved insurance sector can be very beneficial for economic growth of any country as it fulfills the long term fund requirement which can be positively used for infrastructural development of country at least risk. However, as the economic scenarios become increasingly complex and volatile, it is almost certain that there will be more deleveraged financial system and substantially different regulatory environments. In the midst of all this, what should insurers focus on in this changing environment? What changes to Asset/Liability Management (ALM) and Enterprise Risk Management (ERM) can help companies ride out of current crisis and come out even stronger. This study focuses upon the changing dynamic of the insurance industry and suggestive risk management framework and practices.

World's biggest sector- 360 million policies

Penetration levels to five per cent by 2020

current size of US$ 60 billion and expected to cross US$ 160 billion in next 10 years.

India's life insurance sector is the biggest in the world with about 360 million policies which are expected to increase at a compound annual growth rate (CAGR) of 12-15 per cent over the next five years. The insurance industry plans to hike penetration levels to five per cent by 2020.
The country's insurance market is expected to quadruple in size over the next 10 years from its current size of US$ 60 billion. During this period, the life insurance market is slated to cross US$ 160 billion.

The Indian insurance market is a huge business opportunity waiting to be harnessed. India currently accounts for less than 1.5 percent of the world's total insurance premiums and about 2 percent of the world's life insurance premiums despite being the second most populous nation. The country is the fifteenth largest insurance market in the world in terms of premium volume, and has the potential to grow exponentially in the coming years.

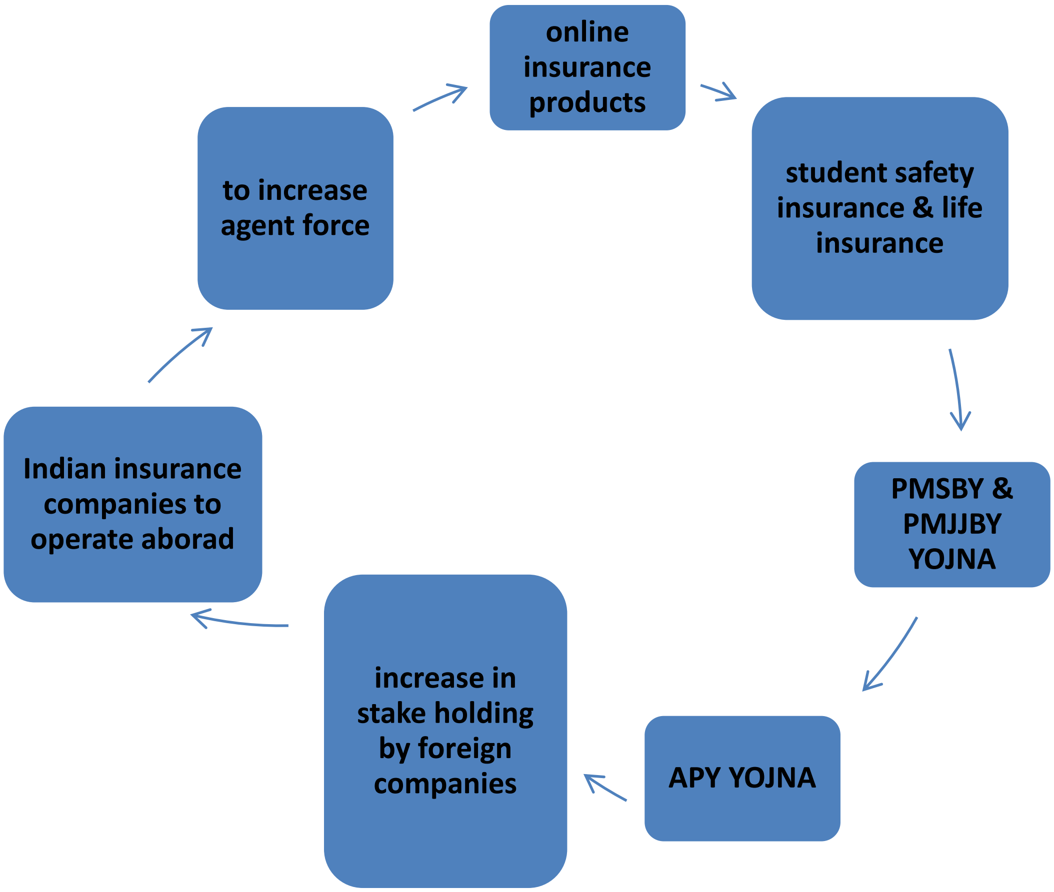
The sector of life insurance has witnessed immense growth in the past few years. Today, it is second only to banks for mobilized savings and forms a formidable part of the capital market.

The life insurance sector controls:
* More than Rs. 35, 782 crores of deployed capital
* Over Rs. 24,01,386 crores of managed assets
* Investments in infrastructure exceeding Rs. 2,95,940 crores

Another indication of the sector's growth is its infrastructural strength.
Today the life insurance sector comprises of:
* Over 11,091 branches
* More than 20.07 lakh agents
* 2.45 lakh direct employees and growing significantly
* 32.52 crores In-force policies

The above figures are provisional as of 30th June 2015 (Source: Life Insurance Council).
**Investments**

The following are some of the major investments and developments in the Indian Life insurance sector.




- The Insurance Regulatory and Development Authority of India (IRDAI) is planning to simplify the approval process for online insurance products.
- The Central Government is planning to launch an all-in-one insurance scheme for farmers called the Unified Package Insurance Scheme (Bhartiya Krishi Bima Yojana). The proposed scheme will have various features like crop insurance, health cover, personal accident insurance, live stock insurance, insurance cover for agriculture implements like tractors and pump sets, student safety insurance and life insurance.
- Government launched a special enrolment drive, Suraksha Bandhan Drive comprising of sale of gift cheques and launch of deposit schemes in bank branches, to facilitate enrolment under Pradhan Mantri Suraksha Bima Yojana (PMSBY) and Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY).
- To increase the subscriber base and ensure wider reach, the Central Government has eased several norms for its flagship insurance scheme Atal Pension Yojana (APY),in terms of more options for periodical contributions, voluntary and premature exits and simplified penalty for payment delays.

- Bennett Coleman and Co. Ltd (BCCL), the media conglomerate with multiple publications in several languages across India, is set to buy Religare Enterprises Ltd's entire 44 per cent stake in life insurance joint venture Aegon Religare Life Insurance Co. Ltd. The foreign partner Aegon is set to increase its stake in the joint venture from 26 per cent to 49 per cent, following government's reform measure allowing the increase in stake holding by foreign companies in the insurance sector.
- GIC Re and 11 other non-life insurers have jointly formed the India Nuclear Insurance Pool with a capacity of Rs 1,500 crore (US$ 226 million) and will provide the risk transfer mechanism to the operators and suppliers under the CLND Act.
- State Bank of India has announced that BNP Paribas Cardif is keen to increase its stake in SBI Life Insurance from 26 per cent to 36 per cent. Once the foreign joint venture partner increases its stake to 36 per cent, SBI's stake in SBI Life will get diluted to 64 per cent.
- Bangladesh has granted permission to the Life Insurance Corporation of India (LIC) to run its business, making it the second foreign insurance company to operate in the country.
- Reliance Life Insurance Company (RLIC) today said it will add 20,000 agents across India in this financial year as part of its expansion plans. It will increase their agency force by 20 per cent which now stands at 100,000.

**Government Initiatives**

The Government of India has taken a number of initiatives to boost the insurance industry. Some of them are as follows:

providing insurance cover to the rural and economically weaker sections of the population.

launched two insurance schemes as announced in Union Budget 2015-16.

insurance services helpline for farmers

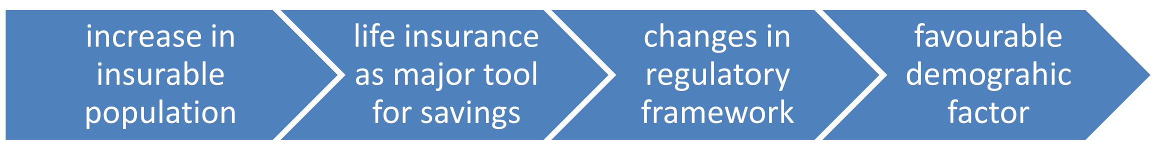
launched an insurance pool to the tune of Rs 1,500 crore

- IRDAI has formulated a draft regulation, IRDAI (Obligations of Insures to Rural and Social Sectors) Regulations, 2015, in pursuance of the amendments brought about under section 32 B of the Insurance Laws (Amendment) Act, 2015. These regulations impose obligations on insurers towards providing insurance cover to the rural and economically weaker sections of the population.
- The Government of India has launched two insurance schemes as announced in Union Budget 2015-16. The first is Pradhan Mantri Suraksha Bima Yojana (PMSBY), which is

a Personal Accident Insurance Scheme. The second is Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY), which is the government's Life Insurance Scheme. Both the schemes offer basic insurance at minimal rates and can be easily availed of through various government agencies and private sector outlets.

- The Uttar Pradesh government has launched a first of its kind banking and insurance services helpline for farmers where individuals can lodge their complaints on a toll free number.
- The select committee of the Rajya Sabha gave its approval to increase stake of foreign investors to 49 per cent equity investment in insurance companies.
- Government of India has launched an insurance pool to the tune of Rs 1,500 crore (US$ 226 million) which is mandatory under the Civil Liability for Nuclear Damage Act (CLND) in a bid to offset financial burden of foreign nuclear suppliers.

**Road Ahead**




India's insurable population is anticipated to touch 750 million in 2020, with life expectancy reaching 74 years. Furthermore, life insurance is projected to comprise 35 per cent of total savings by the end of this decade, as against 26 per cent in 2009-10.

The future looks promising for the life insurance industry with several changes in regulatory framework which will lead to further change in the way the industry conducts its business and engages with its customers.

Demographic factors such as growing middle class, young insurable population and growing awareness of the need for protection and retirement planning will support the growth of Indian life insurance

## 1.2.1 CURRENT PROFILE OF INSURANCE COMPANIES IN INDIA

**Life Insurance** is the fastest growing sector in India. Since 2000 as Government allowed Private players and FDI up to 26% and recently Cabinet approved a proposal to increase it to 49%. Life Insurance in India was nationalised by incorporating Life Insurance Corporation (LIC) in 1956. All private life insurance companies at that time were taken over by LIC. All life insurance companies in India have to comply with the strict regulations laid out by Insurance Regulatory and Development Authority of India (IRDA).

Life Insurance Corporation of India (LIC), the state owned behemoth, remains by far the largest player in the market. The private companies have come out with products called ULIPs (Unit Linked Investment Plans) which offer both life cover as well as scope for savings or investment options as the customer desires.

Here is a list of life insurance companies registered by IRDA.

1. Aegon Religare Life Insurance Co. Ltd.
2. Aviva Life Insurance Co. India Ltd.
3. Bajaj Allianz Life Insurance Co. Ltd.
4. Bharti AXA Life Insurance Co. Ltd.
5. Birla Sun Life Insurance Co. Ltd.
6. Canara HSBC Oriental Bank of Commerce Life Insurance Co. Ltd.
7. DHFL Pramerica Life Insurance Co. Ltd.
8. Edelweiss Tokio Life Insurance Co. Ltd.
9. Exide Life Insurance Co. Ltd.
10. Future Generali India Life Insurance Co. Ltd.
11. HDFC Standard Life Insurance Co. Ltd.
12. ICICI Prudential Life Insurance Co. Ltd.
13. IDBI Federal Life Insurance Co. Ltd.
14. India First Life Insurance Co. Ltd.
15. Kotak Mahindra Old Mutual Life Insurance Ltd.
16. Life Insurance Corporation of India (Public Sector)
17. Max Life Insurance Co. Ltd.
18. PNB Met Life India Insurance Co. Ltd.
19. Reliance Life Insurance Co. Ltd.
20. Sahara India Life Insurance Co. Ltd.
21. SBI Life Insurance Co. Ltd.
22. Shriram Life Insurance Co. Ltd.
23. Star Union Dai- Ichi Life Insurance Co. Ltd.
24. Tata AIA Life Insurance Co. Ltd.

| Life insurance business performance | 2013-14 | | 2012-13 | |
|---|---|---|---|---|
| | Public Sector | Private sector | Public Sector | Private sector |
| Premium Underwritten (Rs in Crores) | 236942.30 | 77340.90 | 208803.58 | 78398.91 |
| New Policies Issued (in Lakhs) | 345.12 | 63.60 | 367.82 | 74.05 |
| Number of Offices | 4839 | 6193 | 3526 | 6759 |
| Benefits Paid (Rs in Crores) | 158081 | 58994 | 134922 | 56923 |
| Individual Death Claims (Number of Policies) | 760334 | 125027 | 750576 | 127906 |
| Individual Death Claims Amount Paid | 8475.26 | 2385.33 | 7222.90 | 2147.32 |

| | | | | |
|---|---|---|---|---|
| (Rs in Crores) | | | | |
| Group Death Claims (Number of lives) | 267296 | 158682 | 245467 | 119970 |
| Group Death Claims Amount Paid (Rs in Crores) | 1882.83 | 1222.25 | 1697.37 | 949.08 |
| Individual Death Claims (Figures in per cent of policies) | 98.14 | 88.31 | 97.73 | 88.65 |
| Group Death Claims (Figures in per cent of lives covered) | 99.65 | 90.45 | 99.54 | 87.79 |
| No. of Grievances reported during the year | 85284 | 289336 | 73034 | 267978 |
| Grievances resolved during the year | 85828 | 288836 | 72655 | 268415 |
| Grievance Resolved (in percent) | 100.64 | 99.83 | 99.48 | 100.16 |

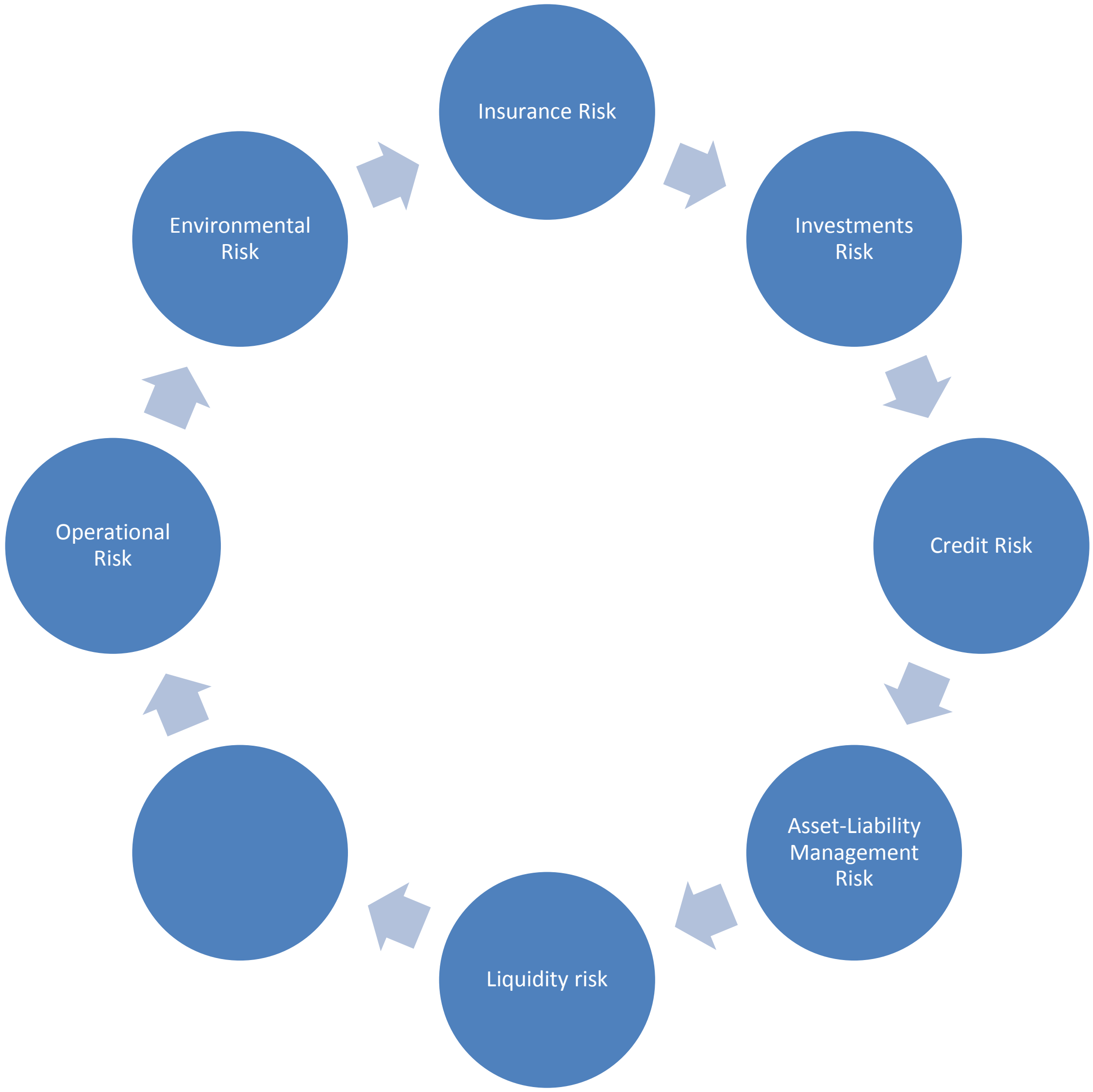
Table 1: Life insurance business performance

## 1.2.2 REGULATORY FRAMEWORK

**Insurance Regulatory and Development Authority** (IRDA) is an autonomous apex statutory body which regulates and develops the insurance industry in India. It was constituted by a Parliament of India act called *Insurance Regulatory and Development Authority Act, 1999* and duly passed by the Government of India.

The agency operates from its headquarters at Hyderabad, Andhra Pradesh where it shifted from Delhi in 2001

## 1.2.3 RISK PROFILE OF INSURANCE COMPANIES




Under risk profile of insurance companies, the following risks would be covered:

(1) Insurance Risk

(2) Investments Risk

(3) Credit Risk

(4) Asset-Liability Management Risk

(5) Liquidity risk

(6) Operational Risk

(7) Environmental Risk

**Insurance Risk**:

The risk that is inadequate or inappropriate product design, pricing, underwriting, claims management and reinsurance management will expose a life company to financial loss and the consequent inability to meet its liabilities. The major components of Insurance risks are:

• **Product design risk:**

o The Type of risks that are underwritten (death,disability etc.)
o The nature of any "guarantees" or "options" provided.
 Guarantees: Minimum guaranteed interest rate, Annual/terminal surplus participation etc.
 Options: Paid-up option, Resumption option, Dynamic Premium Adjustment, Surrender options, guaranteed annuity options etc.

• **Underwriting risk:** Weaknesses in the underwriting process and in the types and levels of controls and systems can expose a life company to the risk of incurring claims beyond the level assumed in pricing. This may threaten the long-term viability of the life company.

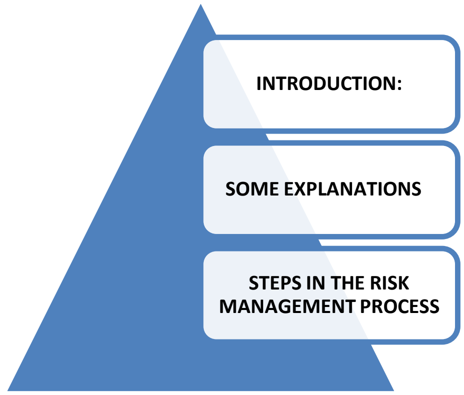
In this study will be focus only on Insurance risk.

## 1.2.4 PREFERRED RISK IN LIFE INSURANCE

Life insurers have understood for a long time that certain differences among the population lead some groups to exhibit more favorable mortality than others. All other things being equal, females outlive males; tobacco use is detrimental to health and adversely affects mortality. But formal preferred programs – life insurers selecting among standard risk applicants and offering premium discounts to the best risks.

Prior to the introduction of preferred programs, companies offered a single premium rate for each age and sex cohort (some with discounts for nonsmokers). A 45 year- old male who qualified for coverage paid a premium rate identical to any other 45-year-old male. As a result, the industry experienced pooling of risks – those with more favorable mortality offsetting costs of those with impaired mortality. With the introduction of preferred programs insured pay rates more in line with their risk profile, reducing premium cross-subsidization.

## 1.2.5 RISK MANAGEMENT




**(A) INTRODUCTION:**

Risk management is structured approach to managing uncertainly related to a threat, through a sequence of human activities including: risk assessment, strategies development to manage it, and mitigation of risk using managerial resources.

The approach of risk management include


- Transfer risk to another party
- Avoid the risk
- lessen the harmful effect of risk
- bearing some part or all loss/cost/consequence of the risk

Some conventional risk managements are focused on risks curtailing from material or legal causes (e.g. natural disasters or fires, accidents, death and lawsuits) while Financial risk management focuses on risks that can be managed using traded financial instruments.

The objective of risk management is to reduce different risks related to a preselected domain to the level accepted by society. It may refer to numerous types of threats caused by environment, technology, humans, organization and politics. On the other hand it involves all means available for humans, or in particular, for a risk management entity (person, staff, and organization).

**(B) SOME EXPLANATIONS**

If we talk about perfect model of risk management, it says first prioritize the risk and then handle the risk with greatest loss plus greatest probability first and risk with lower loss and probability of occurrence later in descending order. As per now the process seems very simple but in practice the process can be very difficult. The main point of confusion will come while prioritizing the risk with its probability in a case like balancing between risks with a high probability of occurrence but lower loss versus a risk with high loss but lower probability of occurrence.

Sometimes an organization ignores a risk which has a 100% probability of occurring. The organization does so due to lack of ability to identify that risk. The happening of any such mistake is a risk for organization itself.

There are certain types of intangible risks always attached like lack of knowledge gives rise to a knowledge risk. An ineffective association gives rise to relationship risk. Process-engagement risk may be an issue when ineffective operational procedures are applied. These risks directly reduce the efficiency of knowledge human resources, decrease cost effectiveness, productivity, service, excellence, status, brand value, and income worth.

Intangible risk management permits risk management to generate instant worth from the recognition and reduction of risks that reduce efficiency.

Risk management also counters problem in assigning assets. The mistake in allocation of resources gives rise to opportunity cost i.e. resources spent on risk management could have been spent on more profitable activities. Thus if the cost of managing risk exceeds the cost from loss, utilizing the risk management tool itself becomes a risk for organization. Thus a perfect model of risk management should characterize with minimum expenses and maximum risk mitigation.

## (C) STEPS IN THE RISK MANAGEMENT PROCESS

- I. Establish the context
- II. Identification
- III. Assessment

### I. Establish the context

A
- Identification of risk in selected domain of interest

B
- Planning the remainder of the process

C
- Mapping out the following

D
- The social scope of risk management
- The identity and objectives of stakeholders
- The basis upon which risks will be evaluated, constraints.

E
- Defining a framework for the activity and an agenda for identification

F
- Developing an analysis of risks involved in the process

G
- Mitigation for risks using available technological, human and organizational resources

**II. Identification**

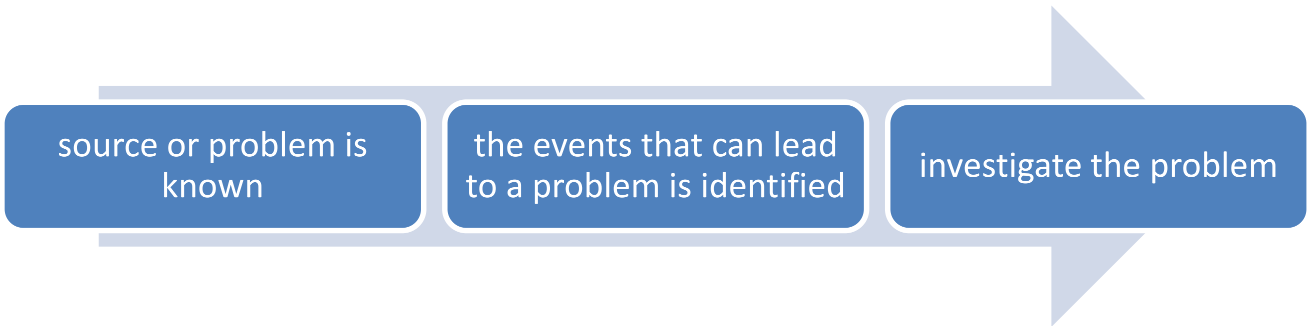
The next step after establishing context is to identify the potential risks. Risks are nothing else but the events which on triggering cause problems. Thus, risk identification starts with the source of problem or with the problem itself. Hence, identification of potential risk involves source analysis and problem analysis:

Source analysis:

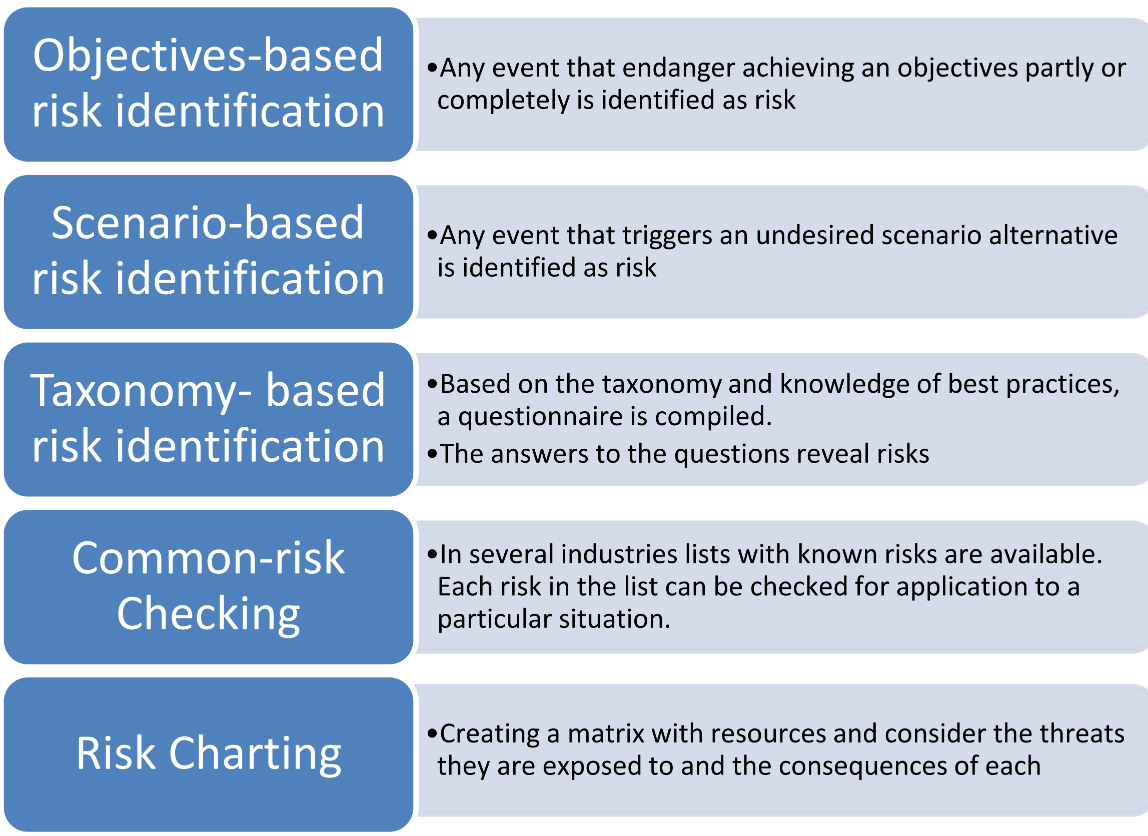
- Risks sources may be internal or external to the system that is the target of risk management. Examples of risk sources are: stakeholders of a project, employees of a company or the weather over an airport.

Problem analysis

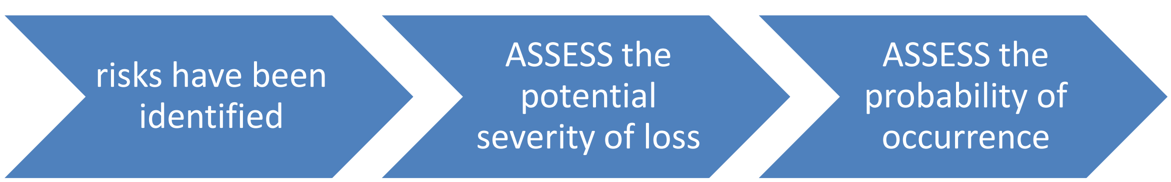
- Risks are related to identify threats. For example: the threat of losing money, the threat of abuse of privacy information or the threat of accidents and casualties. The threats may exist with various entities, most important with shareholders, customers and legislative bodies such as the government




COMMON RISK IDENTIFICATION METHOD




**III. Assessment**



This step is most important and highly critical for successful implementation of risk management plan. Assessing the potential severity of loss and its probability of occurrence can be either simple or impossible to know. For example, it is easy to measure the value of a lost building but impossible to assess the probability of occurrence of an unlikely event. Thus, the major problem in assessing risk is determining the probability of occurrence of an event as there is lack of availability of any such past data. Additionally it is quite difficult to assess the severity of loss for immaterial assets. The available solution to this problem is primary source of information.

Hence, it is required for a risk manager to prioritize the risk and first assess the primary risks which are easy to understand and make decisions. There are many theories to quantify the risk, but the most widely accepted is:

RISK = RATE OF OCCURRENCE x IMPACT OF EVENT

The point of concern is not the formula which is used to assess the risk but the frequency of performance of risk assessment.

## 1.3 PROBLEM OF STATEMENT

The problem of this study is that there is very limited empirical documentation in the area of risk management tools and techniques used in life insurance industry in India. But many scholars have worked in interrelated areas like Harrington and Niehans (2004) in their book on “Risk Management and Insurance” provide a brief overview of major life insurance and annuity products which are very much suitable to the lower and middle class customers. The tax benefits available to these products and also their pricing procedures are discussed. Gupta, P.K. (2008) in his book on “Insurance and Risk Management” analyses the different aspects of insurance and also the related risk management components. The comparative cost-benefit analysis of insurance is also depicted comprehensively in the book. Inderjit Singh (2009) in their Book on “Insurance and Risk Management” analyze the different facets of the privatization of Indian Insurance Sector. The different approaches of managing risk based capital are discussed. This has developed the growing interest in the development of risk management in life insurance industry.

The life insurance industry in Chittorgarh, like in any other city, has quest to deliver quality services to its customers and minimizing their risk. Over the past decade, competition in the life insurance industry has greatly increased in Chittorgarh as many new branches are opening up.

List of life insurance companies in chittorgarh district is as follows:

1. Life insurance Corporation of India
2. Bajaj Allianz Life Insurance, Meera Market, Chittorgarh
3. *Birla Sunlife Insurance* Co Ltd, Bhilwara Road, *Chittorgarh*
4. ICICI Prudential Life Insurance Company Limited, Fort road, Chittorgarh
5. Sahara Life Insurance, Pratap Nagar, Chittorgarh
6. SBI Life Insurance Ltd, near Roadways bus stand, Chittorgarh

There is the need to increase understanding of relevance of risk management in life insurance industry.
In the view of the above, the main problem of this study is: the lack of empirical data available about life insurance industry in Chittorgarh.

## 1.4 PURPOSE OF THE STUDY

The main purpose of this study is to develop a tool and technique for risk management for life insurer to analyze the customer at primary stage for the risk he/she is exposed to.

## 1.5 MAIN OBJECTIVES OF THE RESEARCH WORK

In view of growing complexity of Insurance business and the dynamic operating environment, risk management becomes very significant. Insurance companies already realize the significance of risk, and expect risk to become even more important in the future. Even though, improvements in risk management strategy adopted by companies are essential. Insurance and risk management experts believe that risk management needs to be the priority of insurance companies. The risk management function in insurance is well-developed, but shows some tangible gaps with respect to current scenario. The objective of study is to identify the level of risk management in insurance companies in India & develop a good risk framework with strong governance structure so that the insurance companies should know how to mitigate the risk. The present study is undertaken to assess the impact of Risk Management and Risk Based Supervision measures introduced by IRDA. The main objective of the study is to evaluate the benefits of these measures on the overall working of Insurance Companies.

Thus, objective of this study can be summarized in following points:

- To study the impact of risk management guidelines of IRDA.
- To evaluate the benefits of such measures in life insurance companies.
- To identify the level of risk management in insurance companies.
- To identify the gap between the prevailing risk management framework and requirement of the time.
- To develop a good framework that abides with the guidelines of IRDA for risk management in life insurance companies.

## 1.6 RESEARCH QUESTIONS

The study seeks to answer the following specific research questions:

1. What are the determinants of risk for life insurance?
2. To what extent these determinants can affect a life insurer?
3. How the relationship between risk management and life insurance industry is influenced by customer's background data (gender, age, education, income level)?

## 1.7 IMPORTANCE OF PROPOSED RESEARCH WORK

Insurance essentially is an arrangement where many, who are exposed to similar risk, share the losses experienced by a few. According to Rejda, (2004) risk is defined as uncertainty concerning occurrence of a loss. According to Vaughan, (2003) risk management is a scientific approach to dealing with pure risks by anticipating possible accidental losses and designing and implementing procedures that minimize the occurrence of loss or the financial impact of the losses that do occur. Rejda (2004) mentions that for insurance to work successfully the loss must not be catastrophic and it means that a large proportion of the exposure units should not incur losses at the same time. The extent of the challenge for insurance companies depends on the state of their risk management strategy, and this paper will results in revealing the state of the risk management in Indian insurance industry. A properly structured risk identification, analysis, and mitigation process can moderate the risks associated with insurance companies. This paper will help in identifying the gap between current & required risk management framework. This paper will also help insurance companies categorizing their prospective customers according to the risk exposed in insuring them.

## 1.8 SCOPE

Risk Analysis and Risk Management has got much importance in the Indian Economy during this liberalization period. The foremost among the challenges faced by the Insurance sector today is the challenge of understanding and managing the risk. The very nature of the insurance business is having the threat of risk imbibed in it. Insurance companies themselves are business in managing risk therefore it is the upmost priority for them to manage their own risk. This thesis is limited to the study of life insurance companies in Indian financial sector. The study covers the major life insurance companies in Rajasthan. The study is concentrated on risk management strategy, policy or internal control of these companies. The reason for choosing risk management as research scope is that IRDA has issued a set of guidelines on corporate governance in 2010 which contained a reference to the setting up of a mandatory risk management committee (RMC). This study will show that whether the companies are abiding to guidelines of IRDA and also shortcomings of the current methodology used to analyze risk, and the elements that are missing in the current procedures of risk management. This study also surveys the people to identify the risk involved for life insurance companies in insuring those people. This study will help in identifying the percentage of risk exposed with the people to whom insurance companies are providing life insurance.

Thus, scope of this research can be summarized in following points:

- It covers the life insurance companies & prospective customers in Rajasthan.
- It covers the risk management policies of these companies.
- It identifies the risk exposed with the people to whom life insurance companies are insuring.

## 1.9 LIMITATION OF THE STUDY

Following are the limitation of the study:-

1. The study is limited by constraints of resources, access and time.
2. The study could have been done on every suburbs of Chittorgarh for respondents to complete questionnaire for the study.
3. Language is another access limitation as it will be difficult translating some statements into local dialects perfectly.
4. Not every Life insurance company employees in Chittorgarh cooperated for the study.
5. The sample size of the study is limited i.e. 200 customers.

## 1.10 DELIMITATION OF THE STUDY

The study is specifically delimited to the following:-

1. Only six life insurance companies in Chittorgarh were studied.
2. Only individual customers, not institutional customer, who use the services of group life insurance, were included in the study.

## 1.11 STRUCTURE OF THE THESIS

The thesis would be structured into six chapters. Chapter one gives an introduction to the research. Chapter two is about the theoretical background to the studies. Chapter three describes the methodology for the studies. Chapter four looks at topic undertaken. Chapter five focuses on data analysis, discussion and interpretation of the results. Chapter six contains key findings, recommendations, suggestion for further research and conclusion.

Chapter 1 Introduction

In this chapter we will deal with background to the study, problem statement, purpose of study, objectives of the study, research questions, significance of the study, limitation of the study, delimitation of the study, structure of thesis.

Chapter 2 Literature Review

In this chapter we will survey and abstract academic journals, conferences proceedings, technical reports, books, etc on the nature of the risk management problem in insurance industry. It covers the development of insurance industry, concept of risk management in insurance industry, determinants of risk management in insurance industry and influence of demographic variables.

Chapter 3 Life insurance industry

This chapter covers what is life insurance, need for life insurance, life insurance industry overview, consumer segments and industry potential.

Chapter 4 IRDA guidelines

This chapter includes concept and methods of risk analysis and risk management by attention to IRDA guidelines for risk analysis in Insurance Industry. This chapter refers to introduction to risk management in insurance sector and include some definitions and declaration of objective of risk management, reviewing of risk management methods, explanation of risk management cycle, presses and structure, IRDA guidelines in risk management.

Chapter 5 Risk Management

This chapter covers concept of risk management, its process, risk management practices in Indian insurance industry, modern trends of risk management, background, risk drivers, risk framework, franchisee v/s policyholder interest, CRO role, risk management tools and risk analysis

Chapter 6 Risk management & insurance planning

This chapter includes proforma of agent's confidential report, life insurance pricing element, basis of rating in India, class rating, importance of underwriting, basic underwriting principles and making an underwriting decision.

Chapter 7 statistical data

This chapter includes some statistical data about Chittorgarh district

Chapter 8 Research Methodology

In this chapter we will discuss about research perspective, statement of hypothesis, source of data collection, sample size, sampling method, method of data collection and instrument used.

Chapter 9 Data Analysis

In this chapter we will discuss the data collected from respondents and interpretation of data.

Chapter 10 Findings & Conclusion

This chapter includes findings from prospective customers, recommendation, suggestions and conclusion.

# CHAPTER 2 LITERATURE REVIEW


## 2.1 OVERVIEW


## 2.2 DEVELOPMENT OF INSURANCE INDUSTRY


## 2.3 CONCEPT AND THEORITICAL FRAMEWORK


## 2.4 Determinants of Risk Management in Insurance Industry

## 2.5 Influence of Demographic Variables

## 2.1 OVERVIEW

This chapter covers brief historical overview of the insurance industry, Players and development of insurance industry, historical overview of the Insurance Industry in Chittorgarh, Risk management concept, determinants if risk management in life insurance industry, and Chapter Summary.

## 2.2 DEVELOPMENT OF INSURANCE INDUSTRY

Insurance is dated back as old as the story of mankind and the instinct which prompts businessman of today in securing themselves against any incidental occurrences existed in primitive men also. There was the need to avert the evil consequences of these incidental occurrences' to make some sort of sacrifice in other to achieve security. The concept of insurance is a development of the recent past, especially after the industrial era, which is dated back almost 6000 years ago. source (http://www.scribed.com/doc/10068289/Brief-History-of-Insurance, downloaded on January 15, 2011).
The development of insurance industry can be studied as follows:-

**CONCEPT OF INSURANCE**

The concept of insurance was also given in Dharmasastra (Yagnavalkya) and Arthasastra (Kautilya). In ancient time, the existence of insurance can be supported in the form of marine trade loans and carriers contracts.

But the life insurance in its present form came to India with the establishment of Oriental Life Insurance Corporation, a British firm, in Kolkata by Anita Bhavsar in 1818.
Generally, the company serves European clients. But this company was failed in 1834.

In 1829, the Madras Equitable had begun business of life insurance in Madras presidency Afterward, in 1870 the British Insurance Act was enacted which leads to the development of Bombay Mutual Life Assurance Society (1871), Oriental (1874) and Empire of India (1897) in last three decades of nineteenth century.

These companies began their activities in Bombay Presidency. This period was dominated by foreign insurance offices. The Indian life Assurance Companies Act was enacted in 1912. It was the first statutory measure to regulate life insurance business.
Later on, in 1928, the Indian Insurance Companies Act was enacted which enable the government to collect statistical data about both life and non-life insurance business transacted in India by the insurers.

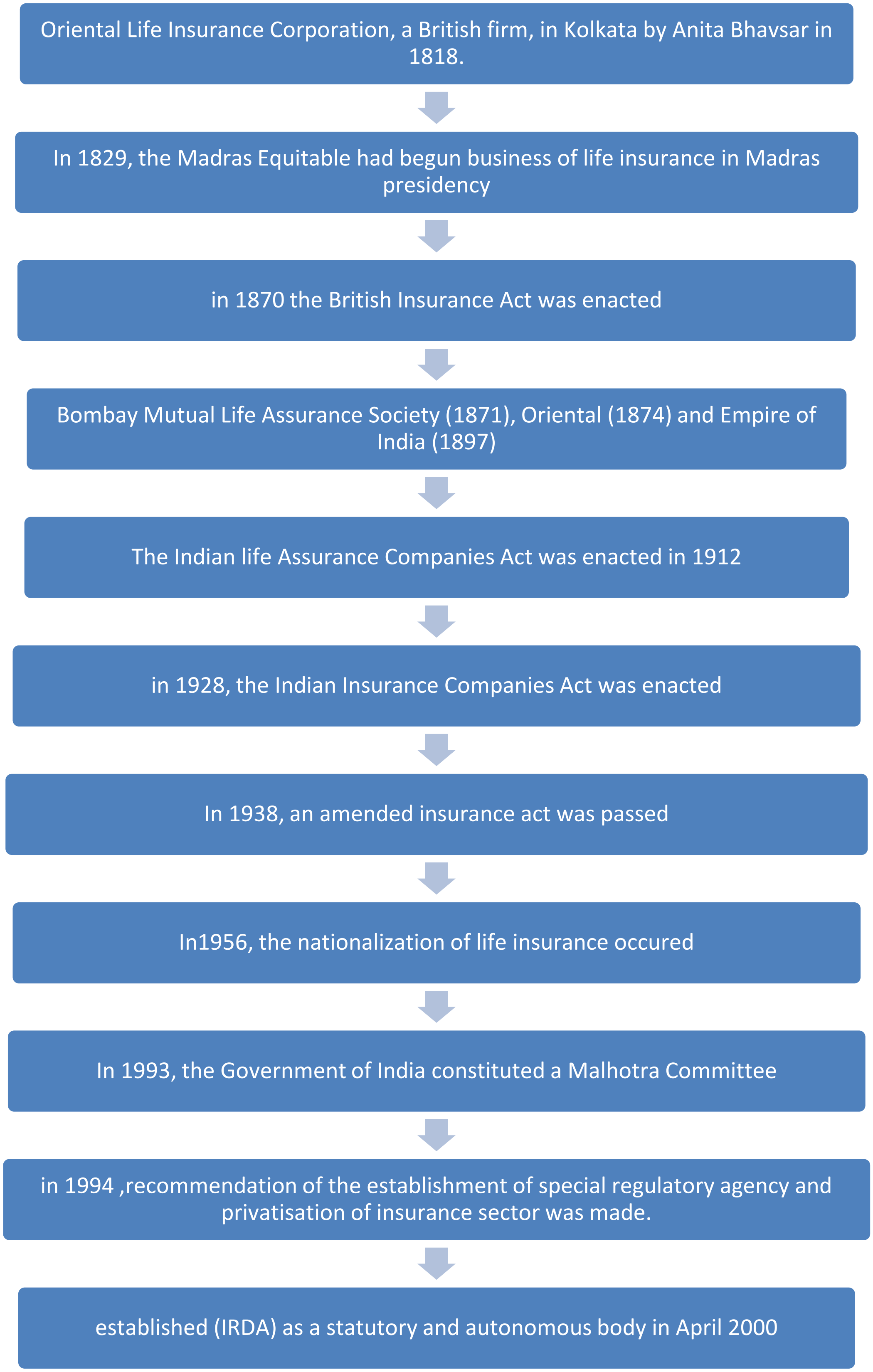
In 1938, an amended insurance act was passed by consolidating the earlier legislation, which was called the Insurance Act, 1938.

The main objective of this act was to protect the interest of insured person and to provide comprehensive provisions for effective and efficient control of insurers activities.

In 19th January, 1956, the finance minister C. D. Deshmukh announced the nationalization of life insurance by passing an ordinance in the Parliament. As the result of ordinance, Life Insurance Corporation of India (LIC) came into an existence on September 1, 1956 by absorbing 154 Indian insurer, 16 foreign insurer and 75 provident societies (total 245 companies) which were engaged in life insurance business in India. The LIC had the monopoly in insurance businesses till the insurance sector was reopened to the private players in 2000.

In 1993, the Government of India constituted a Malhotra Committee under the chairmanship of Mr. R N Malhotra, former Finance Secretary and Governor of RBI, with the objective of insurance sector reforms which were compatible with new economic reforms. The committee submitted its report in 1994 which make a recommendation of the establishment of special regulatory agency and privatisation of insurance sector.

Accepting the recommendation of Malhotra committee, Government of India, passed the Insurance Regulatory and Development Authority (IRDA) Bill in Parliament in December 1999 and established Insurance Regulatory and Development Authority (IRDA) as a statutory and autonomous body in April 2000, to regulate the insurance industry in India. With the establishment of IRDA, the door of Indian insurance industry has been opened for the private companies.


Oriental Life Insurance Corporation, a British firm, in Kolkata by Anita Bhavsar in 1818.
In 1829, the Madras Equitable had begun business of life insurance in Madras presidency
in 1870 the British Insurance Act was enacted
Bombay Mutual Life Assurance Society (1871), Oriental (1874) and Empire of India (1897)
The Indian life Assurance Companies Act was enacted in 1912
in 1928, the Indian Insurance Companies Act was enacted
In 1938, an amended insurance act was passed
In1956, the nationalization of life insurance occured
In 1993, the Government of India constituted a Malhotra Committee
in 1994 ,recommendation of the establishment of special regulatory agency and privatisation of insurance sector was made.
established (IRDA) as a statutory and autonomous body in April 2000

### 2.2.1 Definition and Brief Historical Perspective

**Life Insurance**

Section 2(11) of Insurance Act 1938, define the life insurance business as the business of effecting contracts of insurance upon human life, including any contract whereby the payment of money is assured on death (except death by accident only) or the happening of any contingency dependent on human life.

A life insurance policy is a contract between the insurer and policyholder that the insurer will pay a certain sum of money if the policyholder dies or any other specified contingency happens. In lieu of this assurance, insurer takes a premium amount from the policyholder.

Section 2(11) of Insurance Act 1938, define the life insurance business as the business of effecting contracts of insurance upon human life, including any contract whereby the payment of money is assured on death (except death by accident only) or the happening of any contingency dependent on human life.

A learned author J.H. Maggi define the life insurance is a contract to which the insurer, in consideration of a premium, undertakes to pay to the person for whose benefit the insurance is effected a sum of money on the death of the person whose life is insured or in his attaining a certain age.

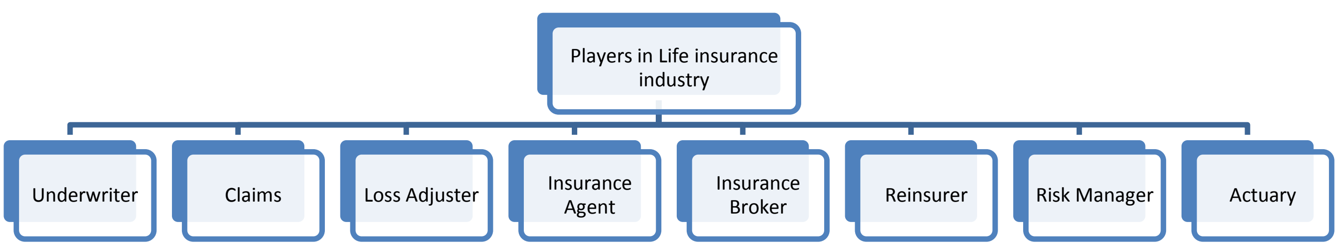
Life insurance provides financial security to the family of a policyholder in the event of his/her death. This is the most popular insurance policy, as most people want to ensure that their family members remain financially secure in the event of their death.

Risk management aimed at preventing and minimizing loss is termed as insurance. A growth in every economy generates different types of business, and increases in the number of businesses becomes complex with its' associated risks. Awareness of the important role insurance services play is of meaning to many business professionals. It promotes financial and social stability, mobilizes savings, supports and promotes trade, commerce and also improves the quality of the lives of individuals. In an increasing globalizing world economy, countries all over the world are faced with challenges from environmental regulations and emerging global trends in the insurance industry, innovations in technology and the insurance sector liberalization. These trends have impacted more pronounced on developing countries, where liberalization of the insurance sector provided due consideration is paid to putting in order; an efficient and well functioning institutional and regulatory framework, tailored national policies and well planned sequential commitments on insurance liberalization (Trade and development aspects of insurance services and regulatory frameworks. Source (http://www.unctad.org/en/docs/ditctncd20074_en.pdf downloaded on January 15, 2011).

**Life insurance**

A contract entered into between a policy holder and an insurer to pay a designated beneficiary sum of money upon the death of the insured person is termed life insurance, pension, savings and health insurance all falls under same. Life insurance has the most prospects to gain lower income sections of the population. Develop countries have the biggest share of the life insurance market. Market penetration or premiums for insurance as a percentage of GDP stands as; Japan with the highest at 8.26percent, followed by Western Europe at 5.1percent and 4.12percent for North America. South and East Asian economies lead 3.77percent in the emerging markets, with Africa and South Africa at 3.41percent in second position, Latin America and the Caribbean at 1.01percent and the Middle East and Central Asian economies at 0.47 percent. - (SIGMA edition No. 2/2005, World Insurance in 2004: Growing Premiums and Stronger Balance Sheets.)

## 2.2.2 Players and Role of Insurance Service in the Industry




The insurance industry like any other industry depends on the expertise of many individuals in their field, which includes:

- **Underwriters**

Underwriting is the process of assessing the eligibility of a customer in receiving equity. An insurance underwriter evaluates the risk and exposures of potential clients. He/she decides of the risk of an applicant seeker on behalf of the insurance company; by determine if the particular insurance package would be of beneficial to the applicant as well as the insurance company. The role of an underwriter needs analytical and technical skills, a good communication skills and experience in research, not living out computer experience. Typically, underwriter takes analyzes of a financial statement and prepares a report using flowcharts and graphs in summarizing the company's financial gains, giving expert advice by submitting to management for a review before taken any action on an insurance application. source (http://www.my-insurance-guide.co.nz/roles-in-insurance.php).

- **Claims**

Claims are request made formally to an insurance company in returns for payment base on the terms of an insurance policy. They are carefully evaluated and given the needed attention, by claims staffs that examine the policy, interview the claimant and those involved in getting evidence to support claims. In arriving at an accurate decision, claims staff works with investigators and loss adjusters before making recommendations for payment. On the other hand, claims staffs are responsible in helping claimant files their claims in order (http://www.my-insurance-guide.co.nz/roles-in-insurance.php).

**• Loss Adjuster**

A claims specialist who investigate complex claim on behalf of insurance company and holder of an insurance policy is referred to as loss adjuster. The loss adjuster works on a damaged property claims to determine the property written off on insurance, review policies, get supporting documents to validate claims, and investigate site of the damage to determine if property damaged deserves compensation. They can be independent contractors or employees of an insurance firm (http://www.my-insurance-guide.co.nz/roles-ininsurance.php).

**•Insurance Agent**

An insurance agent also referred to as insurance sales agent represent and act on behalf of an insurance company. They play a pivotal role in helping clients choose insurance policies that suit their needs and aide in the completion of a policy application. Their salaries are base on commission since they are not permanent employees of any insurance company, and either works as freelancers to offer multi insurance packages from different insurance companies, or affiliated with just one company. Most of them are specialist in life insurance and have extensive knowledge of a product for the company they represent (http://www.my-nsuranceguide.co.nz/roles-in-insurance.php).

**•Insurance Broker**

An intermediary between an insurer and insure is called insurance broker. They use their in-depth knowledge of risk in the insurance market to find and arrange the best deal when it comes to insurance policies for an insurer. They also do advice clients on the pursue of claims, brokers may specialize in a core area in a firm or involved in multi functions including business development. source:(http://www.my-insurance-guide.co.nz/roles-ininsurance.php).

**•Reinsurer**

Transferring portion of a risk portfolio to another party by agreeing in principles to reduce the likelihood of paying large obligation as a result of a claim is termed as reinsurance. In short a reinsurer works to insure the insurer. The reinsurer needs to have an in-depth knowledge in the insurance market and its relevant legalities to stand such responsibility. The financial capacity to pay claims, handle disputed claims and advice on various insurance issues are given by the reinsurer to an insurance company. source (http://www.my-insurance-guide.co.nz/roles-in-insurance.php)

**•Risk Manager**

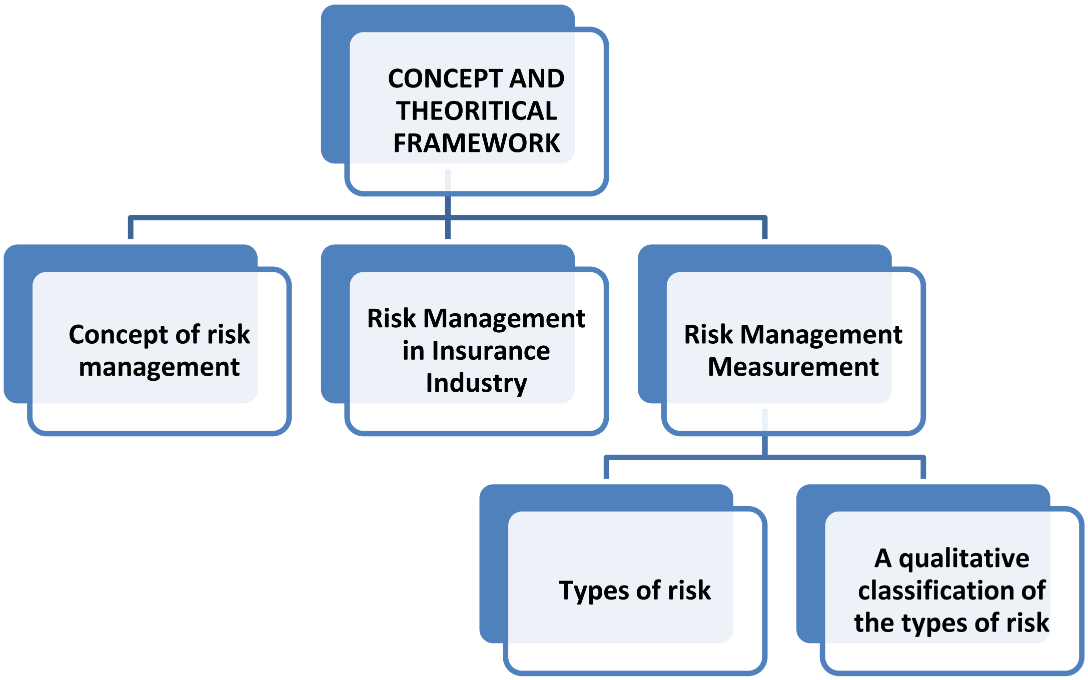
Risk manager is said to be one who manages risk by assessing and quantifying business risk, taking into accounts control or measures to reduce them. In insurance, the risk manager evaluate risks which endangers' the company's funds or capacity to pay claims. Their work is done together with underwriters by given the degree of risk the company can cover and profit realization on an insurance application. Advice on investment strategies and pricing on policies are all within his domain. Source(http://www.my-insurance-guide.co.nz/roles-ininsurance.php).

**•Actuary**

A business professional who deals with the financial impact of a risk and uncertainty with mathematical probabilities, and thus predict future events. This is done with statistical data, demographics, financials, economic and social data in assessing risks related to financial planning. The actuary should be able to communicate technical concept to non-technical individuals. source (http://www.my-insurance-guide.co.nz/roles-in-insurance.php).

## 2.3 CONCEPT AND THEORITICAL FRAMEWORK

Insurance companies are in the business of taking risks. Therefore, insurance companies should be good at managing their own risks. As an emerging need IRDA issued a set of guidelines on corporate governance in 2010 which contained a reference to the setting up of a mandatory risk management committee (RMC). The RMC has to lay down a risk management strategy across various lines of business, and the operating head must have direct access to the Board. However, IRDA left it to the companies to work out the details of how risk management functions were to be suitably organized by them given the size, nature, and complexity of their business. But that should in no way undermine the operative independence of the risk management head. Because of this margin, most of the Indian insurance companies have given risk management responsibilities to one of the actuaries.




### 2.3.1 CONCEPT OF RISK MANAGEMENT

Thomas S. Y. Ho (Nov 2003) stated that "recently, perhaps one of the most active areas of financial research is risk management. Extensive research has led to new risk management methods. For example, introductions of Value-at-Risk (VaR), Earnings-at-Risk (EaR), risk adjusted performance measures are some of many innovations adopted in practice. However the research tends to focus on risk management for trading floors or commercial banks. Few solutions apply to the insurers."

Shriram Gokte stated that "Today it is well recognized that sound management of an insurer, as for other financial sector entities, is dependent on how well the various risks are managed across the organization."

David F. Babbel & Anthony M. Santomero (May 1996) stated that "The past decade has seen a dramatic rise in the number of insolvent insurers. Mis-pricing of insurance policies, natural catastrophes, and changes in legal interpretations of liability and the limits of coverage hurt still others. The "churning" of policies by unscrupulous sales agents, insolvencies among the reinsurers backing the policies issued, non-compliance with insurance regulation, and malfeasance on the part of officers and directors of the insurance companies affected some as well. But despite the numerous and disparate apparent causes of these insolvencies, the underlying factor in all of them were the same: inadequate risk management practices. In response to this, insurers almost universally have embarked upon an upgrading of their financial risk management and control systems to reduce their exposure to risk and better manage the amount they accept."

Anderson J.L. and Dow J.B. 16 deal with the basic for construction of mortality tables.

Hubner S.S. in his book, explain the economic value of human life. The economic importance of human life is comparable to the economic importance of property, business etc. Life insurance is the most practical way protecting the economic value of human life just as the general insurance to protect the economic value of properties & business affairs.

Robert Riegal and Jerone S, Nillar discuss the General principles of Insurance relevant to the chemistry of insurance concept.

Underwood R.E. sets the basis of compound interest and table of mortality that play significant role in calculating insurance premium.

Alok Tewary (2003) in his article states that skills and experience is necessary to tap the employment opportunities arising from the liberalization of insurance sector. He brings out the difference between pure risk and speculative risk, where pure risk can be overcome only through the techniques of risk management. Insurance business needs lot of capital, skill and talent to manage the marketing treasury operations, administration and vigilance. He discusses on the eligibility criteria for banks to enter into insurance business, the capital adequacy ratio of the bank should not be less that 10% and NDA levels of the bank should be reasonable etc.

Prof. P.C. James by understanding the probabilities of the occurrence of risks leading to loss, it is possible to convert risk situations into catalysts for driving the economic momentum in society. In fact that insurance is public good; regulation, self-regulations and standards normally requires that rates and terms are fair, reasonable and not excessive.

Cawley and Philipson (1999) in the life insurance market, provide evidence against the existence of adverse selection using multiple data sources. In particular, using the HRS dataset, they show that both the self-reported mortality and the estimated actual mortality are negatively or neutrally correlated with coverage, after controlling for age, gender, smoking status, marital status, income and wealth and bequest motives. In other words, their results imply that higher-risk individuals are less likely or at least not more likely to have life insurance coverage than the lower-risk individuals. They suggest that a potential explanation for their findings is that individual policyholders may not have better information about their mortality risk than the life insurers after underwriting.

Hofested G. stated the major function of life insurance is to protect against financial loss from loss of human life. Besides covering the risk of death, it covers the risks of disability, critical illness and superannuation. Life insurance is therefore developed as economic component of human life. Any event affecting an individual's earning capacity has an impact on the individual's human life value. This event may be premature death, incapacity, retirement or unemployment.

Nikhil Gupta (2001) in his article views that among the strategies that Indian insures adopt, best opportunity lies in the product's core function that is in providing a safety net. Though insurance is pooling of resources to help a few in distress, it certainly requires refining the notion of responsibility. The author brings out the highlights in rising proportional aspects, penetration level and other projected macro-factors along with global insurance market during the year 1999. Each private player's view points are to sell the product for customers at their own risk. Protection is discussed separately with their capital base, centre owned, number of agents and free look period.

Krishnamurthy S, Mony S V and et al (2005) in his paper "Insurance Industry in India: Structure, Performance and Future Challenges" stated about the status and growth of Indian insurance industry after liberalization and discuss the future challenges and opportunities faced by the insurance sector.

Nanda R (2007) in his paper "Being an Insurance Agent, the pride and the prejudice", stated that there is a huge potential of life insurance in Indian market because India is second fastest growing economy and fourth largest economy in term of purchasing power.

Basavanthappa C and Rajanalkar L (2009) in his paper stated that the private insurance companies have performing well over the year. The market share of private life insurance companies were increasing over the year which create a lot of opportunity for them. There was cut throat competition in this sector which would be beneficial to all. To get the competitive advantage over the competitor, companies bring out the innovative products and provide various facilities to the customer.

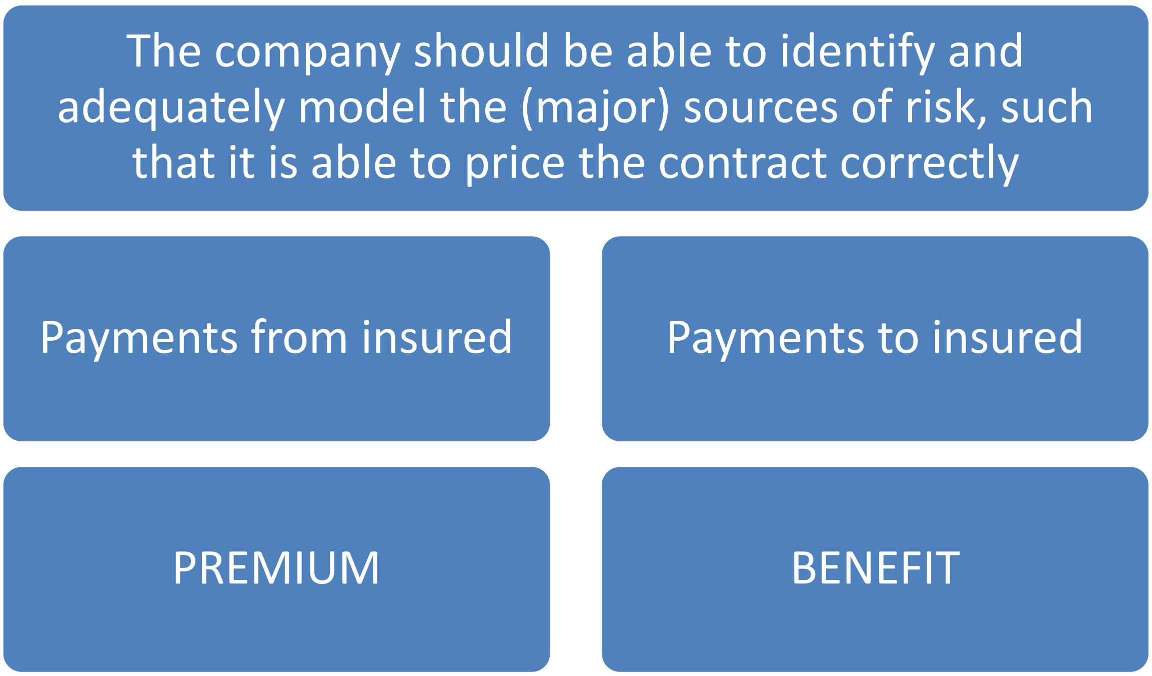
Shendey B K and Neelkant Rao (2010), in his paper titled "Trends in Insurance Industry in India since 21st Century" opined that the privatization of insurance industry increases the growth of this sector and the monopoly of LIC has been overcome. The total life insurance premium has increased four-folds since liberalization of insurance industry. He also stated that the life insurer continuously focuses on the product innovation and new schemes to increase its policyholder base.

Venkatesh M (2013) in his paper "A Study of Trend Analysis in Insurance Sector in India" discusses the history of insurance and analyzes the life insurance industry in India. The study reveals that Indian insurance sector is increasing rapidly and trend percentages are increasing over the year. The author also focuses of insurance density and stated that in spite of higher insurance growth rate India has less insurance density as compared to world density.

Kumari Hymavathi T (2013), in their paper "Performance Evaluation of Indian Life Insurance Industry in Post Liberalization" stated that the life insurance industry has achieved a tremendous growth in the amount of premium collected after the opening of it for private sector. On the basis of financial performance analysis of insurance industry, it can be conclude that the performance of insurance business shows a favourable growth. Further, the study suggests that for sustainable growth of life insurance industry, it is necessary to provide innovative product and better facilities to policy holder.

The purpose of this chapter is to explain the connection between insurance sector & risk management. The chapter also described the key elements behind risk management. The above review shows the need of risk management and its significance in today's era but very less research work is done in developing tools and techniques for risk management in life insurance. The present study is in attempt to fill the gap in this area. This study will cover the life insurance companies in Chittorgarh division.

### 2.3.2 RISK MANAGEMENT IN INSURANCE INDUSTRY




A life insurance contract specifies a stream of payments between the insured and the insurance company contingent on some predetermined insurance events. Payments from the insured are called premiums, and payments to the insured are referred to as benefits. The premiums usually consist of a lump sum premium at initiation of the contract and continuous premiums paid until retirement as long as the insured is alive (and active). Standard textbook examples of benefits are: Pure endowment, term insurance and (temporary or whole) life annuity. For an explanation of these insurance contracts and an introduction to life insurance in general, we refer to Gerber (1997), in discrete time, and Norberg (2000), in continuous time.

When entering the contract the qualitative nature of the premiums and benefits is agreed upon by the insured and the insurance company. Furthermore, the insured specifies either the premiums or benefits quantitatively, and it is left to the insurance company to calculate the remaining quantity. Hence, both the quantitative and the qualitative nature of benefits and premiums are stated in the insurance contract. Typically the quantitative specifications serve as guarantee to the insured leaving the company unable to lower benefits, or equivalently increase premiums, if it observes an adverse development of the financial market and/or the insurance portfolio. Thus, since the company is unable to alter the specifications in the contract in order to take an unfavorable development of the financial market and/or the insurance portfolio into account, it is of importance for the company to understand the risks associated with entering the insurance contract. Hence, the company should be able to identify and adequately model the (major) sources of risk, such that it is able to price the contract correctly. However, an adequate description of the risks is not only of importance when pricing the contract. It is important throughout the course of the contract, both for internal control purposes and for measuring the impact of different scenarios. Furthermore it is believed that future solvency rules will require the company to constantly monitor and measure the risks of the company. Having measured the risks it is natural for the company to consider methods to reduce the risk, and thereby lower the effect of the different scenarios in the traffic light system (and in the future the solvency requirements). Here, some possibilities are trading in the financial market and purchasing reinsurance.

### 2.3.3 Risk Management Measurement

#### Types of risk

We focus on two main types of risk for the insurance company:

- Financial risk and
- mortality risk

In the literature mortality risk is sometimes referred to as insurance risk. The company is naturally exposed to other types of risk as well. We mention operational risk and risk associated with future administration costs, such as wages, purchase of computer systems, rent and general maintenance of business operations. The Basel Committee's definition of operational risk is "the risk of losses resulting from inadequate or failed internal processes, people and systems or from external events". Hence, the operational risk covers all losses resulting from errors connected to running the business. This includes both human and system errors. For a detailed description of, and an approach to modelling, operational risk we refer to King (2001) and Cruz (2002).
Here, we further split the financial risk into equity risk and interest rate risk. Hence, in this exposition we disregard other types of risk, such as credit risk, which is the risk associated with the default of the counterparty in a financial transaction. For a detailed description of credit risk see e.g. Lando (2004). The equity risk covers the uncertainty associated with risky investments except bonds, and interest rate risk covers uncertainty associated with future interest rates and hence bond prices. Here, we further divide the interest rate risk into standard interest rate risk, which is uncertainty associated with the development of the currently traded bonds (the currently observable yield curve) and reinvestment risk, which measures the additional uncertainty associated with the entry prices, when new bonds are issued in the market. The reinvestment risk is naturally only of interest if bonds with sufficiently long time to maturity are not traded at the time of consideration. This use of the term reinvestment risk differs from the one of e.g. Luenberger (1998), who uses it to describe the risk associated with the unknown rate of return,

when currently owned bonds mature in the future, and the capital is reinvested in the bond market. Hence, Luenberger (1998) does not distinguish between whether or not the bonds in which the capital is reinvested were traded at the time of purchase of the first bonds. In our terminology, the reinvestment risk only covers the case, where no bonds with sufficiently long time horizon are traded initially, whereas the risk associated with the future rate of return of bonds presently traded is covered by the standard interest rate risk.

The mortality risk consists of two fundamentally different sources of risk:

- Systematic and
- Unsystematic mortality risk.

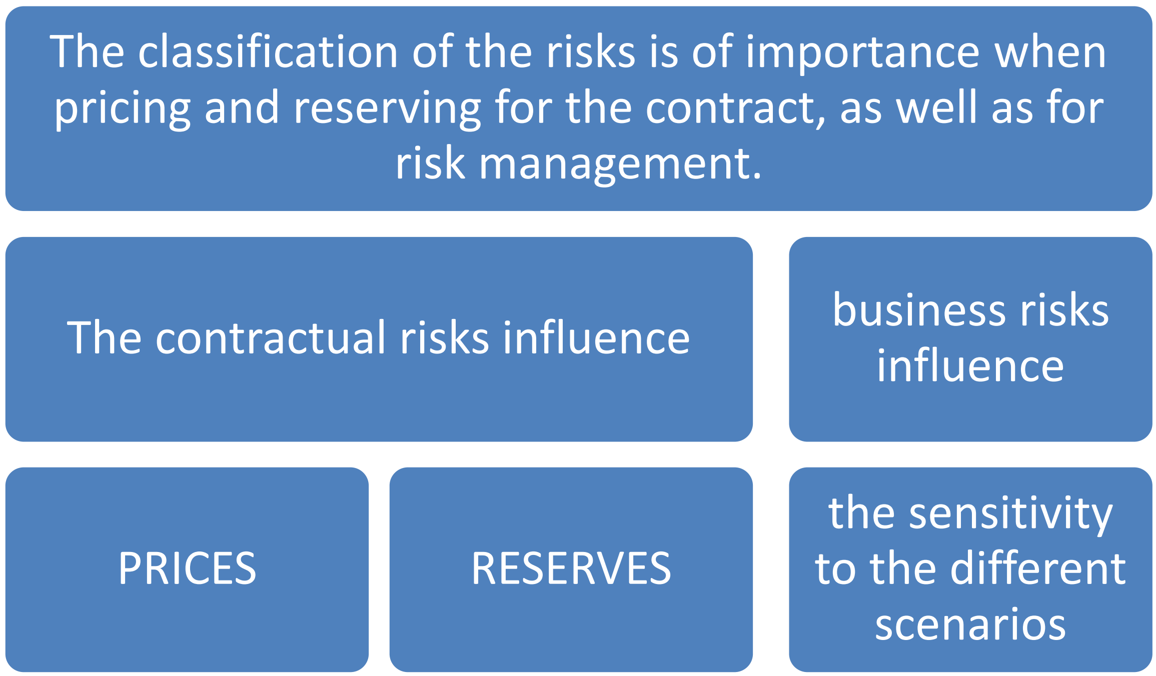
| SYSTEMATIC RISK | UNSYSTEMATIC RISK |
| --- | --- |
| • refers to the uncertainty associated with changes in the underlying mortality intensity<br>• Non-diversifiable | • refers to the risk associated with the random development of an insurance portfolio with known mortality intensity<br>• Diversifiable |

Here, the unsystematic mortality risk refers to the risk associated with the random development of an insurance portfolio with known mortality intensity. From the strong law of large numbers we know that the relative impact of the unsystematic mortality risk is a decreasing function of the number of insured, and if the insurance portfolio is infinitely large, the unsystematic mortality risk is eliminated. Thus, the unsystematic mortality risk is diversifiable.

The systematic mortality risk refers to the uncertainty associated with changes in the underlying mortality intensity. Since changes in the underlying mortality intensity affect all insured, the systematic mortality risk is an increasing function of the number of insured with similar contracts. Hence, in contrast to the unsystematic mortality risk the systematic mortality risk is non-diversifiable. However, a reduction (elimination) of the systematic mortality risk is possible, if the company both sells contracts, where the payoff is contingent on survival, and contracts, where the payoff is contingent on death.

Note that similar considerations can be made for other transition intensities, e.g. disability, recovery etc. Hence, we can interpret the mortality risk as covering all biometric risks.

**A qualitative classification of the types of risk**




In order to obtain a qualitative description of the types of risk we classify them according to the exposure of the company. First we concentrate on the contract and classify the types of risk according to whether the company is exposed to the risk as a consequence of entering the contract.

Hence, the different types of risk are divided into the following two classes:

- Contractual risks: The types of risk to which the insurance company is exposed as a consequence of entering the contract.
- Non-contractual risks: The types of risk, which are not contractual risks.

Note that if entering the contract does not expose the company to a type of risk, it is a non-contractual risk. Within the class of contractual risks we further distinguish between whether the company is able to eliminate the type of risk by trading in the financial market.

We say that a type of risk can be eliminated if all uncertainty associated with the type of risk can be eliminated by trading in the financial market. To determine whether this is the case, we consider the contingent model where the particular type of risk accounts for all uncertainty. Now all uncertainty can be eliminated if the company can invest a fixed initial amount and trade in the financial market, such that it always has exactly the desired amount.

Hence, the class of contractual risks consists of the following sub-classes :

- Hedgeable contractual risks: The types of contractual risk for which the company, given a certain fixed initial investment, can eliminate all uncertainty by trading in the financial market.
- Unhedgeable contractual risks: The types of contractual risk for which the company, given a certain fixed initial investment, cannot eliminate all uncertainty by trading in the financial market.

The definitions above are closely related to the definition of hedging in financial theory. Here, it is important to note that in the contingent model it may be possible to eliminate the so-called short-fall risk, which is the risk of holding insufficient funds, related to an unhedgeable contractual risk by investing a sufficiently large amount at initiation of the contract. However, since the company in this case has a (large) positive probability of holding more than required to cover the benefits, the risk is not eliminated. Hence, one cannot turn an unhedgeable contractual risk into a hedgeable contractual risk by investing a sufficiently large amount.
The idea of eliminating the shortfall risk is closely related to so-called super-replicating (super-hedging) strategies, the classes and sub-classes above are connected to the contract only, so it can be interpreted as a classification of the risks on the liability side. However, it is important to note that the effect of the different types of risk on the balance sheet depends on both the considered insurance contract and the investment strategy.
Hence, in order to correctly describe the exposure of the company to the different types of risk, one should involve the asset side as well. Here, the assets only refer to the assets associated with the liabilities, hereas the assets corresponding to the equity capital is disregarded. The importance of including the assets has also been observed by the life insurance companies, which in general devote a large amount of effort to ALM (asset liability modelling/management).
The necessity to involve the asset allocation arises since the value of the assets and liabilities may increase or decrease at the same time. Hence, in some cases the company may be able to reduce a type of unhedgeable contractual risk by traded wisely in the financial market.
On the other hand the company may decide not to eliminate the uncertainty associated with a hedgeable contractual risk. It may even expose the balance sheet to non-contractual risks. In order to describe the types of risk to which the insurance company is exposed, when taking the asset allocation into account, we introduce:

Business risks: The types of risk to which the combined balance sheet of the company is exposed.

As noted above it holds that even for a company, which is aware of the contractual risks to which it is exposed, the mere possibility to eliminate or reduce a type of risk by trading in the financial market is not equivalent to the fact that the company actually decides to do so. Hence, in some cases the company exposes the balance sheet to risk(s) that could have been avoided. This behavior can be explained by the fact that the company follows an investment strategy which also focuses on the expected rate of return. In particular, the belief that the long term return is higher on stocks than on bonds encourages many insurance companies to invest in stocks even when the financial risk associated with the contract only consists of interest rate risk.

For a specific contract (or portfolio of contracts) and a given investment strategy the business risks consist of the following three sub-classes:

- Non-hedged hedgeable contractual risks: The types of hedgeable contractual risk, which the company has not eliminated.
- Unhedgeable contractual risks: The types of contractual risk for which the company, given a certain fixed initial investment, cannot eliminate all uncertainty by trading in the financial market.
- Gambling risks: Non-contractual risks to which the company is exposed as a consequence of the investment strategy.

The method available to the company in order to eliminate/convert a certain type of business risk depends on the sub-class to which the risk belongs. A non-hedged hedgeable contractual risk can by definition be eliminated by trading in the financial market, whereas it is impossible to eliminate an unhedgeable contractual risk once the contract is signed.

However, risks, which otherwise would be unhedgeable contractual risks may be transferred to the insured and thus they may be converted into non-contractual risks by designing the contract cleverly. The so-called mortality-linked contracts is an example of a type of contracts designed to convert an unhedgeable contractual risk into a non-contractual risk. Here, the systematic mortality risk is transferred from the insurance company to the insured. The gambling risks can naturally be eliminated simply by altering the investment strategy; such that is does not include investments in the assets which expose the company to the non-contractual risk.

The classification of the risks is of importance when pricing and reserving for the contract, as well as for risk management. The contractual risks influence prices and reserves, whereas the business risks influence the sensitivity to the different scenarios in e.g. the traffic light system and in the future possibly the solvency requirements. It could be argued that the investment strategy, and hence the business risks, also should be of importance when pricing the contract, since a company which follows a risky investment strategy has a larger risk of default and hence exposes the policy-holder to a larger credit risk. However, we ignore this aspect, since the traffic light system and the solvency rules essentially should eliminate the credit risk of the policy-holders.

## 2.4 Determinants of Risk Management in Insurance Industry

The insurance industry is faced with many different kinds of risks:

- Insurance-specific risks on one hand, and
- Investment risks on the other.

**There are risks, such as underwriting risk, which are intrinsic to insurance companies business, and therefore only apply to the insurance industry**

As the systemic importance of the insurance industry has augmented in the last few years and increased attention has been focused on such risks as a result, the question arises what consequences these risks have for the insurance industry in particular, and for the financial markets in general.

In principle, regularly analyzing and assessing these insurance-specific risk factors is the task of the insurance supervision responsible for tracking the business practices of insurance companies. Nevertheless, the clustering of insurance-specific risks poses a potential danger to the entire industry and, as a consequence, to financial stability. Furthermore, when insurance companies transfer risks via the capital markets, the insurance industry becomes increasingly interconnected with the banking sector.

Here, we have chosen a classification method similar to that used in the banking sector, as most of the risks that the banks are subject to, such as market risk, liquidity risk or operational risk; also arise in the insurance industry. However, it must be pointed out that these individual risks have significance for and impact on the insurance industry that is very different from that in the banking sector.

Furthermore, there are risks, such as underwriting risk, which are intrinsic to insurance companies business, and therefore only apply to the insurance industry.

However, it is not possible to concentrate on just a few factors, as systemic relevance most often results from the interplay of several risk factors. In addition, since September 11 it has become obvious that there can be no certainty about the probability and scope of events of loss, nor can their impact be limited to just a few companies or just one risk factor. This is confirmed by the literature (Cummins et al., 1995; The Actuarial Profession, 2002) dealing with insolvency risk in the insurance industry. Since the 1980s, large numbers of insolvencies have occurred in the insurance sector at irregular intervals, most recently in the past two years. Although each of these periods were preceded by similar market developments, in particular a hardening of the market, it is not possible to confidently pinpoint the causes for the waves of insolvencies. It is more likely the interplay of several factors that is responsible for the collapse of these companies. Most frequently, insufficient reserves, rapid growth, overstated assets, fraud and catastrophic losses have been identified as the contributing factors. Thus under specific economic conditions (such as fluctuations on the capital markets, large numbers of — major — incidents, weak economic activity and the like) is in place, no one individual risk factor can be singled out as posing a manager to the system, while at the same time excluding the potential for danger inherent in their factors.

In order to avoid going beyond the scope of this study, we will concentrate, however, on three key risk factors: underwriting risk, market risk and credit risk.

We will subsequently provide an overview of the most common methods for risk assessment and illustrate the most important alternative risk transfer tools.

**Risk Factors in the Insurance Industry**

In principle, the risk factors in the insurance industry can be divided into three groups: underwriting risk, investment risk and nontechnical risk.

- Underwriting risk focuses on the nature of the insurance risk that the insurance company is assuming by selling insurance contracts. This includes, for example, risks associated with calculating premiums, calculating contingent commissions and operating expenses.
- All of the risks that arise in conjunction with the company's asset management come under the heading of investment risk; this includes obsolescence risk, interest rate risk or valuation risk.
- While underwriting risks are liability-side risks, investment risk occurs on the asset side of the balance sheet. All those risks that cannot be assigned to the two above-mentioned categories are grouped under the heading of nontechnical risks, which include sales risk, country risk, legal risk or management risk.

This kind of assignment of risk factors to these three main groups is the classification method most frequently found in the literature. In addition to the International Association of Insurance Supervisors (IAIS), the Austrian Financial Market Authority — and in a slightly broader form — the German Accounting Standards Committee also classify risk factors for the insurance sector in this way. As a contribution to the Solvency II discussion, the International Association of Actuaries (IAA) has drawn up a classification method for the most relevant risks an insurance company faces that is similar to the risk classification method that banks employ. What is interesting about this type of structuring method is that most of the risks that banks are subject to also arise in the insurance business. Using this method to classify risks makes identifying risk – hotspots - in the financial system simpler in light of the increased interconnection of the banking sector with the insurance industry which has come about as the result of the creation of financial conglomerates and bancassurances.

Still, it must not be forgotten that the significance of individual risks for — and their impact on — the insurance industry certainly differs from that for the banking sector. In addition, some risks, such as underwriting risk, focus on the nature of the insurance business and are thus applicable only to the insurance sector.

In the following overview of the key risk factors facing the insurance industry, we will focus primarily on systemic risks, in other words those factors which — if clustered — pose a potential threat to financial markets, or those which arise when the risk management instruments used create a close link between the insurance industry and the banking sector, involving a potential threat to stability.

The following classification was selected:

— underwriting risk
— market risk
— credit risk
— liquidity risk
— operational risk
— other risks

## 2.5 Influence of Demographic Variables

The study also shows that information from customers plays a major role in the demand-auditing process

- Chow-Chua and Lim (2000)

The demand audit checklist includes demographic characteristics of policyholders and non-policyholders; reasons for being insured and not insured; and critical purchasing factors.

Overall, the causal relationships between demographic variables, service quality and customer satisfaction have been examined by a number of studies, in service settings around the world. Crosby and Stephens (1987) in their study explained that highly intangible services such as life insurance consist largely of credence properties and insurance providers should engage themselves in relationship-building activities that emphasize buyer-seller interaction and communication. The results suggest that though relationship marketing adds value to the service package, it is not a substitute for strong, up-to-date core service and this factor is especially true for a 'pure' service such as insurance, which has minor tangible representations of its quality and is highly relational during most transactions. The study also concluded that there is also a lack of price signal in the market due to specialized customer needs and difficulty in comparing prices. Thus, consumers cannot rely solely on price as an extrinsic cue to signal quality. The outcomes of life insurance purchase are often delayed, and thus do not allow immediate post-purchase valuation. As such, the consequences of a purchase do not produce an immediate reaction towards overall satisfaction.

Berry (1995) showed that because of the amount of money that is typically invested in an insurance policy, customers seek long-term relationships with their insurance companies and respective agents in order to reduce risks and uncertainties.

Arora and Stoner (1996) conducted an experimental study to investigate the impact of service quality and name familiarity on the respondents' attitudes and intention to use these services. The researchers opined that the 1990s has been referred to as the era of customer service, and product (brand or service) name familiarity is another variable that has been recognized as having a major influence on the choice of products (services). Results show that perceived service quality has a significant effect on the attitude towards obtaining insurance.

Stafford and Wells (1996) conducted a research on four major insurers. In this study, the researchers examined the differences in perceived service quality among different age groups, education levels and gender. Results suggest that males and females are, overall, identical in their perceptions of claims' service quality. However, there are distinct differences in perceptions between different age groups and educational levels.

Chow-Chua and Lim (2000) in their study found that insurers are widely disliked by customers, and insurance agents talk to clients on average once every eight years. Results found that approximately 44% of the population does not own any form of insurance, for example, life insurance, personal accident insurance, etc. The study also shows that information from customers plays a major role in the demand-auditing process. The demand audit checklist includes demographic characteristics of policyholders and non-policyholders; reasons for being insured and not insured; and critical purchasing factors. The study concluded that the company's and agent's service quality as well as recommendations of friends are factors that significantly affect decisions of purchasing life insurance policies.

Gayathri et al.(2005) conducted a pilot study with the help of SERVQUAL instrument to assess the levels of service quality and its dimensions among four leading insurers in India as well as the relationship of the average scores of individual dimensions with satisfaction of customers of the same insurers. The study identified that the service quality dimensions could be a basis for differentiation of the insurance players that could be developed into a sustainable competitive advantage for the players in the long run. The study further concluded that non-price differentiation instruments have a better potential than price differentiation, because any reaction from the competitors to match non-price differentiation may require changes in the entire service strategy.

Tsoukatos and Rand (2006) in their study developed a SERVQUAL-type service quality instrument for Greek insurance. Confirmatory and exploratory factor analyses were used by the researchers to determine the scale's dimensionality. Path analysis was utilized to examine a model linking service quality, customer satisfaction and loyalty at the level of constructs' individual determinants. The study found that SERVQUAL's dimensionality is not confirmed. A non-tangible and tangible structure exists in Greekinsurance industry. It also found that tangible dimensions do not affect customer satisfaction, while word-of-mouth (intangible dimension) is an antecedent of customer repurchasing intentions and customer satisfaction does not directly influence customer loyalty. Tsoukatos and Rand (2007) examined the effect of culture on service quality and customer satisfaction. The researchers used extending GIQUAL, an instrument developed for measuring service quality in Greek insurance, to measure the culture of individuals. They also developed and tested hypotheses on all 25 possible relationships between the dimensions of culture and service quality. The relationships between the dimensions of service quality and customer satisfaction, in the light of culture, are also examined in this study. Results show that out of 25 hypothesized relationships between the dimensions of culture and service quality, 23 are confirmed and the remaining two are directionally supported. The hypothesized importance of the service quality dimensions is also confirmed. However, the expected association between the importance of quality dimensions and the strength of their relationships with customer satisfaction is only directionally supported.

Chawla and Singh (2008) conducted a study to identify the service quality factors affecting the customer satisfaction levels of the policyholders. The study was based on responses of 210 policyholders from Northern India. Various statistical tests, like reliability analysis and factor analysis, were carried out to test the data that was collected through survey method. The findings reveal that the accessibility factor has a higher mean satisfaction as compared to reliability and assurance factors. A comparison of overall mean satisfaction based on various factors extracted, shows that respondents who had purchased insurance policies before privatization, had a higher mean score as compared to the respondents who took insurance policies after privatization.

Yusuf (2010) examined how insurance brokers control opportunism at the post- contractual stage of insurance contract in the Nigerian insurance market by conducting semi-structured interviews with insurance broking executives. The researcher also analyzed the process by which the insurance brokers gather and pass on information between clients and insurers to control opportunism in the insurance market. The findings suggest that the involvement of the insurance brokers from the claim notification stage, claim auditing to actual settlement and dispute mediation stage are instances of control over customers' opportunistic tendencies. Also, the study found that fear of reputation damage and brokers' professional way of handling clients' overexaggeration and suspicious claiming might considerably control insurance opportunism.

Pandikumar et al. (2011) in their study argued that the success of life insurance industry not only relies on the successful features of its products, but also on the astounding role of agents who take immense efforts towards solicitation of insurance business from public. They said that LIC is a pioneer in the industry with more than 11 lakh agential force. It is required to reckon the impulses of agents, irrespective of their nature, in taking the products to various groups of policyholders. The researchers also found that understanding and grooming of the agents' play a pivotal role not only in withstanding the competition from the private players, but also in retaining quality sales force in order to earn a constant premium income.

## REVIEW OF PREVIOUS STUDIES

## National level

| Researcher | Year | Topic | Publish | Description |
|---|---|---|---|---|
| Khan, M.K. | 1978 | "Prospects of a Career in Life Insurance Business in India - An Analysis" | Indian Journal of Marketing, Volume 7, No. 6, Feb 1978, P. 23-31 | To know the opportunities and prospects in the career of a life insurance sector. He explains about what a good career is and how a good career should be for selling of life insurance products. There is no age barrier and it requires no previous occupational experience but one must be a professional and capable of creating opportunities in building personality. The relationship of life Insurance agent with clients is not temporary and the service rendered has no substitutes. He also observes that life insurance agent remains, in a sense, permanent server to the clients. |
| Marks.S Dorfman | 1982 | "Introduction to Insurance" | Prentice Hall, Insurance N.J. Second Edition, 1982 | Explain the fundamentals of insurance and various form of insurance such as life, fire, marine, all basic aspects of life insurance are discussed in detailed manner. |
| Hubner S.S. and Kenneth Black Jr. | 1982 | "Life Insurance" | Prentice Hall, Insurance N.J. Tenth Edition 1982 | Mathematics of pricing of various products organizational and marketing aspects of insurance companies is discussed at length. |
| Seetarmaiah | 1982 | "Fluctuations in new business" | Yogakshema, December 1982 | Identifies the reasons for heavy concentration of new business of the year ending months. He suggested some steps to control the heavy rush in |

| | | | | |
|---|---|---|---|---|
| | | | | the year ending. |
| Parasuraman, A., Zeithaml, V.A. and Berry, L.L. | 1985 | A conceptual model of service quality and its implications for further research" | Journal of Marketing, Vol.48, Fall, pp.41-50. | Five dimensions: Reliability-ability to perform the promised service dependably and accurately, Responsiveness-willingness to help customers and provide prompt service, Assurance-ability to inspire trust and confidence, Empathy-the caring, individualized attention provided to customers and Tangibles. |
| Rajkumar | 1985 | "The Role of Insurance Advertising" | Indian Journal of Marketing, Vol. 15, No.2, July 1985, P. 21-23. | Advertising is to influence a customer, who has a limited spending power and it seems to operate through familiarizing spreading news over cog inertia and image building improving market share, educating, informative and to have staff support. As far as insurance industry is concerned, misconception is a common problem and the pre-testing revealed that most of the rich people are associated with insurance and he viewed that the treatment of Life Insurance Company to the public is always unfair. |
| Sesha Ayyar V. | 1986 | "Product Development" | Yogakshema July 1986, Page 16 | Discuss financial convergence and regulation in insurance, in his journal suggested there is no legislative framework for considering the complex nature of the working of financial conglomerates. So the new framework should be developed to monitor the act new products and various problems involved in the development of product in LIC. He recommends the need for including ancillary benefits in the polices such as accident benefit, disablement benefits and hospitalization benefits. |
| Shesha Ayyar, V | 1986 | "Product Development" | Yogakshema, July 1986, P. 16 | discussed various issues connected with developing new polices such as the importance of developing new schemes and various problems involved in the development of new schemes in Company. He suggested the need for including ancillary benefits such as accident benefits, disablement and hospitalization benefits. |
| Rajan Saxena, | 1986 | "Marketing of Life Insurance Services" | Yogakshema, December 1986, P.15. | Discusses various issues relating to life insurance. The author insists on the importance of life insurance and discusses on various strategies of life insurance |
| Mishra, M.N. | 1987 | "Appraisal of Marketing Strategies of the Life Insurance Corporation of India" | Indian Journal of Marketing, Vol. Xvii, No. 6, Feb 1987, P. 25-31. | To appraise the strategies of Life Insurance Company. While reviewing the strategies, the author felt that before 1960 Life Insurance Company did not give much attention to the objective of customer satisfaction, but from 1980 onwards the corporation has taken several remedial measures to provide better customer service and improve the customer satisfaction |
| Ashis Deb | 1987 | "We Care for | Yogakshem | Examined the nature and importance of better |

| | | | | |
|---|---|---|---|---|
| Roy | | our Customers” | a, April 1987, P. 4. | customer services to policyholders and has emphasized the need for quality in service. He has given a detailed note on the various steps to be taken by Life Insurance Company to improve the customer service such as training programmes conducted by Company to its agents and employees, opening new branches and introduction of computers in insurance branch offices. |
| Venkatesh, N.C., | 1987 | “On the Trail Of Better Service” | Yogakshema, November 1987, P. 28. | Has discussed the importance of better and personal servicing to the customers and has emphasized the importance of satisfying the policyholders. |
| Parasuraman, A., Zeithaml, V.A. and Berry, L.L. | 1988 | “multiple-item scale for measuring consumer Perceptions of service quality” | Journal of Retailing, Vol. 64 No. 1, pp.12-40 | showed that service quality could be measured as the discrepancy between perceived and expected service through five dimensions: |
| Rao, B.S.R. and Appa Rao Machiraju | 1988 | “Life Insurance and Emerging Trends in Financial Services Market” | Yogakshema, 1988, P. 25 | The agents of life insurance should improve their services to the level of financial experts. The authors felt that the change in the economic scenario would help the corporation in better services field. |
| Raghunadhan, R., | 1988 | “Population – Insurable and Insured” | Yogakshema, Feb. 1988, P. 15 | Attempt to analyze the insurance coverage of the insurable population and concluded that more self employed and agricultural labourers are to be tapped. The author gave a suggestion to improve and introduce new schemes to satisfy the groups |
| Patki, V.V., | 1988 | “Rural Marketing” | Yogakshema, May 1988, P. 38. | Discussed the problems of selling the life insurance in the rural areas and gave many suggestions to penetrate into the rural market. The suggestions are participation in village fairs, using audiovisual methods and explaining the merits of the life insurance to the villagers etc. |
| Shejwalker, P.C. | 1989 | “Training in Life Insurance Marketing” | Yogakshema, August 1989, P. 27 | Discussed the importance of trained agent force to develop the life insurance business. He stressed that present selection pattern of the agent should be changed. He expressed his opinion that private or independent institute should be invited to impart training to the agents. |
| Krirubashni, B. | 1991 | “Life Insurance Policy Holdings-A Study on Influencing Factors” | Published Thesis, December 1991. | To know the level of awareness, preference and influencing factor pertaining to policy holdings and to test the relationship between the influencing factors and policy holdings. The study reveals that the majority of the respondents aware of the endowment assurance policy and considered to rank it as number one. The study also revealed that there was a significant |

| | | | | |
|---|---|---|---|---|
| | | | | relationship between personal factors and policy holdings. |
| Seetaramaiah, M. | 1992 | “Fluctuations in New Business” | Yogakshema, December 1992, P. 24 | Identified the reasons for heavy work load on new business during the year ending period. He suggested some steps to overcome them. They are closing the half yearly accounts in September, giving heavy discount for the premium received in the first quarter, giving a special rebate of premium in the lean months, and completing the promotion and posting of officials by the first week of April. |
| Bitner, Booms and Mohr | 1994 | Critical Service Encounters: The Employee Viewpoint | Journal of Marketing, p. 97 | Defined service quality as ‘the consumer’s overall impression of the relative inferiority / superiority of the organization and its service’. Therefore, service quality is key of survival of all servicing companies. |
| Hofested, G., | 1995 | Insurance as a product of national value | Geneva papers risk insurance, 20:423-429 | The major function of life insurance is to protect against financial loss from loss of human life. Besides covering the risk of death, it coverts the risks of disability, critical illness and superannuation. Life insurance is therefore developed as economic component of human life. Any event affecting an individual’s earning capacity has an impact on the individual’s human life value. This event may be premature death, incapacity, retirement or unemployment. |
| Appi Reddy and Narasimha Murthy, G. | 1996 | “Marketing of Life Insurance Services in Rural Areas” | Management Researcher, Vol. 11, No 3 & 4, Jan-Jun 1996, P. 23-28. | Attempted to examine true marketing practices followed by Life Insurance Company in rural areas and problems involved in providing the services. The organization appoints development officers with responsibility in a specified territory (Trust with Trust) and special promotional efforts like field publicity vans, film shows, exhibitions etc are insisted. The study found that only 4.55 crores people have been insured against the insurable population of 21 crores, in spite of consistent efforts. |
| Gidwani, S.J. | 1996 | “How Much Life Insurance does a Man Need” | Chartered Secretary, Jan 1996, P.31-32 | To find probable solution as to why human life is valued after death in monetary terms and to what extent the life insurance is needed for an individual. |
| Narasima Murthy, G. | 1996 | “Customer Services in Life Insurance Company - A Case Study” | Indian Journal of Marketing, Vol. 25, No. 23, Feb-Mar 1996, P.18-22 | To examine and evaluate the customer service provided by company at Hanamkonda branch in Andhra Pradesh. The findings of the study was that majority of the policyholders are satisfied with premium rates fixed by Life Insurance Company and remaining felt that rates should be reviewed in view of declining |

| | | | | |
|---|---|---|---|---|
| | | | | mortality rate. Majority of the respondents expressed satisfaction with service of agents at the time of maturity. |
| Malhotra, R.N., | 1996 | "Liberalizing Indian Insurance Industry" | Chartered Secretary, Jan 1996, P. 1-11 | A committee on reforms in the insurance sector was formed to discuss on the media's insurance sector - According to his survey, the awareness level of various policies of both General and Life Insurance Company is quite limited. He is also of the view that a fair proportion of people are of the opinion that peerless companies are offering only general insurance. |
| Modawat, S.L. | 1997 | "Two Decades of Life Insurance - A Study in Policyholders Wears and Woes" | Indian Journal of Commerce, Vol. XXX, Part III, No. 112, September 1997, P. 9-11. | Studies the change that had taken place between two decades in life insurance with particular reference to policyholders' weal and loops. The twin objective at the time of inception was to provide protection to all the section of society and to make available the investment in priority sectors. The study revealed no spectacular increase in business from rural areas but all efforts were made to exploit the vast and untapped potential from rural business. |
| Shekar Chandra | 1998 | "Future Strategies for Life Insurance" | The Indian Journal, December 1998, P.81. | Discussed various issues relating to life Insurance. He has given a detailed note about new kinds of products and intimacy with the constant technology adoption for survival as well as for consistent growth. |
| Pamela L. Alreck and Robert B. Settle | 1999 | "Strategies for Building Consumer Brand Preference" | Journal of Product and Brand Management", P. 130-144. | the central objective of the marketer's is not simply to have a relationship with buyer but also to build the relationship with buyer in the form of linking the brand to a particular need, associating it with a pleasant mood, appealing to sub conscious motives: conditioning buyers to prefer the brand through reward; penetrating perceptual and cognitive barriers to create preferences and providing attractive models for buyers. |
| Ajit Ranode and Rajeev Abuja | 1999 | "Life Insurance in India - Emerging Issues" | Economic and Political Weekly, Jan 1999, P. 16-23. | Present an overview of the operation of Life Insurance Company in India and identify the strategic issues in liberalization and the entry of private players in insurance. The author brings out the need of private players, enhances efficiently in operation, achieving a greater density and penetration of life Insurance, mobilize long term savings for infrastructure and to bring freedom in investment in order to survive and adapt to the liberalized scenario. |
| Raghu Gulati | 1999 | "Study of Life Insurance Market: | (GE Capital, India), 1999 | To observe the Life insurance market in relation to products and customers. A basic understanding of life insurance business, product portfolio, strategy |

| | | | | |
|---|---|---|---|---|
| | | Products and Customers” | | the company adopts, demographic analysis, the customer strategy that the organization repeatedly follows when launching insurance etc. is studied. The study also reveals that the company has deep penetration in urban areas, but the people are under insured, yet there exist potential to increase the coverage of insurance. |
| Vijayavani, J. | 1999 | “Cost Effective Distribution Channels of Life Insurance Products” | The Indian Journal, December 1998, P.81. | The various methods to improve the channels of distribution. The concept of floating rebate schemes to the customer not only spreads insurance coverage but also attracts extra customer. She suggested health insurance products for different segments. She further suggested that free offer schemes should be introduced to the customers to improve business |
| Lajput Ray Chandhani | 1999 | “Keyman Insurance" | Indian Management, Vol. 35, No.10, October 1999 | Study the monetary value of key man’s life, maximum Sum Assured and other requirements. Though introduced five years back in India, it is yet to gain prominence in the field of life insurance. He viewed that key man insurance holds good to mitigate the losses that might materiality affect the organizations profit, reduce sales, increase cost, restrict credit etc and that might be caused by key employees whose skill and knowledge is more valuable to the organization and remains almost indispensable. |
| Vinay Verma | 1999 | “Retailing Personal Covers” | The Indian Journal, July-December 1999, P. 63 | He suggested that health insurance products for different segments. As the need of the target groups should be developed. He also suggested that free offer schemes should be introduced to the customers to improve business. |
| Mishra K.C & Simita Mishra | 2000 | “Global Insurance Market structure” | The Management Accounts Vol. 35 No.1 Jan 2000 pp 51-54. | Brings the position of insurance compared with European countries, where life insurance accounts for 58% of global direct premium and non-life 42% during the year 1997. The study states that the need for insurance arises when economic activity increases, family becomes nuclear, kins gets geographically dispersed and individual become more dependent on employment. The author analyses the to ten largest insurance markets and how they are ranked by revenue in the year 1998. |
| Jaya Basu and Chandra Sekhar | 2000 | “Insuring the Profits” | ICFAI, Reader, September 2000, P.55-57 | Discuss the problem faced by the insurance players towards majority of population being ignorant of the policies. |
| Ramakrishna Reddy and | 2000 | “Life Insurance Corporation of India: Need for | Prestige Journal of Managemen | to study the importance of information technology in the insurance industry and brings out the efficient need of providing improved services |

| | | | | |
|---|---|---|---|---|
| Raghunadha Reddy | | New Lessons" | t and Research, Vol. 4, No.2, October 2000, P.206-214. | when there is completion due to private entry. In an insurance company the service of it may be utilized in many a life expectancy or the policy designed only for government employees or semi - government employees or reputed commercial firms etc. |
| Malliga, R. | 2000 | "Marketing of LIC Policies - A Study on Agents of Tirunelveli Division" | Indian Journal of Marketing, Vol. XXX, No. 8-10, August-October 2000, P. 6-9 | There is a significant correlation between the marketing strategies of the agents and their performance. |
| Achamma Samuel | 2000 | "Insurance: The Indian Experience" | RBI, Occasional Papers, Vol. 21, No.2, 3, Monsoon and Winter 2000, P.349-373. | Made an attempt to make an overview of the insurance system in India. As the insurance sector facilitates for economic development, the author tries to evaluate the insurance penetration and makes a comparison with the world standards. |
| Vijay Srinivas | 2000 | "How Returns Linked Insurance Products can be Popularized" | The Indian Journal, July- Dec 2000, P. 67 | Emphasized that the insurers should link insurance products with other benefits. Low incomes, social structure, lack of understanding among the public, lack of availability of new schemes are the main reasons for low productivity for insurance in India. |
| Kotler, P. | 2000 | Marketing Management, Tenth Edition | Saddle River, NJ: Prentice Hall, 2000 | A company practicing market segmentation realizes that buyers differ in their needs and wants, purchasing behaviour, demographic characteristics, product service usage patterns, geographic locations, buying habits and other characteristics. |
| Mishra and Simita Mishra | 2000 | "Global Insurance Market Structure" | The Management Accountant, Vol. 35, No.1, Jan 2000, P. 51-54. | Brings the position of insurance compared with European countries, where life insurance accounts for 58% of global direct premium and non-life 42% during the year 1997. The study states that the need for insurance arises when economic activity increases, direct premium and non-life 42% during the year 1997. The study states that the need for insurance arises when economic activity increases, family becomes nuclear and individual become more dependent on employment. |
| Anabil Bhattacharya | 2000 | "Indian Banks-Entry into Insurance Sector" | The Indian Journal, July-Dec 2000 | Has stated that the banking industry is perpetrating into the insurance industry. He suggested that the eligibility criteria might be relaxed |

| | | | | |
|---|---|---|---|---|
| Michael Theil | 2001 | “Demographic Variables and the Appraisal of insurance: The case of Assistance products” | Journal of Risk Managemen t & insurance Vol.6 2001 PP16-25 | Analyses the demographic variables and the appraisal of insurance with a case analysis, pertaining to assistance products. Additional features to traditional products are new survey is different and there is a weak relationship between consumer’sclass of insurance products. The study reveals that variable used in thereferred to as assistance products. A consumer survey was conducted to find the demographic characteristics and the related assistance products. It also analysis the consumers’ judgement towards judgement and class of products as demographic variables are not performing as expected, it seems advisable to focus on alternate factors. |
| Vasanthi Srinivasan , Prakash & Sithramu | 2001 | “Selection of Life Agents: a Challenge for the Indian insurance Industry” | Journal of Risk Managemen t & Insurance, Vol.6, 2001 Edition, PP.77-89. | Explore the changes taking place in management of agents in liberalized economy. The objectives of the study were to identify the competencies required and methodology adopted for selecting the effective agents. A sample of 15 agents ranging between 28-47 years, representative, and customers of agents was taken for qualitative solution. The findings indicated that a professional competency is necessary for successful insurance agents. The study also highlights the analysis of industry, how to manage agents to develop competencies and domain experts in the selection of agents. |
| Agarwal R.F. | 2001 | “Role information technology in the insurance Industry” | charted secretary Aug 2001 pp 235-237 | to study the importance of information technology in the insurance industry and brings out the efficient need of providing improved services when there is completion due to private entry. In an insurance company the service of it may be utilized in many areas like customer service, claim management, human resources etc. it is assumed that to have an overall increase in the size of the insurance market, information technology must be used on a much vigorous basis for more extensive penetration. |
| Agarwal, R.F | 2001 | “Role of Information Technology in the Insurance Industry” | Chartered Secretary, Aug 2001, P. 235-237. | to study the importance of information technology in the insurance industry and brings out the efficient need of providing improved services when there is completion due to private entry. In an insurance company the service of it may be utilized in many a improved services when there is competition due to private entry. In an insurance company, the service of it may be utilized in many areas like customer service, claim management, human resources etc. It is assumed that to have an overall increase in the size of the insurance market, information technology must be used on a much vigorous basis for more extensive |

| | | | | |
|---|---|---|---|---|
| | | | | penetration. |
| Paresh Parasnis | 2001 | "Distribution of Life Insurance - An Industry in Transition" | Chartered Secretary, Aug 2001, P. 232-234. | Various channels of distribution in the life insurance industry in India and new avenue cues being explored by the new player. The greater importance is given to the customer not only for meeting his requirements but also the impact in times of fulfillment, quality of service rendered, complexity of products etc is given priority. |
| Nikhil Gupta | 2001 | "Responsible Reassurance" | September 2001, P. 27-33 | Views that among the strategies that Indian insurers adopt, best opportunity lies in the product's core function that is in providing a safety net. Though insurance is pooling of resources to help a few in distress, it certainly requires retaining the notion of responsibility. |
| Swapan Bakshi | 2001 | "Banks Focus into Insurance - Prospects and Problems" | Journal of Indian Institute of Bankers, Vol. 72, Oct-Dec 2001, P. 41-46 | To focus issues on the potential growth in insurance business and the infrastructure for banks to adopt the strategies for success in a competitive environment while opportunities are immense and the challenges are also formidable, the prospects and problems for banks planning to foray into insurance is well discussed. Entry of private players may erode the deposit base of banks, since life insurance advantage, flexibility and gestation period. The potential threat to deposits may be the factors considered for banks to go for both life and nonlife sector |
| Vasanthi Srinivasan, Prakash and Sithramu | 2001 | "Management of Agents in Liberalized Economy" | Journal of Risk Management and Insurance | Explore the changes taking place in management of agents in liberalized economy. The objectives of the study were to identify the competencies required and methodology adopted for selecting the effective agents. |
| Michael Theil | 2001 | "Demographic Variable and the Appraisal of Insurance: The Case of Assistance Products" | Journal of Risk Management and Insurance, Vol. 6, 2001, P. 16-25 | Analyses the demographic variables and the appraisal of insurance with a case analysis, pertaining to assistance products. Additional features to traditional products are new survey is different and there is a weak relationship between consumer'sclass of features to traditional products are referred to as assistance products |
| Kishore, R.B. | 2001 | "A Holistic View of Insurance Reforms and a Blue Print for Strengthening LIC" | The Indian Journal, Jan-June 2001, P. 35 | Stated that there is an enormous scope for a big breakthrough and an accelerated growth with keen healthy competition. He forecast that the Industry would generate 8 to 10 lakhs jobs in the next 5 to 7 years. |
| Pradeep Gupt and Sanjay | 2002 | "Insurance sector; challenges and | JIMS 8M Oct- Dec. 2002, | Discussed the challenges and strategies in the insurance industry in India. An attempt was made to know the market position of different insurance |

| | | | | |
|---|---|---|---|---|
| Bhyana, | | strategies" | PP.40-44 | brands and business practice codes given by IRDA to maintain some minimum standard. As per study, after liberalization in Nov, 1999, awareness of LIC brand shows 100% as against ICICI prudential awareness 70%, followed by HDFC, with 52%. |
| Rajat Shuvro Bakshi | 2002 | "Strategies for Indian Insurance Companies-Post Liberalization Vision" | Journal of Business Perspective, July-Dec. 2002, P. 41-52 | attempts to know the theoretical concepts and examines the post liberalization Scenario in the existence of Insurance Regulatory and Development Authority and the strategies for the future must be based on customers, as the customers are the major driving force for the private players and is not easy to achieve especially when insurers are preparing themselves up for a competition. |
| Arunajatesan | 2002 | "Insurance in India and Future Prospects" | Management Matter, Sept.2002, P-53-55 | to find the reason for poor penetration of insurance and influencing factors like awareness of Life Insurance Products, preferred mode of saving, insurable population, reasons for buying etc. |
| Ashok Thampy and Sitharama, S. | 2002 | "Life Insurance Potential in India-An Economic Approach" | Vision: The Journal of Business Perspective, July-Dec. 2002, P.11-18 | The study shows that the rural sector offers huge business opportunity and out of 124 million rural house hold, 27% already possess life policy and 51% of the respondents express to purchase a policy. This ensures that the insurance industry will grow in future. |
| Bajpal, G.N. | 2002 | "The Challenges before the Insurance Industry in India" | Published by the A.D. Shroff Memorial Trust, Mumbai 2002 | Brings out the environmental changes like liberalization and globalization, increasing disasters, declining interest rate, convergence, discriminating customer expectation that brings challenges before the insurance industry. |
| Thiripurasundari, K. | 2002 | "Attitude of Policyholders towards LIC" | Kisan World, Vol. 29, No. 5 May 2002, P. 21 | to know the attitude of Policyholders towards the Services of Life Insurance Company branch office at Mayiladuthurai Town in Tamil Nadu and the Level of Satisfaction of Policyholders relating to the rate of bonus, rate of premium, and medical examination etc. |
| Pushpa Kumari | 2002 | "LIC of India: A Catalyst to Development" | Journal of Business Perspective, July-Dec. 2002, P. 41-52 | To find out how LIC provides security to the masses and its contribution to the development of the economy. As per the annual report, number of policies in individual assurance increased more than 13 times |
| Mittal and Anil Chandnok | 2002 | "Privatization of Life Insurance Sector in India- | Indian Journal of Marketing, Vol. XXXII, | To study the impact and perspective of insurance sector before and after privatization. In the pre-scenario privatization, 75% of the business was generated in the months of January, February and |

| | | | | |
|---|---|---|---|---|
| | | Impact and Perspective” | No. 11, Nov 2002, P. 5-7 | March of every year for income-tax saving, while the remaining 25% - of the business was procured in the remaining nine months. |
| Pradeep Gupta and Sanjay Bhyana | 2002 | “Insurance Sector: Challenges and Strategies” | JIMS 8 M Oct-Dec 2002, P 40-44 | Discuss the challenges and strategies in the insurance industry in India. An attempt was made to know the market position of different insurance brands and business practices codes given by IRDA to maintain some minimum standard |
| Shaoo, S.D. | 2002 | “Rebating In Insurance” | The Indian Journal, Jan-June, 2002, P. 32 | Gave suggestions to overcome the problem of rebating. LIC is paying 35% as first year commission to its agents. It can be spread over subsequent years. If a Policyholder fails or subsequently defaults in premium payment, the commission paid to the agents should be recovered. To implement this, IRDA has to make amendment in the IRDA Act. |
| Rudra Saibaba | 2002 | “Perception and Attitude of Women towards Life Insurance Policy” | Journal of Marketing, Vol. XXX1, Oct. 2002, P.10 | According to him, 75% of women perceived that life insurance plans provided coverage against future risk, 58% of women felt that insurance provided accidental coverage, nearly 41% of women considered insurance beneficial for availing housing loans, 70% of the respondents are satisfied with the services offered by the corporation. 58.75% of the women knew about the different types of polices available with the corporation. 41% of the respondents have not taken any new polices. |
| Mittal, R.K. | 2002 | “Privatisation of Life Insurance Sector in India – Impact and Perspective” | Indian Journal of Marketing, Vol. XXXII, November 2002, P.5 | Stated that 10 per cent of the agents procured 90 percent of the business and remaining 90 per cent of the agents procured the remaining 10 per cent of the business. If the awareness towards insurance is ignited vigorously the untapped potential business can be translated into actual business. |
| Pramod Pathak and Saumya singh | 2003 | “Increasing competitivenes s through Marketing – A case study of Life insurance corporation of India” | The alternative journal Vol.2 No.1 Oct 02 to March 03, pp 32-38 | Find out the competitiveness of LIC in view of entry of new players and carried out as SWOT analysis to suggest some strategies. The objective of the study was to help the public sector insurance giant to increase the market share, to help LIC to retain old customers, and to attract new customers. |

| | | | | |
|---|---|---|---|---|
| Aloke Tewary | 2003 | "Insurance - The latest Buzzword in the Indian Economy" | Banking Finance Jan 2003 pp 10-12 | Skills and experience is necessary to tap the employment opportunities arising from the liberalization of insurance sector. He brings out the difference between pure risk and speculative risk, where pure risk can be overcome only through the techniques of risk management. Insurance business needs lot of capital, skill and talent to manage the marketing treasury operations, administration and vigilance. He discusses on the eligibility criteria for banks to enter into insurance business, the capital adequacy ratio of the bank should not be less that 10% and NDA levels of the bank should be reasonable etc |
| Hendel, Igal, Alessandro Lizzeri | 2003 | "The role of commitment in dynamic contracts: evidence from life insurance" | the Quarterly Journal of Economics, Feb. 2003, 299-327 | study the properties of long -term contracts in the framework of a dynamic model with symmetric learning and one -sided commitment and find empirical support for the predictions of the model using data from the life insurance market. |
| Azhagaiah and Varadharajan, R. | 2003 | "Paradigm Shift in Insurance Business" | Facts for You, Sept 2003, P.15-17. | Study view that out of one billion people in India; only 35 million people are covered by insurance. With the entry of Private insurance Players, people have a host of schemes to choose with distinguished features, giving importance to the return on investment. Life Insurance Company has been withdrawing many of its assured return plans, due to the factors like changing customer behavior, deregulation and government intervention, competition etc. The ICICI prudential tops the rank with 40% progress followed by Max New York with 13% progress in the insurance business of India. |
| Patil Kallinath, S. | 2003 | "Life Insurance Corporation of India, Its Products and their Performance Evaluation" | Finance India, Vol. 17, 2003, P.1037-1040. | To evaluate the duties of agents and to assess whether the existing products are satisfying the needs of the policyholders in Life Insurance Company branches of Gulbarga district. It is found that in the branches rapport between the agents and development officer is not customary and majority of the respondents are dissatisfied with the kind of services rendered by the officials. |
| Ravi Prakash, S., Satyanarayana Chary, T., Shyam | 2003 | "Globalisation - Its Impact on Insurance Industry" | Indian Journal of Marketing, Dec. 2003, P.5. | Revealed that the size of the existing insurance market is very large. It is also growing at the rate of 10% per year. The estimated potentiality of the Indian insurance market in terms of premium is around $80 billion in 1999 only |

| | | | | |
|---|---|---|---|---|
| Sunder, C. | | | | |
| Santosh Dhar and Upinder | 2003 | "Dimensions of Insurance: A Perceptual Study of Future Managers" | Journal of Risk Management and Insurance, Vol. 8, 2003. | The study for the purpose of assessing the awareness and understanding of future managers about insurance. The study has revealed that five dimensions (Protects current and future needs, encourages savings, guarantees payment, ensures growth and security) are perceived as important by these future insurance managers. |
| Kaliyamoorthy and Suresh | 2003 | "Emerging Paradigms in the Insurance Sector" | JIMS 8 M, July-Sept 2003, P. 29-34. | Study the changes in the key factors like demographic, social, economic, political factors and strategic choices that are responsible for the growth of the service sector comparison of insurance contribution in the developed and developing countries. It clearly state the terms of saving mobilization. |
| Punithavathi Pandian and Malliga, R. | 2003 | "Impact of Liberalization on the Marketing Performance by LIC" | Indian Journal of Marketing, Oct' 2003 | Impact of liberalization on the marketing performance by Life Insurance Company stressed that the marketing performance of the Life Insurance Company has increased over the last few years. The products are sold in abundance and still insurance penetration towards the mass has to be increased enormously over the forthcoming years. |
| Agarwal, V.K. | 2004 | "Insured Expectations in Liberalised Insurance Market" | Chartered Secretary, Aug 2004, P. 238-240 | Article briefly discusses the various channels of distribution and new avenue being explored by the new players in the insurance sector. He states that a customer may have expectations like value added services, development of new products, technology insurance, solvency, financial security, quality trained staff etc. |
| Ravi Shanker | 2004 | "Marketing of Insurance Services" | Service Marketing, The Indian Perspective, P.275-287 | Attempts to know the objectives namely the reform adopted by Life Insurance Company after Nationalization, its impact, influencing factors in competition and marketing strategies adopted by the insurance companies. The findings of the study are as per the reforms, the direct insurers to have a Minimum paid up capital of Rs.1 billion invest from policyholders' funds only in India and to restrict international companies to a Minority equity holding of 26% in any new company. |
| Devashish Pujari and Anand Sharma | 2004 | "Marketing Application in Insurance Services" | Marketing of Services, P. 184-197 | Study formulates certain objectives to elucidate the importance and application of marketing concepts in the services offered by insurance companies, and suggests measures to strengthen customer satisfaction. The study is primarily based on the observation and unstructured interviews with the executives at regional office and branch office of insurance companies The main source of information is through advertisement and information lying in the branch, |

| | | | | |
|---|---|---|---|---|
| | | | | divisional and regional office. |
| Shobit and Sanjay Shukla | 2004 | "An Empirical Study and Analysis of Failure of Private Insurance Players in Rural Areas" | Insurance Chronicle, May 2004, P. 56-62 | Conduct a survey in Lucknow city as well as its adjoining rural areas to understand the present scenario of private insurance players. The study also revealed that in urban areas, efficient customers' services and services provided at doorstep are the two major reasons for market penetration in the private insurance sectors. |
| Raman, N. and Gayathri, C | 2004 | "A Study on Customers Awareness towards New Insurance Companies" | Indian Journal of Marketing, 2004, Vol. 34, P. 6-8 | Observed the customers awareness towards new insurance companies. They found that 53% of the respondents belong to the age group below 30, 24% to the age group 31-40, 2% belong to the group of 41-50 and the rest of the respondents belong to the group of 'above 50'. They also observed that a large percentage of the insured respondents (32%) are professional, and 56% of the respondents are married. It is also found that 52% of the respondents have taken a policy to cover risk and 44% of them to avoid tax and the remaining to invest their surplus amount. |
| Chiappori, Pierre-Andre, Bruno Jullien, Bernard Salanié and Francois Salanié | 2005 | "Asymmetric Information in Insurance: General Testable Implications" | the Rand Journal of Economics | Study revealed that a positive correlation between risk outcome and insurance coverage, conditional on the observables used in pricing. |
| Sharma Ravi Kumar | 2005 | "Insurance Perspective in Eastern UP: An Empirical Study" | Indian Journal of Marketing, 2005, P. 14-20 | The reasons or the factors behind the purchase of the insurance product. It was found that according to 93.86% of the respondents insurance policies are considered indispensable for risk protection |
| Krishan Kumar, S., | 2005 | "LIC Making Inroads into Rural India" | Insurance Chronic, 2005, P. 42-49. | highlights Life Insurance Companies rural penetration, inherent problems in implementation, growth over the years, social schemes over the year, social schemes for the rural poor and the 'Bima gram' Program. The study indicates that nearly 55% of its new, individual policies have come from the rural sector. Its performance stands miles ahead of the private players. But amongst the insurance products available, very few are tailor - made for the rural population. |
| Kumar Jagendra | 2005 | "Innovative Environment in | The Insurance | Study revealed that the life insurance penetration, India is just about 2% of Gross Domestic Product. |

| | | | | |
|---|---|---|---|---|
| | | Renovated Insurance Industry" | Times, 2005, Vol. 25, P. 4. | The life insurance premium per capital is just Rs.550. The Life Insurance Company is the largest player with over 2000 officers. After liberalization, it has improved its efficiency and customer services. |
| Mony, S.V. | 2005 | "New Initiatives in the Insurance Sector: Opportunities and Challenges" | Vikalpa, Vol. 30, No. 3, September 2005. | Help in the penetration of insurance in the rural areas by formulating low cost polices. He also stressed that good customer service and information technology might help insurance companies in the penetration of insurance products into urban areas. |
| Krishnamurthy, S., | 2005 | "Insurance Sector: Challenges of Competition and Future Scenario" | Vikalpa, Vol. 30, No. 3, September 2005. | Entitled insurance sector challenges of competition and future scenario concludes that the limited availability of data on policyholders, the low awareness among policyholders the inadequate infrastructure and technology are the major problems of the insurance industry in marketing its products. |
| Sandeep Bakhshi | 2005 | "Integrated Approach: Key to Growth and Development" | Vikalpa, Vol. 30, No. 3, September 2005. | Stressed that Multi - Product, Multi - Channel and Multi -Segment Routes might help the insurance industry to improve the penetration level in the domestic market. |
| Ramesh Bhat and Dixit, M.R | 2005 | "Exploiting an Opportunity with Partnerships" | Vikalpa, Vol. 30, No. 3, September 2005. | Conclude that banks are the potential partners in distributing the insurance products in the market. |
| Sunil Maheswari | 2005 | "Managing the Agents" | Vikalpa, Vol. 30, No. 3, September 2005. | Pointed out that those quality agents can sell insurance products in the market successfully. |
| Manchanda, S.M. | 2005 | "Importance of the Need to Cover the Death Risk" | Insurance Chronicle, Vol. 5, Issue 10, November 2005. | Concluded that insurance companies should educate their customers on different products, which suit their special needs. |
| Prakasha Rao, B.K.S. and Venkateswara Rao, B.H. | 2005 | "Buoyant Rural Areas" | Insurance Chronicle, Vol. 5, Issue 7, August 2005. | Concluded that the establishment of micro-branches and the appointment of specialized insurance agents in rural areas help the policyholders to market different insurance products. |
| Jack Burke | 2005 | "The Art of Building a Relationship" | Insurance Chronicle, Vol. 5, Issue | Stressed that only post-sales service help in capturing more customers. In India, insurance has not been on the main agenda of either individuals |

| | | | | |
|---|---|---|---|---|
| | | | 11, 12th August 2005. | or corporate. |
| Namasivayam, Ganesan, S. and Rajendran, S. | 2006 | “Socioeconomic Factor Influencing the Decision in taking Life Insurance Policies” | Insurance Chronicle, ICFAI University, 2006, P. 65-70 | Examined the socioeconomic factors that are responsible for purchase of life insurance policies and the preference of the policyholders towards various types of policies of Company. From the analysis, it was found that factors such as age, educational level and sex of the policyholders are insignificant, but income level, occupation and family size are significant factors for the purchase of LIC products. |
| Rajesham, Ch. and Rajendar, K. | 2006 | “Changing Scenario of Indian Insurance Sector” | Indian Journal of Marketing”, July 2006, P. 9 | revealed that insurance companies of India are required to come up with multi-benefit policies including tax benefits with quality based timely customer services and need to focus on health insurance which is one of the untapped areas of insurance including services through innovative products, smart marketing and aggressive distribution with internet facility with much individual attention transparency and flexibility to increase the quality and volume of insurance business. |
| Raman, N. and Gayathri, C. | 2006 | “A Study on Customers Awareness towards New Insurance Companies” | Indian Journal of Marketing”, July 2006, P.6. | Revealed that customers are now looking at insurance as complete financial solutions offering stable returns coupled with total protection. Companies will need to constantly innovate in terms of product development to meet over changing consumer needs. Understanding the customer better will enable insurance companies to design appropriate products, determine price correctly and increase profitability. In the present scenario a key differentiated would be professional customer service in terms of quality of advice on enhancing the customer convenience. |
| R. Vaidyanathan | 2007 | "Financial coverage and Regulation in Insurance” | Insurance theory and practice Vol.3 August2007, PP.15 | Discuss financial convergence and regulation in insurance, in his journal suggested there is no legislative framework for considering the complex nature of the working of financial conglomerates. So the new framework should be developed to monitor the activities in right kind of system. |

| | | | | |
|---|---|---|---|---|
| Dr. Santosh Dhar & Dr. Upinder Dhar | 2007 | “Insurance Industry in India- An insight” | Prestige institute of Management and and Research centre, Indore, Vol.3 August 2007, PP. 17-25. | In the context of global scenario, India cannot remain isolated. It is evident that the existing players need to be geared up to face the competition. The new players will haveto focus on the new and emerging customer requirements. The existingplayers will also have to take care of customer specific issue and requirements.As a matter of fact, custom-based products will have to be designed so as tosuit specific customer needs. New products have to be designed for largecorporate groups. Insurance industry is going to witness a vast change in itsmarketing set up as well as its marketing strategies. The existing and newplayers will have to devise different strategies to retain and enhance theirmarket share. This would be done by bringing in new practice, setting newservices standards and creating new benchmarks. |
| Pillai VNA | 2007 | “Simple approach to life insurance and pension” | February issue of insurance chronicle, ICFAI University Press, Vol. VI, No. 2007. | the business of effecting of contracts of insurance upon human life, including any contract whereby the payment money is assured on death (except death by accident only) or the happening of any contingency dependent on human life, and any contract which is subject to payment of premium for a team dependent on human life and shall be deemed to be. |
| Nagajothi, R.S. and Hasanbanu, S. | 2007 | “A Study of the Insurance Perspective in Uthamapalayam Taluk” | Indian Journal of Marketing, May 2007, P. 10 | Revealed that in India, the insurance has not been on the main agenda of either individuals or corporate. Hence, reforms encompass not merely regulatory intervention but also promotional effort to develop the market. The steady growth of the industry, as also the consolidation of private players progressively bears a silent testimony to the proactive regulatory regime in place in India. |
| Bodla, B.S. and Sushma Rani Verma, | 2007 | “Life Insurance Policies in Rural Area Understanding Buyer Behaviour” | ICFAI University, 2007, P. 18. | revealed that insurance sector plays a very important role in the development of any economy and it provides long-term funds for infrastructure development and at the same time strengthens the risk taking ability |
| Tanmay Acharya, Harshita Mishra and Venkata Seshaia, S. | 2007 | “Customer Preferences in General Insurance Industry in India” | The ICFAI Journal of Marketing, Dec’ 2007, P. 7. | Revealed that the purchasing decision of the consumer depends on quality, accessibility, company type, recommendations and promptness of service. India is poised to experience major changes in its insurance markets as insurers operate in an increasingly deregulated and liberalized environment. For consumers, opening up of the insurance sector will mean new products, better packaging and improved customer |

| | | | | |
|---|---|---|---|---|
| | | | | service. |
| Patil, P.B., Thakkar, P.N. | 2007 | “Impact of Disinvestment on Banking and Insurance Sector” | Indian Journal of Marketing May 2007 | Revealed that a strong competition among the insurance companies has led to better services being provided by customer satisfaction can be known from the customer retention ratio. Now most of the companies are customer centric approach, rather than product centric approach which is leading to customer-retention ratio. |
| Prof. P.C James, | 2008 | “Planning for the Risk Economy Role of the Individual” | Volume VI, No. 3 February 2008 Page No. 10 | Understanding the probabilities of the occurrence of risks leading to loss, it is possible to convert risk situations into catalysts for driving the economic momentum in society. In fact that insurance is public good; regulation, self-regulations and standards normally requires that rates and terms are fair, reasonable and not excessive |
| R. Brent Cooper and Dana Harbin | 2008 | Shareholder in the dallas office of cooper & scully | international risk management institute, Insurance 2008 | There are specific events that must occur to “trigger’ insurance coverage under any given type of insurance policy. The word ‘trigger’ is used in the insurance context as a term of art meaning the event the activates coverage under one or more insurance policies. In his study the trigger of coverage problem arises in determining exactly what should take place within the policy’s effective dates to trigger coverage. |
| Sunayna Khurana | 2008 | “Customer Preferences in Life Insurance Industry in India” | ICFAI University, Journal of Services Marketing, 2008 Vol. 6, No.3. P. 60-6 | Revealed that the insurance sector plays a very important role in the development of any economy. It is necessary for the economic and overall development of any country. In today’s competitive economy, the business, finance and insurance sector plays a very important role. More and more job opportunities are available in these sectors. |
| Keerthi, P. and Vijayalakshmi, R. | 2009 | “A Study on the Expectations and Perceptions of the Services in Private Life Insurance Companies" | SMART Journals, Vol. 5, 2009 | Reveals that the policyholders’ expectations are well met in the case of certain factors reacting to service quality. But in the case of other variables, there exists a significant gap which means that policyholders have experienced low levels of service as against their expectations. If all the players in the Life insurance industry focus on the effective delivery of services, they can win the hearts of customers and anticipate their increased market share. |
| Raju, S. and Gurupandi, M. | 2009 | “Analysis of the Socio Economic Background and Attitude of the Policyholders | Smart Journals of Business Management Studies, Vol. 5, P. 21, | The study was of great help to the policyholders, as it was aimed at finding the attitude towards the services of Life Insurance Company. Hence the prospective customers, who propose to buy the insurance products and avail of the services of an insurance company for the first time, can get benefited by the best service provider. |

| | | | | |
|---|---|---|---|---|
| | | towards Life Insurance Corporation of India” | 2009. | |
| Varaprasad, V. and Murali Krishna, B | 2009 | “Insurance Sector: Strategies for Intermediation and Marketing” | Smart Journal of Business Management Studies. | Revealed that the suggestions brought forward by this study are mixed. The contribution of insurance sector to economic development hardly affects financial intermediation. He concluded that in order to make insurance sector significant component of financial intermediation process, complete deregulation and increase in face of reforms are essential at the same time, by adopting proper segmentation capture significant share in the market for the overall benefit of organizations. |
| Shivanand H. Lengti | 2009 | “Insurance Disputes in India” | ICFAI University, 2009, Vol. 7, P. 83 | Revealed that the insurance consumers have the option to select the appropriate authority and forum. It may be the insurance ombudsman or the consumer councils, to settle their disputes. |
| Praveen Sanu, Gaurav Jaiswal, Vijay Kumar Panday | 2009 | “A Study of Buying Behaviour of Consumers towards LIC” | Prestige Institute of Management, Gwalior, Vol. 3, Issue ¾, P. 1 | Revealed that in present Indian market, the investment habits of Indian consumers are changing very present Indian market, the investment habits of Indian consumers are changing very frequently. The individuals have their own perception towards various types of investment plans. |
| Selvavinayagam, K. and Mathivanan, R. | 2010 | “A Study on Policyholders Preference and Satisfaction of Services Rendered by Selected Life Insurance Companies in Tamilnadu, Namakal District” | International Journal of Marketing and Trade Policy, Vol. 2, No.1-2, (Jan-Dec. 2010): 47-56 | The competitive climate in the Indian insurance market has changed dramatically over the last few years. At the same time, changes have been taking place in the government regulations and technology. The expectations of policyholders are also changing. The existing insurance companies have to introduce many new products in the market, which have competitive advantage over the products of life insurance companies. |

## International level

| RESEARCHER | YEAR | TITLE OF THESIS | PUBLISH | DESCRIPTION |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| George H. Haris | 1944 | “Life Insurance Salesmanship” | Stone and Cox Ltd. Fleet Street London 1944 | Explains that selling life insurance is an art that is acquired by one through experience and exposure but not through teaching. However, the author discusses the requirements of infrastructure such as selling principles. According to him, planning is essential for an agent to succeed in the job of selling insurance. |
| Robort Meliy and Robert W. Osler | 1962 | “Modern Life insurance" | McMillan Company, Toronote 1962 | deal with the principles of life insurance in a detailed manner whereas Walter & Thome discuss the importance aspect to be kept in mind by an insurance company to safe guard the money collected from public. The authors adopt the policyholders point of |
| Anderson J.L and Dow J.B | 1964 | “Actuarial Statistics construction of mortality” | Vol. II, Cambridge University Press, 1964 | deal with the basic for construction of mortality tables. |
| Churchill E. Gug, | 1969 | “Compound Interest simplified” | Pergamon Press Ltd Oxford 1969. | Discusses at length the concepts of presents value and accumulated value he opines that compound interest acts as a bridge between present value and accumulated value. He says that insurance premium that is equal to present value of future claim. It reveals that the period of investment (insurance term) and rate of interest will determine the present value of a future claim or future accumulated value of present payment. |
| Margrot Naylor | 1971 | “The Trust about Life Assurance” | George Dellen and Edwin Ltd. Ruskin house Museum Street, London 1971 | Death is inevitable and hence life insurance is necessary for all. Different types of plans are discussed to analyze their respective benefits from investment as well as tax benefits point of view. |
| Cawley, John and Tomas Philipson | 1999 | “An Empirical Examination of Information Barriers to Trade in | The American Economic Review, Vol.89(4) Sep. 1999, | Provide evidence against the existence of adverse selection using multiple data sources. In particular, using the HRS dataset, they show that both the self-reported mortality and the estimated actual mortality are negatively or neutrally correlated with coverage, after controlling for age, gender, smoking status, marital status, |

| | | | | |
|---|---|---|---|---|
| | | Insurance" | 827-846. | income and wealth and bequest motives. In other words, their results imply that higher-risk individuals are less likely or at least not more likely to have life insurance coverage than the lower-risk individuals. They suggest that a potential explanation for their findings is that individual policyholders may not have better information about their mortality risk than the life insurers after underwriting. |
| Clemon, Hitt and Croson | 2004 | "The future of retail financial services Transpare ncy, bypass and differential pricing" | The Whartom School of Business, 2004 | There are three principal issues i.e. transparency, disintermediation and different pricing that will determine the transformation of retails financial services, including life insurance companies. The author has postulated that financial services industries are giving to be transformed by these three trends. |

# CHAPTER 3
# LIFE INSURANCE INDUSTRY


## 3.1 WHAT IS LIFE INSURANCE


## 3.2 NEED FOR LIFE INSURANCE


## 3.3 ROLE OF LIFE INSURANCE

## 3.4 LIFE INSURANCE INDUSTRY OVERVIEW

## 3.5 CUSTOMER SEGMENT


## 3.6 INDUSTRY POTENTIAL

## 3.1 "WHAT IS LIFE INSURANCE?"


Life Insurance is a contract between you and a life insurance company, which provides your beneficiary with a pre-determined amount in case of your death during the contract term.

Buying insurance is extremely useful if you are the principal earning member in the family. In case of your unfortunate premature demise, your family can remain financially secure because of the life insurance policy that you have purchased.

The primary purpose of life insurance is therefore protection of the family in the event of death. Today, insurance is also seen as a tool to plan effectively for your future years, your retirement, and for your children's future needs. Today, the market offers insurance plans that not just cover your life and but at the same time grow your wealth too.

When you insure your life, in effect what you are doing is insuring your earning capacity that your dependants will be able to continue living without financial hardships even in case of your demise.

Most insurance plans available today come with a savings element built into it. These policies help you plan not only for protection against death but also for a financially independent future, which would enable you to have a comfortable retirement. For example, Kotak Preferred Retirement Plans such as Kotak Retirement Income Plan and Kotak Capital Multiplier Plan.

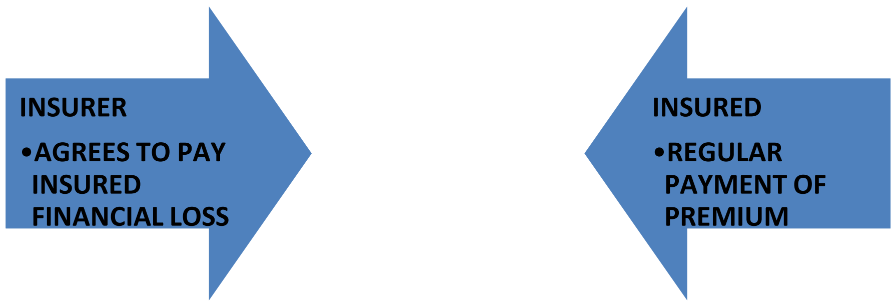
The primary need is buying financial security for your family. Other aspects that insurance you may avail of a loan from the insurance company against certain plans. Your policy could also be pledged as collateral to raise funds from banks and other financial institutions. In case of your unfortunate death the loans may be repaid from the proceeds of the life insurance policy. Savings

PROCESS OF LIFE INSURANCE FUNDING:

On maturity, you will receive the sum assured or the Accumulation Account whichever is higher. Let's understand how this works….

1. Every year you will pay premium on your policy.
2. This premium will get credited to an Accumulation Account.
3. The amount required towards your life cover expenses and any other expense would be deducted from this Account.
4. The balance will be invested in sound financial securities (as per IRDA regulations) on your behalf.
5. The bonuses declared each year by the company would be added to the Accumulation Account. Thus, every year the value in your Accumulation Account will get compounded.
6. At the end of the policy tenure, you would receive the amount in the Accumulation Account or the sum assured, whichever is higher.

## 3.2 NEED FOR LIFE INSURANCE




Risks and uncertainties are part of life's great adventure -- accident, illness, theft, natural disaster - they're all built into the working of the Universe, waiting to happen.

Insurance then is man's answer to the vagaries of life. If you cannot beat man-made and natural calamities, well, at least be prepared for them and their aftermath

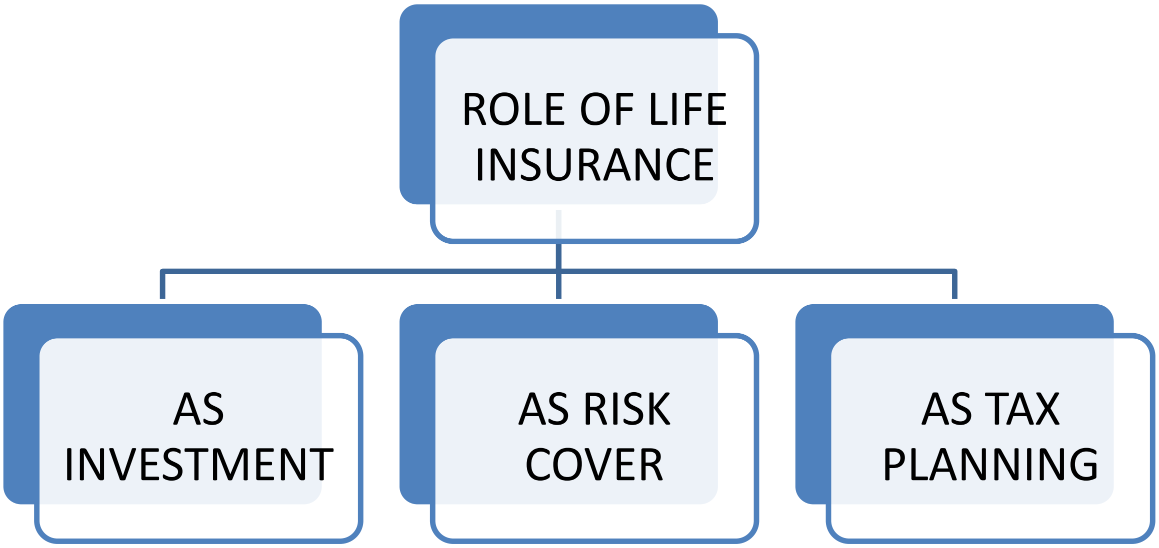
Insurance is a contract between two parties - the insurer (the insurance company) and the insured (the person or entity seeking the cover) - wherein the insurer agrees to pay the insured for financial losses arising out of any unforeseen events in return for a regular payment of "premium".

These unforeseen events are defined as "risk" and that is why insurance is called a risk cover.

Hence, insurance is essentially the means to financially compensate for losses that life throws at people - corporate and otherwise.

In order to calculate the amount of insurance that you require, based on your life stage and life need.

## 3.3 ROLE OF LIFE INSURANCE




***Role 1: Life Insurance as "Investment"***

Insurance is an attractive option for investment. While most people recognize the risk hedging and tax saving potential of insurance, many are not aware of its advantages as an investment option as well. Insurance products yield more compared to regular investment options, and this is besides the added incentives (read bonuses offered) by insurers.
You cannot compare an insurance product with other investment schemes for the simple reason that it offers financial protection from risks, something that is missing that in non-insurance products.

In fact, the premium you pay for an insurance policy is an investment against risk. Thus, before comparing with other schemes, you must accept that a part of the total amount invested in life insurance goes towards providing for the risk cover, while the rest is used for savings.
In life insurance, unlike non-life products, you get maturity benefits on survival at the end of the term. In other words, if you take a life insurance policy for 20 years and survive the term, the amount invested as premium in the policy will come back to you with added returns. In the unfortunate event of death within the tenure of the policy,the family of the deceased will receive the sum assured.
Now, let us compare insurance as an investment options. If you invest Rs 10,000 in PPF, your money grows to Rs 10,950 at 9.5 per cent interest over a year. But in this case, the access to your funds will be limited. One can withdraw 50% of the initial deposit only after 4 years.
The same amount of Rs 10,000 can give you an insurance cover of up to approximately Rs 5-12 lakh (depending upon the plan, age and medical condition of the life insured, etc) and this amount can become immediately available to the nominee of the policyholder on death.

***Role 2: Life Insurance as "Risk Cover"***

First and foremost, insurance is about risk cover and protection - financial protection, to be more precise - to help outlast life's unpredictable losses. Designed to safeguard against losses suffered on account of any unforeseen event, insurance provides you with that unique sense of security that no other form of investment provides. By buying life insurance, you buy peace of mind and are prepared to face any financial demand that would hit the family in case of an untimely demise.

To provide such protection, insurance firms collect contributions from many people who face the same risk. A loss claim is paid out of the total premium collected by the insurance companies, who act as trustees to the monies.

Insurance also provides a safeguard in the case of accidents or a drop in income after retirement. An accident or disability can be devastating, and an insurance policy can lend timely support to the family in such times. It also comes as a great help when you retire, in case no untoward incident happens during the term of the policy

With the entry of private sector players in insurance, you have a wide range of products and services to choose from. Further, many of these can be further customized to fit individual/group specific needs. Considering the amount you have to pay now, it's worth buying some extra sleep.

***Role 3: Life Insurance as "Tax Planning"***

Insurance serves as an excellent tax saving mechanism too. The Government of India has offered tax incentives to life insurance products in order to facilitate the flow of funds into productive assets. Under Section 88 of Income Tax Act 1961, an individual is entitled to a rebate of 20 per cent on the annual premium payable on his/her life and life of his/her children or adult children. The rebate is deductible from tax payable by the individual or a Hindu Undivided Family. This rebate is can be availed upto a maximum of Rs 12,000 on payment of yearly premium of Rs 60,000. By paying Rs 60,000 a year, you can buy anything upwards of Rs 10 lakh in sum assured. (Depending upon the age of the insured and term of the policy) This means that you get a Rs 12,000 tax benefit. The rebate is deductible from the tax payable by an individual or a Hindu Undivided Family

## 3.4 LIFE INSURANCE INDUSTRY OVERVIEW

### 3.4.1 A BRIEF HISTORY OF INSURANCE SECTOR-

The business of life insurance in India in its existing form started in India in the year 1818 with the establishment of the Oriental Life Insurance company in Calcutta.

Some of the important milestones in the Insurance Business in India

| | |
|---|---|
| 1818 | The British introduce Life Insurance to India, with the establishment of the Oriental Life Insurance company in Calcutta |
| 1850 | Non-Life Insurance debuts, with the Triton Insurance Company |
| 1870 | Bombay Mutual life Assurance Society is the first Indian- owned life insurer |
| 1912 | The Indian Life Assurance companies act enacted as the first statute to regulate the life insurance business |
| 1928 | The Indian Insurance Company act enacted to enable the govt to collect the statical information about both life & non life insurance business |
| 1938 | Earlier legislation consolidated and amended to by the insurance act with the objective of protecting the of the insuring public |
| 1956 | 245 Indian and Foreign Insurer and provident societies taken over by the Central government and Nationalized. LIC formed by an act of the parliament, viz. LIC act, 1956 with a capital contribution of Rs. 5 crore from the Government of India. |

Table 2 - Important milestones in the Insurance Business in India

**INDUSTRY GROWTH-**

**Signs of turnaround**

New business premium of top life insurers for the period ended June 30, 2015

| | Apr-Jun '15 (₹ cr) | Apr-Jun '14 (₹ cr) | Diff. in (%) |
|---|---|---|---|
| LIC | 16,428.23 | 14,015.92 | **17.21** |
| HDFC Life | 1,093.94 | 810.4 | **34.99** |
| ICICI Prudential | 1,220.79 | 782.21 | **56.07** |
| Bajaj Allianz | 673.41 | 391.93 | **71.82** |
| Kotak Mahindra | 386.82 | 217.27 | **78.04** |
| SBI | 1,042.66 | 732.81 | **42.28** |
| **Industry total** | **23,568.88** | **19,701.63** | **19.63** |

Figure 1: Business premium of top life insurers

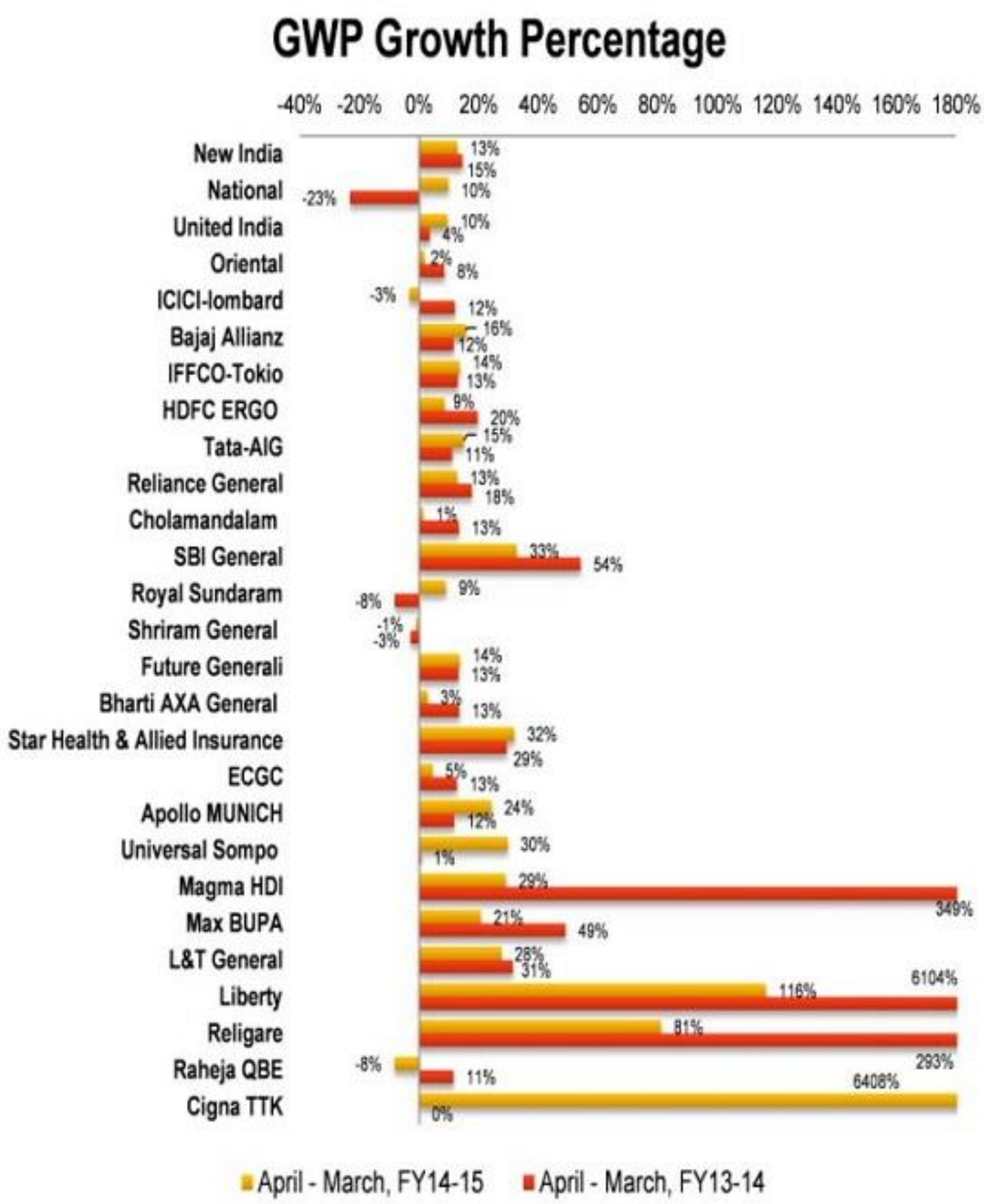



Figure 2: GWP growth percentage

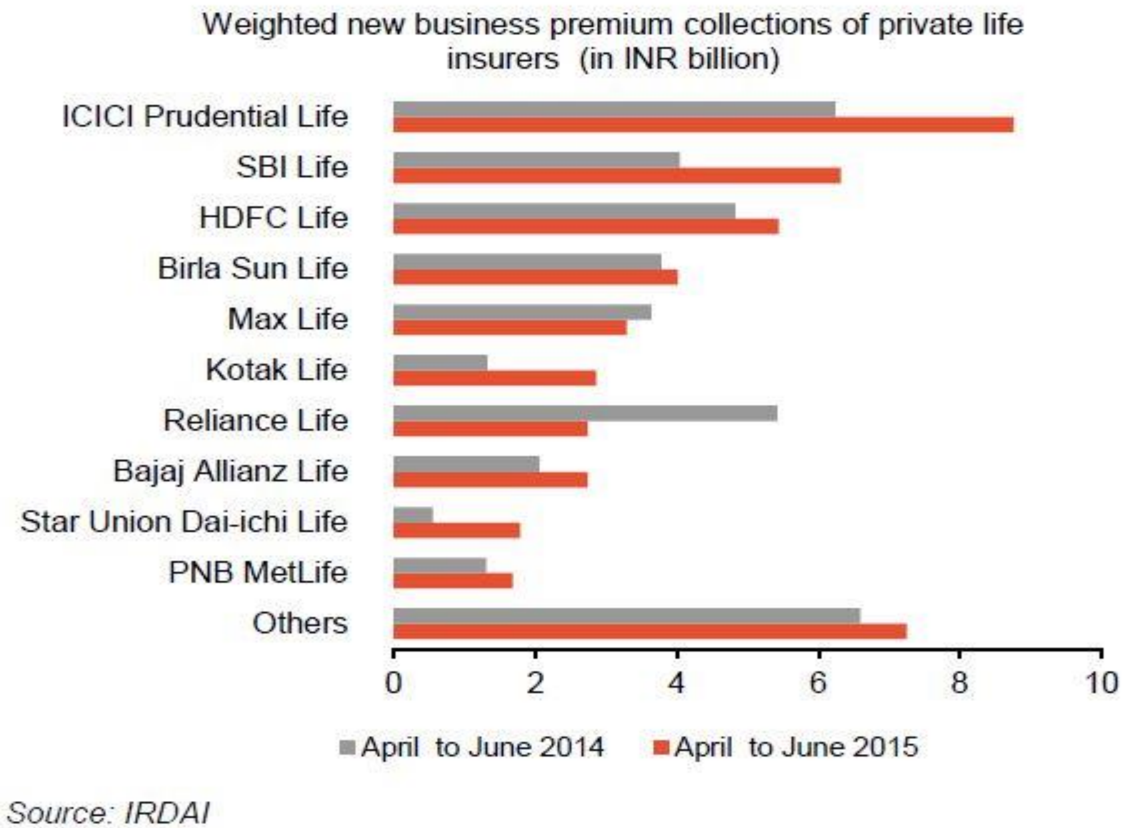



**Figure 3: Weighted new business premium collections of private life insurers**
**Source: IRDAI**

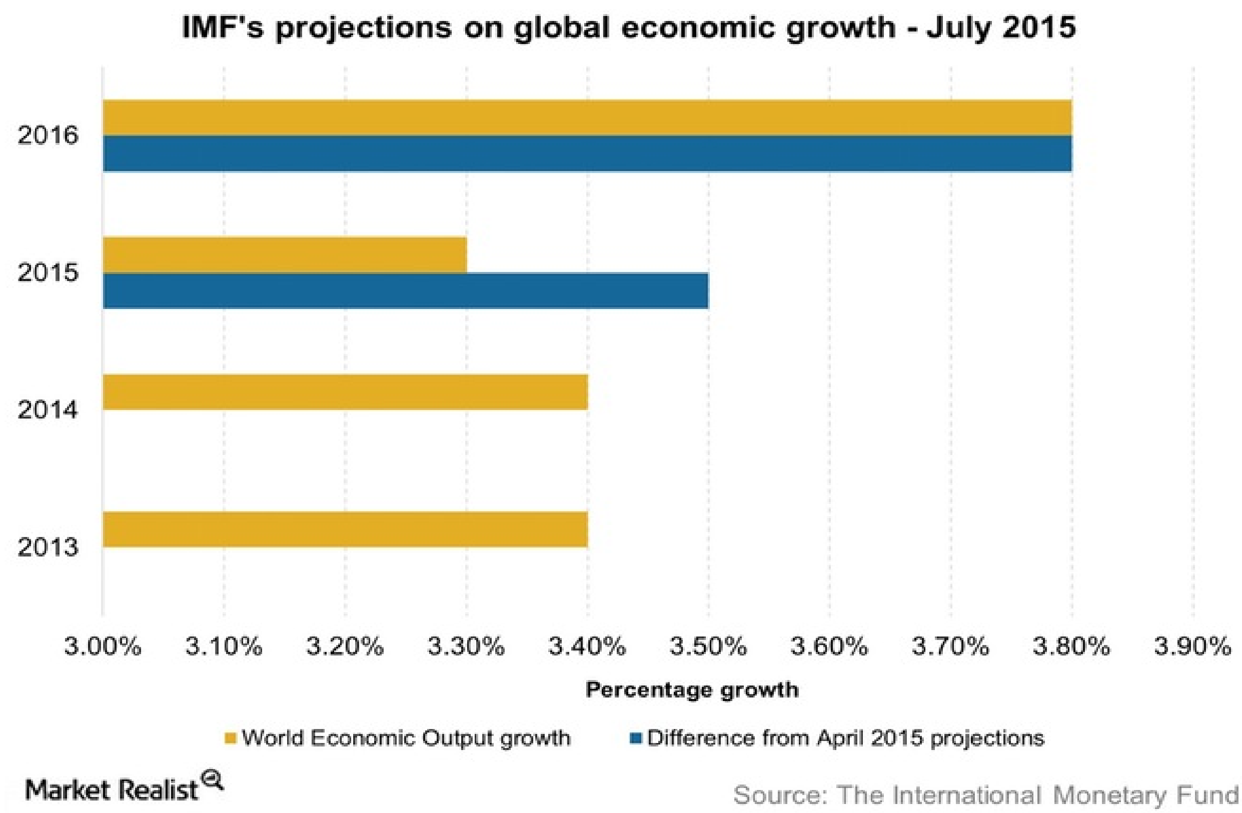



Figure 4: IMF projections on global economic growth
Source: The international monetary fund

**3.4.2PROFILE OF LIFE INSURANCE COMPANIES IN INDIA**

All private life insurance companies and public sector Companies operating in India during 2000-01 to 2009-10 were taken for the study. Life Insurance Corporation which is the only public sector life insurer and twenty two private sector life insurers, most of them joint ventures between Indian groups and global insurance giants, were taken for the study.

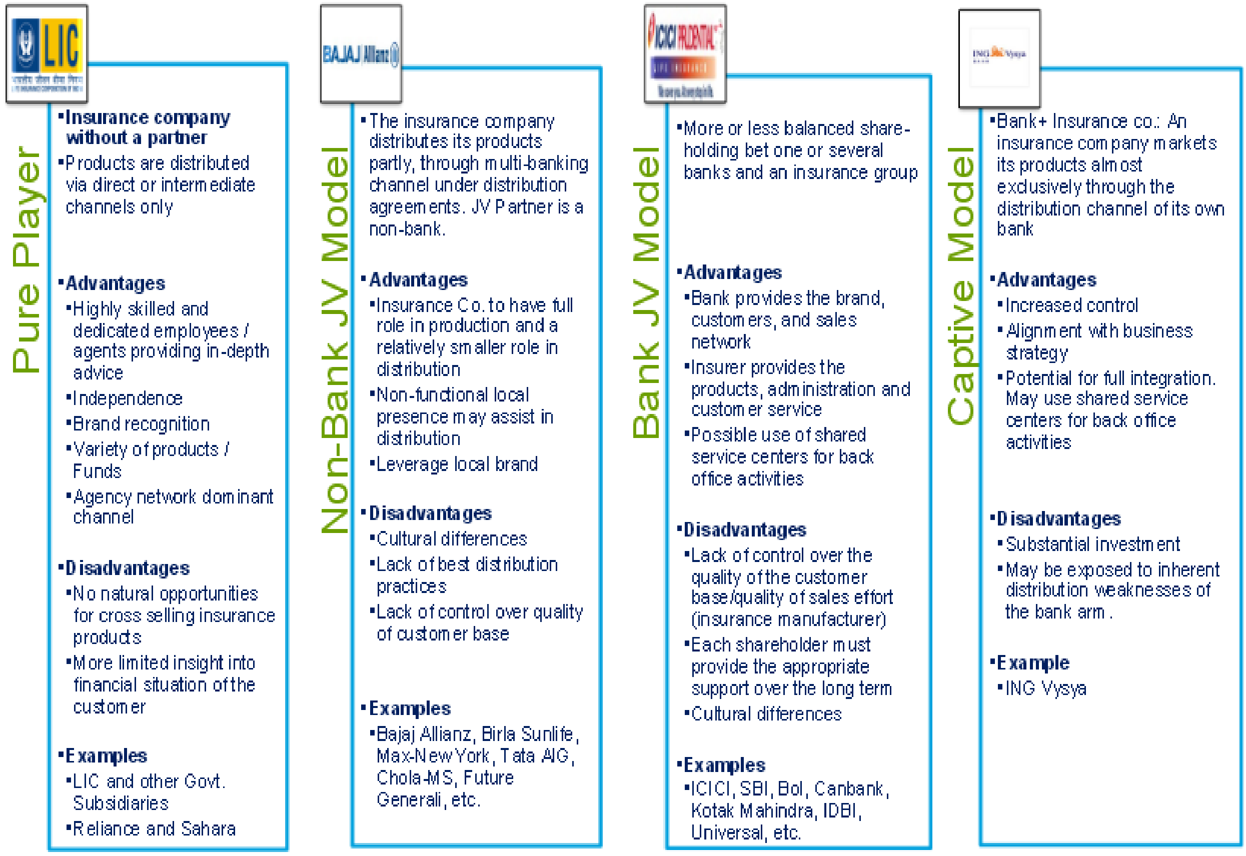



Figure 5: Business model of life-insurance company

## 3.4.2 (A) PUBLIC SECTOR:

LIFE INSURANCE CORPORATION OF INDIA (LIC)

Life Insurance Corporation of India (LIC) is an autonomous body authorized to run the life insurance business in India with its Head office at Mumbai. About 154 Indian insurance companies, 16 non-Indian insurance companies and 75 provident fund society were operating in India at the time of nationalization. Nationalization was accomplished in two stages; initially the management of the companies was taken over by means of an ordinance and later, the ownership by means of a comprehensive bill. The Parliament of India passed the Life Insurance Corporation Act on the 19$^{th}$ of June 1956, and the Life Insurance Corporation of India was created on 1$^{st}$ September, 1956, with the objective of spreading life insurance much more widely and in particular to the rural areas with a view to reach all insurable persons in the country, providing them adequate financial cover at a reasonable cost.

Following are the objectives of life insurance Corporation of India:

i) Spreading life insurance much more widely and in particular to the rural area and to the socially and economically backward classes, with a view to reach all insurable persons in the country and provide them adequate financial coverage against death at a reasonable cost

ii) Maximizing mobilization of people saving by making insurance linked savings adequately attractive.

iii) Investing funds to the best advantage of the investors as well as the community as a whole keeping in view national priorities and obligations of attractive return.

iv) Meeting the various life insurance needs of the community that would arise in the changing social and economic environment through tis family scheme and group insurance schemes.

The life insurance activity is solely managed by life insurance Corporation of India in the public sector. The life Insurance Corporation was established about 55 years ago with a view to provide an insurance cover against various risks in life. A monolith then, the corporation, enjoyed a monopoly status and became synonymous with life insurance.

LIC of India has been one of the pioneering organizations in India who introduced the leverage of Information Technology in servicing and in their business.

1964 saw the introduction of computers in LIC of India. Unit Record Machines introduced in late 1950's were phased out in 1980's and replaced by microprocessors based computers in branch and divisional offices for back office computerization. Standardization of hardware and software commenced in 1990's. Standard computer packages were developed and implemented for ordinary and salary savings scheme (SSS) policies.

LIC of India has 5 zonal offices, 33 divisional offices and 212 branch offices, apart from its corporate office in the year 1956. Since life insurance contracts are long term contracts and during the currency of the policy it requires a variety of services, a need was felt in the later years to expand the operations and place a branch office at each district headquarter. Re-organization of LIC of India took place and large numbers of new branch offices were opened. As a result of re-organization servicing functions were transferred to the branches, and branches were made accounting units. It worked wonders with the performance of the corporation.

Today LIC of India functions with 3250 fully computerized branch offices, 100 divisional offices, 7 zonal offices and corporate office. LICs wide area network covers 100 divisional offices and connects all the branches through a Metro Area Network. LIC of India has tied up with some Banks and Service providers to offer on-line premium collection facility in selected cities. LICs ECS and ATM premium payment facility is an addition to customer convenience. Apart from on-line Kiosks and IVRS, Info Centers have been commissioned at Mumbai, Ahmedabad, Banglore, Chennai, Hyderabad, Kolkata, New Delhi, Pune and many other cities. With a vision of providing easy access to its policy holders, LIC of India has launched its satellite sampark offices. The satellite offices are smaller, leaner and closer to the customer.

### 3.4.2 (B) PRIVATE SECTOR

The government having tried various models for the insurance industry such as privatization with negligible regulation (pre 1956) and nationalization (1956- 2000) and having observed sub optimal performance of the sector, resorted to adopting a hybrid model of both these, resulting in privatization of the sector with an efficient regulatory mechanism (post 2000) and having observed sub optimal performance of the sector, resorted to adopting a hybrid model of both these, resulting in privatization of the sector with an efficient regulatory mechanism (post 2000). This was initiated with the aim of making the industry competitive so that there are more players offering a greater variety of products over a large section of the population.

The following companies are entitled to do insurance business in India:-

| Sr. No. | Registration No. | Date of Registration | Name of the Insurer |
|---|---|---|---|
| 1 | 101 | 23/10/2000 | HDFC Standard Life Insurance Co. Ltd. |
| 2 | 104 | 15/11/2000 | Max New York Life Insurance Co. Ltd. |
| 3 | 105 | 24/11/2000 | ICICI Prudential Life Insurance Co. Ltd. |
| 4 | 107 | 10/01/2001 | Kotak Mahindra Old Mutual Life Insurance Co. Ltd. |
| 5 | 110 | 12/02/2001 | TATA AIG Life Insurance Co. Ltd. |
| 7 | 111 | 30/03/2001 | SBI Life Insurance Co. Ltd. |
| 8 | 114 | 02/08/2001 | ING Vysya Life Insurance Co. Ltd. |
| 9 | 116 | 03/08/2001 | Bajaj Allianz Life Insurance Co. Ltd. |
| 10 | 117 | 06/08/2001 | Met Life India Insurance Co. Ltd. |
| 11 | 121 | 03/01/2002 | Reliance Life Insurance Co. Ltd. |
| 12 | 122 | 14/05/2002 | Aviva Life Insurance Co. Ltd. |
| 13 | 127 | 06/02/2004 | Sahara India Life Insurance Co. Ltd. |
| 14 | 128 | 17/11/2005 | Shriram Life Insurance Co. Ltd. |
| 15 | 130 | 14/07/2006 | Bharti Axa Life Insurance Co. Ltd. |
| 16 | 133 | 04/09/2007 | Future Generali India Life Insurance Co. Ltd. |
| 17 | 135 | 19/12/2007 | IDBI Fortis Life Insurance Co. Ltd. |
| 18 | 136 | 08/05/2008 | Canara HSBC Oriental Bank of Commerce Life Insurance Co. Ltd. |
| 19 | 138 | 27/06/2008 | Aegon Religare Life Insurance Co. Ltd. |
| 20 | 140 | 27/06/2008 | DLF Pramerica Life Insurance Co. Ltd. |
| 21 | 142 | 26/12/2008 | Star Union Dai- ichi Life Insurance Co. Ltd. |
| 22 | 143 | 05/11/2009 | India First Life Insurance Co. Ltd. |

Table 3: Registered life insurance companies in India

PRIVATE LIFE INSURANCE COMPANIES AND THEIR PROMOTER

| Sr. No. | Name of the Insurer | Indian Promoter | Foreign Promoter |
|---|---|---|---|
| 1 | HDFC Standard Life Insurance Co. Ltd. | HDFC Ltd. | Standard Life Assurance, UK |
| 2 | Max New York Life | Max India | New York Life, USA |

| | | | |
|---|---|---|---|
| | Insurance Co. Ltd. | | |
| 3 | ICICI Prudential Life Insurance Co. Ltd. | ICICI Bank | Prudential, UK |
| 4 | Kotak Mahindra old mutual Life Insurance | Kotak | Old mutual, South Africa |
| 5 | Birla Sun Life Insurance Co. Ltd. | Birla Group | Sun Life, Canada |
| 6 | TATA AIG Life Insurance Co. Ltd. | TATA Group | American International Assurance Co., USA |
| 7 | SBI life Insurance Co. Ltd. | SBI | BNP Paribas Assurance, France |
| 8 | ING Vyasa Life | Vyasa Bank | ING insurance International, Netherlands |
| 9 | Bajaj Allianz Life Insurance Co. Ltd. | Bajaj Auto | Allianz, Germany |
| 10 | Met Life India Insurance Co. Ltd. | J & K Bank | Met life International Holdings Ltd, USA |
| 11 | Reliance Life Insurance Co. Ltd. | Reliance Capital | - |
| 12 | Aviva Life Insurance Co. Ltd. | Dabour Group | Aviva International |
| 13 | Sahara India Life Insurance Co. Ltd. | Sahara Group | - |
| 14 | Shriram Life Insurance Co. Ltd. | Shriram Group | Sanlam Group, South Africa |
| 15 | Bharti Axa Life Insurance Co. Ltd. | Bharti Group | AXA Holdings, France |
| 16 | Future Generali India Life Insurance Co. Ltd. | Future Group | Pantaloon Retail Ltd Sain Marketing Network Pvt. Ltd. (SMNPL), Generali, Italy |
| 17 | IDBI Fortis Life Insurance Co. Ltd. | IDBI bank | Federal Bank Fortis, Netherlands |
| 18 | Canara HSBC Oriental Bank of commerce Life Insurance Co. Ltd. | Canara Bank | HSBC Insurance (Asia Pacific) Holdings Ltd. And Oriental Bank of Commerce |
| 19 | Aegon religare Life Insurance Co. Ltd. | Religare Enterprises Limited | Aegon, US |
| 20 | DLF Pramerica Life Insurance Co. Ltd. | DLF Group | PFI, US |
| 21 | Star Union Dai- ichi Life Insurance Co. Ltd. | Bank of India, Union Bank of India | Dai- ichi Mutual Life Insurance Co., Japan |
| 22 | India First Life Insurance Co. Ltd. | Bank of Baroda, Andhra Bank | Legal General, UK |

Table 4: Private life insurance companies and their promoter

INSURER VISE LIFE INSURANCE OFFICES

| LIFE INSURER | 2000-01 | 2001-02 | 2002-03 | 2003-04 | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10 |
|---|---|---|---|---|---|---|---|---|---|---|
| HDFC standard life insurance Co. Ltd. | 2 | 4 | 18 | 26 | 90 | 150 | 448 | 569 | 609 | 568 |
| MAX NEW YORK LIFE | 3 | 15 | 23 | 33 | 64 | 84 | 118 | 194 | 705 | 705 |
| ICICI Prudential Life Insurance Co. Ltd. | 6 | 14 | 29 | 69 | 109 | 175 | 583 | 1958 | 2102 | 1921 |
| Kotak Mahindra Life Insurance Co. | NA | 9 | 28 | 39 | 43 | 75 | 151 | 198 | 215 | 215 |
| Birla Sun Life Insuracne Co. Ltd. | 2 | 19 | 29 | 41 | 53 | 97 | 148 | 538 | 660 | 652 |
| TATA AIG Life Insurance Co. Ltd. | NA | 6 | 13 | 26 | 40 | 72 | 89 | 283 | 454 | 439 |
| SBI Life Insurance Co. Ltd. | NA | 5 | 19 | 19 | 31 | 46 | 138 | 200 | 489 | 494 |
| ING Vysya Life Insurance Co. Ltd. | NA | 4 | 16 | 26 | 38 | 68 | 183 | 265 | 265 | 254 |
| BAJAJ ALLIANZ Life Insuracne Co. Ltd. | NA | 17 | 33 | 49 | 153 | 567 | 877 | 1007 | 1164 | 1151 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| MET Life India Insurance Co. Ltd. | NA | 3 | 8 | 16 | 35 | 43 | 53 | 94 | 190 | 255 |
| Reliance Life Insurance Co. Ltd. | NA | 17 | 35 | 48 | 80 | 157 | 159 | 745 | 1145 | 1247 |
| AVIVA Life Insurance Co. Ltd. | NA | 3 | 12 | 22 | 50 | 110 | 140 | 213 | 224 | 186 |
| SAHARA India Life Insurance Co. Ltd. | NA | NA | NA | 2 | 18 | 18 | 33 | 33 | 49 | 49 |
| SHRIRAM Life Insurance Co. Ltd. | NA | NA | NA | NA | NA | 11 | 12 | 53 | 98 | 162 |
| Bharti Axa Life Insurance Co. Ltd. | NA | NA | NA | NA | NA | NA | 10 | 16 | 77 | 200 |
| Future Generali India Life Insurance Co. Ltd. | NA | NA | NA | NA | NA | NA | NA | NA | 9 | 93 |
| IDBI Fortis Life Insurance Co. Ltd. | NA | NA | NA | NA | NA | NA | NA | 2 | 33 | 37 |
| Canara HSBC Oriental Bank Of Commerce Life Insurance Co.Ltd. | NA | NA | NA | NA | NA | NA | NA | NA | 32 | 33 |
| Argon Religare Life Insurance Co. Ltd. | NA | NA | NA | NA | NA | NA | NA | 58 | 66 | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| DLF Premercia Life Insurance Co. Ltd. | NA | NA | NA | NA | NA | NA | NA | 15 | 32 | |
| Star Union Dai- Ichi Life Insurance Co. Ltd. | NA | NA | NA | NA | NA | NA | NA | 2 | 7 | |
| India First Life Insurance Co.Ltd. | NA | NA | NA | NA | NA | NA | NA | NA | NA | 2 |
| Life Insurance Corporation of India | 2186 | 2190 | 2196 | 2197 | 2220 | 2301 | 2522 | 3030 | 3250 | |

Table 5: Life insurance offices

The numbers of offices in case of both Life Insurance Corporation of India and private life insurance companies have increased during the period 2000-01 to 2009-10. This indicates that the life insurance business has been expanding in India.

1. HDFC STANDARD LIFE INSURANCE CO. LTD.

HDFC Standard Life Insurance Company Ltd. is one of India's leading private insurance companies, which offers a range of individual and group insurance solutions. HDFC Standard Life Insurance Co. Ltd. is a joint venture between HDFC Ltd., India's largest housing finance institution and Standard Life Assurance Company, Europe's largest mutual life company. It was the first life insurance company to be granted a certificate of registration by the IRDA on the 23$^{rd}$ of October, 2000. HDFC holds about 72.43% of the equity; Standard Life holds 26% while rest is held by others.

Standard Life, UK was founded in 1825 and has an experience of over 185 years. The company is rated as "very strong" by Standard & Poor's (AA) and "excellent" by Moody's (Aa2). Headquarterd in Edinburgh, Standard Life has around 9000 employees across the UK, Canada, Ireland, Germany, Austria, India, USA, Hong Kong and mainland China. The standard life group includes savings and investments business, which operate across its UK, Canadian and European markets; corporate pensions and benefits business in the UK and Canada; Standard Life Investments is a global investment manager.

HDFC Limited, India's premier housing finance institution has assisted more than 3.8 million families to own a home, since its inception in 1977 across 2400 cities and towns through its network of over 289 offices. It has international offices in Dubai, London and Singapore with service associates in Saudi Arabia, Qatar, Kuwait and Oman to assist NRI's and PIO's to own a home back in India. HDFC has set benchmarks for the Indian housing finance industry. Recognition for the service to the sector has come from several national international entities including the World Bank that has lauded HDFC has undertaken a lot of consultancies abroad assisting different countries including Eqypt, Maldives, Mauritius, Bangladesh in the setting up of housing finance companies.

2. MAX NEW YORK LIFE INSURANCE CO. LTD.

Max New York Life Insurance Company Limited is a joint venture between Max India Limited, a multi-business corporate, and New York Life International, a global expert in life insurance.
New York Life is a Fortune 100 company that has over 160 years of experience in the life insurance business. Max India Limited is a multi-business corporate dealing in Clinical Research, IT and Telecom Services and Specialty plastic product business.
Max New York Life Insurance started its operations in India on 15$^{th}$ November, 2000. It is the first life insurance company in India to be awarded the ISO 9001:2000 certifications. Max New York offers customized products tailored to suit individual's needs. With its various Products and Riders, they offer more than 400 product combinations. Today, Max New York Life Insurance has a network of 705 offices spread over 37 cities all over India.
Max New York Life has identified individual agents as its primary channel of distribution. The Company places a lot of emphasis on its selection process, which comprises four stages-screening, psychometric test, career seminar and final interview. The agent advisors are trained in-house to ensure optimal control on quality of training. Max New York Life invests significantly in its training programmer and each agent is trained for 152 hours as opposed to the mandatory 100 hours stipulated by the IRDA before beginning to sell in the marketplace. Training is a continuous process for agents at Max New York Life and ensures development of skills and knowledge through a structured programmed spread over 500 hours in two years. This focus on continuous quality training has resulted in the company having amongst the highest agent pass rate in IRDA examinations and the agents have the highest productivity among private life insurers.
Having set a best in class agency distribution model in place, the company is spearheading a major thrust into additional distribution channels to further grow its business. The company is using a five-pronged strategy to pursue alternative channels of distribution. These include the franchisee model, rural business, direct sales force involving group insurance and telemarketing opportunities, bancassurance and corporate alliances.

3. ICICI PRUDENTIAL LIFE INSURANCE CO. LTD.

ICICI Prudential Life Insurance Company is a joint venture between ICICI Bank, a premier financial powerhouse and prudential plc, a leading international financial services group headquartered in the United Kingdom.

ICICI was established in 1955 to lend money for industrial development. Today, it has diversified into retail banking and is the largest private bank in the country. Prudential plc was established in 1848 and is presently the largest life insurance company. Total capital infusion stands at Rs. 33.62 billion, with ICICI Bank holding a stake of 74% and Prudential plc holding 26%.

They began their operations in 24th November, 2000 after receiving approval from Insurance Regulatory Development Authority (IRDA). Today, their nation-wide team comprises of over 1000 offices, over 263,000 advisors; and 22 bancassurance partners. ICICI Prudential was the first life insurer in India to receive a National Insurer Financial Strength rating of AAA from Fitch ratings. For three years in a row, ICICI Prudential has been voted as India's Most Trusted Private Life Insurer, by The Economics Times – AC Nielson ORG Marg survey of 'Most Trusted Brands.'

4. KOTAK MAHINDRA OLD MUTUAL LIFE INSURANCE CO. LTD.

Kotak Mahindra Old Mutual Life Insurance Life Insurance Ltd. is a joint venture between Kotak Mahindra Bank Ltd. (KMBL), and Old Mutual Plc. Kotak Mahindra is one of India's leading financial institutions and offers a range of financial services such as commercial banking, stock broking, mutual funds, life insurance, and investment banking. Kotak Mahindra Old mutual Life Insurance Ltd. started its operations in India on 10th January, 2000.

Old Mutual, a company with 160 years experience in life insurance was established more than 150 years ago and offers a diverse range of financial services in South Africa, the United States and the United Kingdom. The company is listed on the London Stock Exchange with a market capitalization and has its head quarters in London. Kotak Mahindra Old Mutual Life Insurance is a 74:26 joint venture between Kotak Mahindra Bank Ltd. and Old Mutual plc. Kotak Mahindra Old Mutual Life Insurance is one of the fastest growing insurance companies in India and has shown remarkable growth since its inception in 2001.

5. BIRLA SUN LIFE INSURANCE CO. LTD.

Established in 2001, Birla Sun Life Insurance Company Limited (BSLI) is a joint venture between the Aditya Birla Group, a well known and trusted name globally amongst Indian conglomerates and Sun Life Financial of Canada. Aditya Birla Group is an Indian multinational conglomerate with presence in India, Thailand, Indonesia, Malaysia, Philippines, Egypt, Canada, Australia and

China.

Sun Life Assurance, Sun Life Financials primary insurance business, is one of the leading insurance companies of the world and ranks amongst the largest international financial services organizations in the world. With an experience of over 10 years, BSLI has contributed significantly to the growth and development of the life insurance industry in India and currently ranks amongst the top ten private life insurance companies in the country.

Known for its innovation and creating industry benchmarks, BSLI has several first to its credit. It was the first Indian Insurance Company to introduce "Free Look Period" and the same was made mandatory by IRDA for all other life insurance companies. Additionally, BSLI pioneered the launch of Unit Linked Life Insurance plans amongst the private players in India. To establish credibility and further transparency, BSLI also enjoys the prestige to be the originator of practice to disclose portfolio on monthly basis. These category development initiatives have helped BSLI be closer to its policy holders' expectations, which gets further accentuated by the complete bouquet of insurance products (viz. pure term plan, life stage products, health plan and retirement plan) that the company offers.

It has an extensive reach through its network of 600 branches and 1, 47,900 empanelled advisors. This impressive combination of domain expertise, product range, reach and ears on ground, helped BSLI cover more than 2.4 million lives since it commenced operations and establish a customer base spread across more than 1500 towns and cities in India. BSLI has ensured that it has lowest outstanding claims ratio of 0.00% for FY 2010 -11. The company has web -enabled IT systems for better customer services and a strong distribution channel. It has professional knowledge and global expertise of Aditya Birla Group.

6. TATA AIG LIFE INSURANCE CO. LTD.

Tata AIG Life Insurance Company Limited is a joint venture between Tata Group and American International Group, Inc. (AIG). Tata Group is one of the oldest and leading business groups of India. Tata Group has had a long association with India's insurance sector having been the largest insurance company in India prior to the nationalization of insurance. The Late Sir Dorab Tata was the founder Chairman of New India Assurance Co. Ltd., a group company incorporated way back in 1919.

American International Group, Inc is the leading U.S. based international insurance and financial services organization and the largest underwriter of commercial and industrial insurance in the United States. AIG has one of the most extensive life insurance networks in the world.

Tata AIG Life combines the Tata Group"s pre-eminent leadership position in India and AIG"s global presence as the world"s leading international insurance and financial services organization. The Tata Group holds 74 per cent stake in the insurance venture with AIG holding the balance 26 percent. Tata AIG Life provides insurance solutions to individuals and corporates. Tata AIG Life Insurance Company was licensed to operate in India on February12, 2001 and started operations on April 1, 2001.

7. SBI LIFE INSURANCE CO. LTD.

SBI Life Insurance is a joint venture between the State Bank of India and Cardif of France. State Bank of India is the largest banking franchise in India. Along with its 7 Associate Banks, SBI Group has a network of over 14, 500 branches across the country, the largest in the world.

Cardif is a wholly owned subsidiary of BNP Paribas, which is The Euro Zone's leading Bank. BNP is one of the oldest foreign banks with a presence in India dating back to 1860. SBI Life Insurance is registered with an authorized capital of Rs 1000 crore and a paid up capital of Rs 500 crores. SBI owns 74% of the total capital and Cardif the remaining 26%.Cardif is ranked 2nd worldwide in creditor‟s insurance offering protection to over 35 million policyholders and net income in excess of Euro 1 billion. Cardif has also been a pioneer in the art of selling insurance products through commercial banks in France and in 35 more countries.
SBI Life has a unique multi-distribution model encompassing Bancassurance, Agency and Group Corporates.SBI Life extensively leverages the SBI Group as a platform for cross-selling insurance products along with its numerous banking product packages such as housing loans and personal loans. SBI‟s access to over 100 million accounts across the country provides a vibrant base for insurance penetration across every region and economic strata in the country ensuring true financial inclusion.

8. ING VYSYA LIFE INSURANCE CO. LTD.

ING Vysya Life Insurance Company Limited is a joint venture between Vysya Bank and ING Group of Holland, the world's 4th largest financial services group, with presence across 50 countries, and a heritage of over 150 years. INGVysya Life Insurance Company Limited (the company) entered the private life insurance industry in India in September 2001, and has establishe itself as a distinctive life insurance brand with an innovative, attractive and customer friendly product portfolio and a professional advisor sales force. It has a dedicated and committed advisor sales force of over 21,000 people, working from 140 branches located in 4 major cities across the country and over 3,000 employees. It also distributes products in close cooperation with the ING Vysya Bank network. The Company has a customer base of over, 50,000 and is headquartered at Bangalore. The Company’s portfolio offers products that cater o very financial requirement, at any life stage. Infact, the company has developed the LifeMaker-a simple method which can be used to choose a plan most suitable to a specific customer based on his needs, requirements and current life stage.

9. BAJAJ ALLIANZ LIFE INSURANCE CO. LTD.

Bajaj Allianz is a joint venture between Allianz AG one of the world's largest insurance companies, and Bajaj Auto, one of the biggest two and three wheeler manufacturer in the world. Bajaj Allianz is into both life insurance and general insurance. Allianz Group is one of the world's Leading insurers and financial services providers. Founded in 1890 in Berlin, Allianz is now resent n over 70 countries with almost 174,000 employees. Allianz is a leading insurance conglomerate globally and one of the largest asset managers in the world, managing assets worth over a Trillion Euros (Over Rs. 55,00,000 crores). Allianz SE has over 115 years of financial experience in over 70 countries. Today, Bajaj Allianz is one of India's leading and fastest growing insurance companies. Currently, it has presence in more than 550 locations with over 60,000 Insurance Consultants.

10. METLIFE INDIA INSURANCE CO. LTD.

Met Life Insurance Co .Ltd is a joint venture between MetLife Group and its Indian partners. The Indian partners include J&K Bank, Dhanalakshmi Bank, Karnataka Bank, Karvy Consultants, eojit securities, Way2Wealth, and Mini Muthoothu. Met Life Group has presence in America and Asia and has an experience of over 139 years in providing financial services. The Met life companies re he number one life insurer in the U.S. with approximately US $2.8 trillion of life insurance in force. MetLife serves 88 of the top one hundred FORTUNE 500 companies. MetLife entered Indian insurance sector in 2001. The MetLife companies offer life insurance, annuities, automobile and home insurance, retail banking and other financial services to individuals, as well as group insurance, reinsurance and retirement and savings products and services to corporations and other institutions, reaching more than 70 million customers around the world.

11. RELIANCE LIFE INSURANCE CO. LTD.

AMP Sanmar Life Insurance was a joint venture between AMP, Australia and the Sanmar Group. Headquartered in Chennai, AMP Sanmar had over 90 offices across the country, 9000 agents, and more than 900 employees. Consequent to the acquisition of the entire equity capital of AMP, Australia and Sanmar Group in AMP Sanmar Life Insurance Co. Ltd., by Reliance Capital Limited, ‘AMP Sanmar Life Insurance Co. Ltd.’ has changed to ‘Reliance Life Insurance Co. Ltd.’ on 17.01.2006. Reliance Life Insurance Company Limited is a part of Reliance Capital Ltd. of the Reliance -Anil Dhirubhai Ambani Group. The company acquired 100 percent shareholding in AMP Sanmar Life Insurance Company in August 2005. RLIC has a huge network of around 1145 branches covering a wide geographical area. It is one of the ISO 9001:2000 certified life insurance companies of India. Reliance Capital has interests in asset management and mutual funds, stock broking, life and general insurance, proprietary investments, private equity and other activities in financial services. Reliance Group also has presence in Communications, Energy, Natural Resources, Media, Entertainment, Healthcare and Infrastructure.

12. AVIVA LIFE INSURANCE COMPANY LTD.

Aviva Life Insurance Company India Pvt. Ltd. is a joint venture between Aviva of UK and Dabur, one of India's leading producers of traditional healthcare products. Aviva holds a 26 per cent stake in the joint venture and the Dabur group holds the balance 74 per cent share. Aviva is

UK's largest and the world's sixth largest insurance Group. It is one of the leading providers of life and pensions products to Europe and has substantial businesses elsewhere around the world. Aviva pioneered the concept of Banc assurance in India. Currently, Aviva has Bancassurance tie -ups with ABN Amro Bank, American Express Bank, Canara Bank, Centurion Bank of Punjab, The Lakshmi Vilas Bank Ltd. and Punjab and Sind Bank, 11 Co-operative Banks in Gujarat, Rajasthan, Jammu & Kashmir and Maharashtra and one regional Bank in Sikkim. Aviva has 40 Branches in

India (including rural branches) supporting its distribution network. Through its Bancassurance partner locations, Aviva products are available in 378 towns and cities across India. Aviva is one of the leading providers of life and pensions products to Europe and has substantial businesses elsewhere around the world. With a history dating back to 1696, Aviva has a 40 million-customer base worldwide. It has more than £377 billion of assets under management. In India;

Aviva has a long history dating back to 1834. At the time of nationalization it was the largest foreign insurer in India in terms of the compensation paid by the Government of India. Aviva was also the first foreign insurance company in India to set up its representative office in 1995.With a strong sales force of over 28,000 Financial Planning Advisers (FPAs), Aviva has initiated an innovative and differentiated sales approach to the business. Through the “Financial Health Check” (FHC) Aviva’s sales force has been able to establish its credibility in the market. The FHC is a free service administered by the FPAs for a need-based analysis of the customer’s long-term savings and insurance needs. Depending on the life stage and earnings of the customer, the FHC assesses and recommends the right insurance product for them. Aviva has176 Branches in India (including rural branches) supporting its distribution network. Through its Bancassurance partner locations, Aviva products are available inmorethan1600locations across India. Through its association with Basix (a micro financial institution) and other NGOs, it has been able to reach the weaker sections of the society and provide life insurance to them. Aviva has been felicitated with the "Bronze Award for Excellence in People Management" by Grow Talent Company Limited and Business world. This honor is given to Aviva based on the ranks received in top 25 list of the Great Place to Work India studies conducted in the last four years.

13. SAHARA INDIA LIFE INSURANCE CO. LTD.

The Sahara Pariwar’s latest foray is in the field of Life Insurance. The Pariwar’s life insurance company –Sahara India Life Insurance Company Ltd.-has been granted license by IRDA on 6th February,2004. With this approval Sahara India Life Insurance Company Ltd. becomes the first wholly and purely Indian company, without any foreign collaboration to enter the Indian Life insurance market. The launch is with an initial paid up capital of 157 crores. Sahara Pariwar, the world’s largest 'family' with diversified business interests, is a recent entrant in the field of life insurance. With this approval, Sahara Life Insurance becomes the first wholly Indian-owned company in the Indian life insurance market without any collaboration with the organizations abroad. The company offers both individual and group insurance products.

## 14. SHRIRAM LIFE INSURANCE COMPANY LTD.

Shriram Life Insurance Company Ltd. is a joint venture between the Chennai-based Shriram group and the South African insurance major Sanlam. The company launched its operations in India in December 2005.The Shriram Group has over three decades of experience in Chit Funds, truck Financing and other financial services businesses in India. SANLAM is one of the largest Life Insurance and Asset Management firms in South Africa with assets of over $ 55.6 billion under management and 87 years of experience in these businesses

The Shriram Group has over three decades of experience in Chit Funds, Truck Financing and other financial services businesses in India. The Shriram Group is one of the largest and well-respected financial services conglomerates in India. The Group's main line of activities in financial services include chit fund, truck financing, consumer durable financing, stock broking, insurance broking and life insurance. The Group has a customer base of 30 lakh chit subscribers and investors and operates through a network of 630 offices all over the country. The Group has the largest agency force in the private sector consisting of more than75,000 loyal and dedicated agents.

Sanlam Life Insurance Limited, a part of the Sanlam Group, is one of the largest providers of life insurance in South Africa with 3.2 million individual policies under administration. It has a significant presence across South Africa, United Kingdom and Namibia and is a major provider of life insurance, retirement annuities, saving and investment products, personal loans, home loans and trust services to individuals. The shareholder's funds of Sanlam Life equates to USD 4.4 billion. The Sanlam Group was established in 1918 and has a leadership position in financial services in South Africa. Demutualized in 1998, the group is listed on the JSE Securities exchange in Johannesburg and on the Namibian Stock Exchange. It has a current market capitalization of USD 5.4 billion. The Sanlam Group also operates in the areas of group schemes, Retirement funds, short-term insurance, asset management and other financial services.

## 15. BHARTI AXA LIFE INSURANCE CO. LTD.

Bharti AXA Life Insurance Co. Ltd. is a joint venture between Bharti, one of India's leading business groups in telecom, agricultural business and retail, and AXA, which is a global leader in financial protection and wealth management. Bharti Enterprises has been a pioneering force in the telecom sector with over 110 million customers while AXA major operations are in Western Europe, North America and the Asia/Pacific region. It also has operations in Australia, New Zealand, Hong Kong, Singapore, Indonesia, Philippines, Thailand, China, India and Malaysia. Bharti XA Life Insurance is an entity jointly controlled by these two giants with Bharti holding 74% stake and AXA, the rest 26%. The company launched its operations in India in December 2006.Bharti AXA life offers a range of innovative products and services that cater to specific insurance and wealth management needs of customers.

## 16. FUTURE GENERALI INDIA LIFE INSURANCE CO. LTD.

Future Generali is an insurance joint venture headquartered in Mumbai, India between the Italy - based Generali Group and the India-based Future Group. Future Generali operates Life and Non-Life insurance businesses through ‘Future Generali India Life Insurance Co. Ltd.’ and ‘Future Generali India Insurance Co. Ltd.’ The Generali Group is one of the most significant participants in the global insurance and financial product markets and is ranked as the 30th largest company in the world by Fortune (2007). The Group‟s Parent and principal operating company Generali is Assicurazioni Generali, market leader in Italy, founded in 1831 in Trieste. Generali is the largest corporation in Italy. Characterized from the outset by a strong international outlook and presence in 40 countries through 315 subsidiaries, 113 insurance companies and 126 financial and real estate companies, Generali has consolidated its position among the world's leading insurance operators, and has grown its importance in western Europe, the Company’s principal area of operation, with significant market shares in Germany, France, Austria, Spain and Switzerland. In recent years, the Group has made a remarkable return to central-eastern European markets and has set up offices in the principal markets of the Far East, among which China and India.

The Generali Group has experience dating back over almost two centuries, and with its recognized financial strength and consolidated partnerships with major international reinsures, operates in all classes of property and casualty insurance, from mass risks (like Auto TPL or Personal Injuries) to highly complex industrial plants, from simple policies for family protection to extensive contracts satisfying multinational companies complex needs. Generali provides coverage to individuals, protecting their incomes and optimizing their savings, through life insurance products, individual and group pension schemes. In this field Generali offers highly sophisticated solutions to multinational companies through a specialized structure, namely GEB (Generali Employee Benefits) located in Brussels. Assicurazioni Generali is ranked as „AA‟ by Standard & Poor (19.10.2006).

In the last decade, the Group has widened its product offerings from only insurance to include the entire range of financial services and asset management. It has more than 350,000 shareholders and over 66,000 employees. It is one of the largest insurance groups and the largest Bancassurer in Europe.

## 17. IDBI FORTIS LIFE INSURANCE CO. LTD.

IDBI Fortis Life Insurance Company is a joint venture between three leading financial conglomerates –India’s premier development and commercial bank, IDBI, India’s leading private sector bank, Federal Bank and Europe’s premier Bancassurer, Fortis, each of which enjoys a significant status in their respective business segments

IDBI Fortis launched its first set of products across India in March 2008, after receiving the requisite approvals from the Insurance Regulatory Development Authority (IRDA). IDBI Ltd. continues to be, since its inception, India's premier industrial development bank. Created in 1956 to support India's industrial backbone, IDBI has since evolved into a powerhouse of industrial and retail finance. Today, it is amongst India's foremost commercial banks, with a wide range of innovative products and services, serving retail and corporate customers in all corners of the country from over 490 branches and more than 600 ATMs. The Bank offers its customers an extensive range of diversified services including project financing, term lending, working capital facilities, lease finance, venture capital, loan syndication, corporate advisory services and legal and technical advisory services to its corporate clients as well as mortgages and personal loans to its retail clients. As part of its development activities, IDBI has been instrumental in sponsoring the development of key institutions involved in India's financial sector –such as the Securities and Exchange Board of India (SEBI), National Stock Exchange of India Limited (NSE) and National Securities Depository Ltd.

Federal Bank is one of India's leading private sector banks, with a national network and dominant presence in the state of Kerala. It has a strong network of over 550 branches and 450 TMs spread across India. The bank provides over four million retail customers with a wide variety of financial products. Federal Bank is one of the first large Indian banks to have an entirely automated and interconnected branch network. They operate on the core banking platform and are RTGS/ NEFT enabled through which the Bank offers state-of-the-art technology enabled products and services. In addition to interconnected branches and ATMs, the Bank has a wide range of services like Internet Banking, Mobile Banking, Tele Banking, Any Where Banking, debit cards, co-branded credit cards, online bill payment and call centre facilities to offer round the clock banking convenience to its customers.

Fortis , a European financial services provider engaged in banking and insurance with a presence in over 50 countries, offers its personal, business and institutional customers a comprehensive package of products and services through its own channels, in collaboration with intermediaries and through other distribution partners. With a market capitalization of over EUR 40 billion, Fortis ranks among the 20 largest financial institutions in Europe. Fortis" sound solvency position and dedicated, professional workforce of over 80,000, enables it to combine global strength with local flexibility to provide its clients with optimum support and service.

## 18. CANARA HSBC ORIENTAL BANK OF COMMERCE LIFE INSURANCE CO. LTD.

The shareholding pattern of the Joint Venture is as follows -Canara Bank holds 51%equity, HSBC Insurance (Asia Pacific) Holdings Ltd 26% and Oriental Bank of Commerce 23%. The Venture has an initial paid up capital of INR 325 crores. The Company commenced business 16thof June, 008 after receiving requisite approvals from the Insurance Regulatory Development Authority (IRDA). Canara HSBC Life has access to 4100 bank branches all over India. Canara Bank was established in 906, and has completed over a century of operations in the Indian banking industry. It is recognized today as the largest nationalized bank in India in terms of aggregate business volume. The Bank has an asset size valued at about US $30 billion as at 31st March, 2006. The Government of India owns about 73.17% of the Bank. Canara Bank has a rating of AAA/Stable RISIL (Credit Rating Information Services of India) respectively. It currently has 2641 branches spread across all geographical segments and a clientele base exceeding 31 million. The Bank provides an array of alternative delivery channels for its customers, including 1900 ATMs at 680 centers, Internet and Mobile banking and "Anywhere Banking services". The Bank has distinguished itself through innovations such as the first bank to offer a credit card for farmers and Agricultural Consultancy Services and through various corporate social responsibility initiatives promoting rural development, enhancing rural self employment through training institutes and spearheading the financial inclusion objective.

The HSBC Group, headquartered in London, is one of the world's largest banking and financial services organizations with 9500 offices in 81 countries and territories and assets of US $1,738 billion as on 30thJune, 2006. One of its founding and principal members is HSBC Bank. HSBC Bank s one of India's leading financial services groups, with over 25,000 employees in its banking, investment banking and capital markets, asset management, insurance broking, software development and global resourcing operations in the country. With offices throughout the Asia-Pacific region, it offers retirement benefits, life and medical cover, business and personal insurance. Among its many awards and recognitions, the Company was also recognized as the, Life Insurance Company of the Year 2006‟by Asia Insurance Review and London-based The Review -Worldwide Reinsurance.

Oriental Bank of Commerce was established in 1943 and is currently the eleventh largest bank n India in terms of assets. The Bank's assets totaled at US $13 billion as on 31st March, 2006. The government of India owns 51.1% of Oriental Bank of Commerce. The Bank has a credit rating of AA+/FAAA/P1+ from CRISIL. It has a distribution network of 1273 branches and 94 extension counters and 10 million customers. It offers convenient banking services through its 666 ATMs and currently, 96% of the Bank's business is covered within the CBS branch network. Known for its sound customer centric business practices, the bank has a base of over 10.4 million customers. The Bank has a number of Corporate Social Responsibility initiatives in the rural sector and for women such as a GRAMEEN PROJECT in Dehradun District (UP) and Hanumangarh district (Rajasthan). Formulated on the pattern of the Bangladesh Grameen Bank, the Scheme has a unique feature of disbursing small loans ranging from Rs. 75 onwards. The beneficiaries of the Grameen Project are mostly women. The Bank has also implemented a 14 point action plan for strengthening credit delivery to women and has designated 5 branches as specialized branches or women entrepreneurs.

19. AEGON RELIGARE LIFE INSURANCE CO. LTD.

AEGON, one of the world’s largest life insurance and pension groups, Religare, one of India’s leading integrated financial services groups and Bennett, Coleman & Company, India’s largest media house, have come together to launch AEGON Religare Life Insurance Company Limited. They launched pan-India multi-channel operations in July, 2008 with over 30 branches spread across India. In an industry first, AEGON Religare Life Insurance offers policy servicing on the phone via Interactive Voice Response System (IVR) by issuing the customer a T-Pin for authentication. It is also the first company to include the customer's medical report in the policy kit.

AEGON's businesses serve over 40 million customers in over 20 markets throughout the Americas, Europe and Asia, with major operations in the United States, the Netherlands and the United Kingdom. With headquarters in The Hague, Netherlands, AEGON companies employ Almost 2,000 people worldwide. The company's common shares are listed on four stock exchanges: Amsterdam, London, New York and Tokyo. It manages EUR 351 billion in revenue generating investments. AEGON has more than 160 years of experience with its roots going back to 1844. It holds 26% equity.

Religare is a diversified financial services group of India offering a multitude of investment options. Financial services which Religare offers can be broadly clubbed across three key verticals -Retail, Institutional and Wealth spectrums. Religare has also ventured into the alternative investments sphere through its holistic arts initiative and Film fund. With a view to expand, diversify and introduce offerings benchmarked against global best practices, Religare operates in the wealth management space under the brand name 'Religare Macquarie Private Wealth'. Religare has a pan India presence, 1837 locations across 498 cities and towns. It also currently operates from nine international locations following its acquisition of London's brokerage & investment firm, Hichens, Harrison & Co. plc. (Now Religare Hichens, Harrison Plc).

Bennett, Coleman & Co. Ltd. (BCCL), part of the mammoth Times Group, is India's largest media house. It reaches out to 2468 cities and towns all over India. The group owns and manages powerful media brands like The Times of India, The Economic Times, Maharashtra Times, Navbharat Times, Femina, Filmfare, Grazia, Top Gear, Radio Mirchi, Zoom, Times Now, Times Music, Times OOH, Private Treaties and indiatimes.com. From the very first edition on November 3, 1838 the mammoth BCCL Group has come a long way.

20. DLF PRAMERICA LIFE INSURANCE CO. LTD.

DLF Pramerica Life Insurance Company Ltd. (DPLI) is a joint venture between DLF Limited and prudential International Insurance Holdings, Ltd. (referred to hereafter as "PIIH"). PIIH is a fully owned subsidiary of Prudential Financial, Inc.DLF Limited is one of the largest and most expected organizations in the real estate sector in India with over six decades of experience and a track record of sustained growth, customer satisfaction, and innovation. In September 2006, DLF Limited was the only real estate firm to be nominated amongst the "Super brands of India" n the consumer validated category. After strengthening its position in the core business of residential, commercial and retail property development, the DLF group has now made forays into the infrastructure, SEZ and hotel businesses by entering into several strategic alliances with global industry leaders like Laing O'rourke Plc. and Hilton Hotels Corporation.

PFI is a U.S. based financial services leader with its headquarters in Newark, New Jersey, with approximately US$ 638 billion of assets under management as of June30, 2008 and operations in the United States, Asia, Europe and Latin America.PFI ranks among the Top 100 in the 2007 Forbes Global 2000 List, an annual tabulation of the world's largest public companies and ranks 1ston Fortune Magazine's list of World's Most Admired Companies in the Insurance: Life and health Insurance Category two years running, in 2007 and 2008.PFI's businesses offer a variety of products and services, including life insurance, annuities, retirement-related services, mutual funds, investment management, and real estate services. Pramerica is the brand name used in India and select countries by Prudential Financial, Inc. Prudential International Insurance holdings, Ltd. and Prudential Financial, Inc. of the United States.

21. STAR UNION DAI-ICHI LIFE INSURANCE CO. LTD.

Bank of India and Union Bank of India, two leading Public Sector Banks in India and the Dai-ichi Mutual Life Insurance Company, leading Japanese Company in the Life Insurance market, have floated a Joint Venture Company, "Star Union Dai-ichi Life Insurance Co. Ltd." for undertaking Life Insurance Business in India. The Company was incorporated, registered with the Registrar of companies, Maharashtra on 25thSeptember, 2007. The Company was issued the license for undertaking life insurance business in India by Insurance Regulatory and Development Authority IRDA) on 26.12.2008. The Company has a capital stake of 48% by BOI, 26% by Union Bank and 26% by Dai-ichi Life. The Company has authorized capital of Rs. 250.00 Crores. Star Union Dai-ichi Life, with the strength of the domestic partners in the Indian Financial Sector coupled with the Dai-ichi Life’s strong domain expertise is a strong player in the Indian Life insurance market. The Company offers various products. Bank of India and Union Bank have a strong nationwide network of more than 5400 offices, which provide distribution outlets with a wide reach. More than 48 million strong banking customer bases of the two banks provides ready cope for cross selling of insurance products. The two banks have strong brand equity, and command high level of trust among their customers and people at large. Additionally the regional rural Banks sponsored by the two banks provide more than 1400 branches to tap the life-insurance business in the rural areas

Dai-ichi Life is a leading player in the Life Insurance Segment in Japan and is one of the top ten Life Insurers in the world and the second largest Life Insurance Company in Japan. Established in 1902, it has more than a century of experience in Life Insurance business.

22. INDIA FIRST LIFE INSURANCE CO. LTD.

India First Life Insurance is the youngest life insurance company in India with a rich legacy of over 360 years of combined service of its promoters -Bank of Baroda, Andhra Bank and Legal & General(UK).Headquartered in Mumbai, with a capital base of Rs. 455 crore it is one of the most capital efficient life insurance companies in the industry today. Bank of Baroda holds a 44 per cent stake in India First, while Andhra Bank and Legal & General hold a 30 per cent and 26 per cent stake respectively. Bank of Baroda is one of the largest public sector banks in the country with an enviable network of over 3050 branches that spreads across the geography of India and over 70 branches across 22 countries globally. This behemoth financial institution is over 100 years old. Andhra Bank has been serving the Indian customer for over 85 years and currently has a network of over 1557 branches. Both the banks are nationalized and provide best in class products and services to every Indian citizen. Legal & General is one of UK‟s leading financial institutions with a heritage of over 150 years. It provides life assurance, pensions, investments and general insurance plans to over 5 crore customers across countries. Legal and General brings rich fund management and insurance experience into India

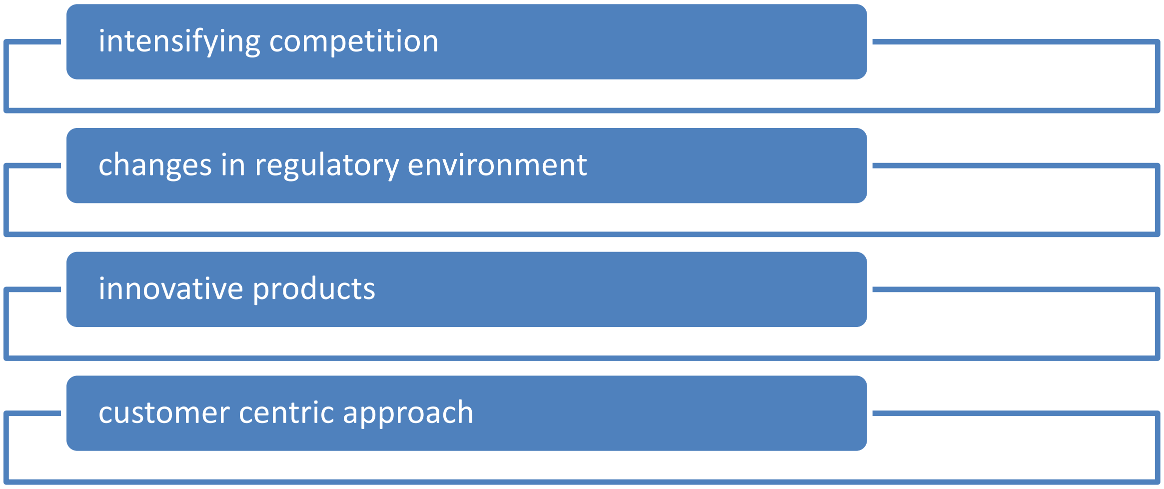
## 3.5 CONSUMER SEGMENTS: NEEDS & SATISFIERS

| SEGMENTS | NEEDS |
|---|---|
| Low Income Group | Risk Cover |
| | Generic Advise |
| | Low Premium/Lakh SA |
| | Long Term Guarantee |
| Mass Affluent | Long Term Wealth Creation |
| | Good Advise - Selection |
| | Ease of Purchase |
| | Standard Products |
| | Good Bonus |
| Affluent + | Market Linked Returns |
| | Ability to Tailor Maket |
| | Recommendation |
| | Advise – Financial Planning |
| | Low Charge (NPV) |

Table 6: Consumer segments: need and satisfiers

## 3.6 INDUSTRY POTENTIAL – GROWTH EXPECTED

The Indian insurance industry has undergone transformational changes since 2000 when the industry was liberalised. With a one-player market to 24 in 13 years, the industry has witnessed phases of rapid growth along with extent of growth moderation and intensifying competition.



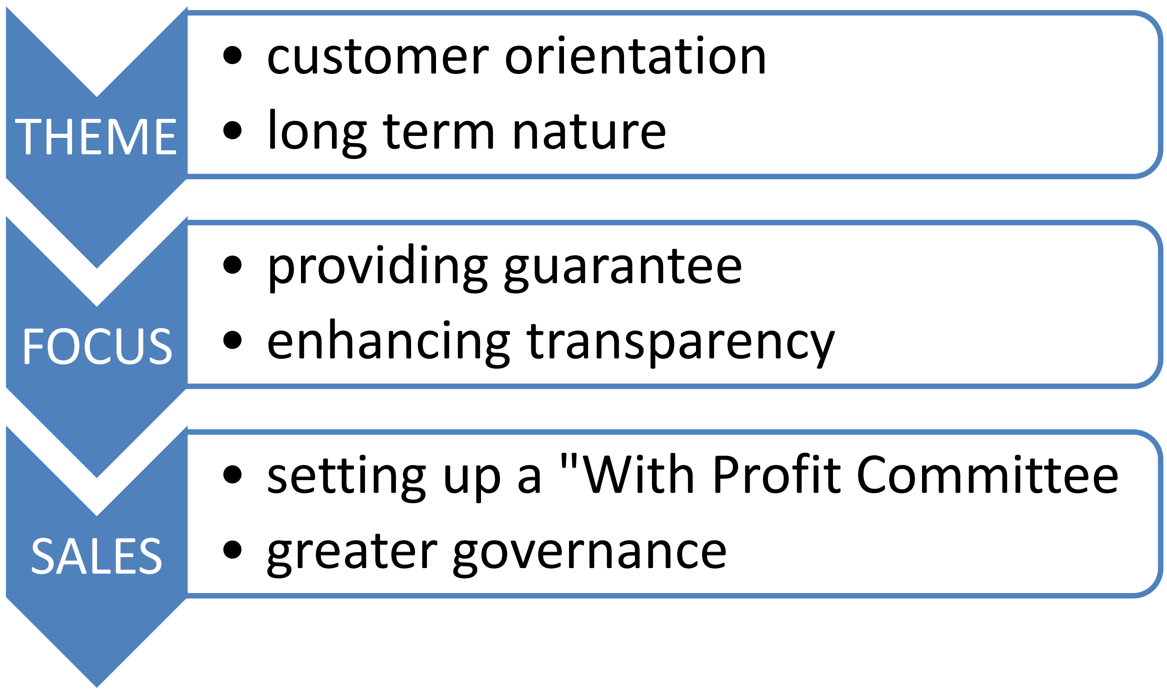

There have also been a number of product and operational innovations necessitated by consumer need and increased competition among the players. Changes in the regulatory environment also had a path-breaking impact on the development of the industry. While the insurance industry still struggles to move out of the shadows cast by the challenges posed by economic uncertainties of the last few years, the strong fundamentals of the industry augur well for a roadmap to be drawn for sustainable long-term growth.

The decade 2001-10 was characterized by a period of high growth (compound annual growth rate of 31 percent in new business premium) and a flat growth (CAGR of around two percent in new business premium between 2010-12), according to KPMG.

There was exponential growth in the first decade of insurance industry liberalization. Backed by innovative products and aggressive expansion of distribution, the life insurance industry grew at jet speed. However, this frenzied growth also brought in its wake issues related to product design, market conduct, complaints of management and the necessity to make course correction for the long term health of the industry.

Regulatory changes were introduced during the past two years and life insurance companies adopted many new customer-centric practices in this period. Product-related changes, first in ULIPs (Unit Linked Insurance Plans) in September 2011 and now in traditional products, will have the biggest impact on the industry.

**NEW PRODUCT GUIDELINES**




The new guidelines for both linked and non-linked products will now come into force from the beginning of year 2014, an extension of three months from earlier specified date. This additional period will ensure that life insurers enter the crucial quarter of Jan-March with a full bouquet of products and the sellers are well trained in the nuances of all these new products.

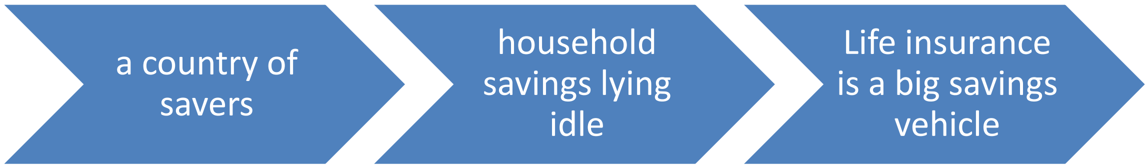
These product guidelines are in line with the IRDA's regulatory theme of customer orientation and long-term nature of the life insurance business. The guidelines follow two overarching themes of providing Guarantee and enhancing Transparency. The major changes introduced include - Higher Death Benefit, Guaranteed Surrender Value and mandatory Benefit Illustration for all life insurance products.

The changes related to death benefit and surrender value may marginally reduce the customers' overall maturity benefit, i.e., policy IRR, especially at higher ages but will ensure that life insurance serves the purpose of providing life cover which no other financial instrument offers.

All ULIPs are currently sold mandatorily with a personalised Benefit Illustration. This requirement is now being extended to other product forms. The new guidelines have also provided for setting up a "With Profit Committee" at the board level.

While personalized benefit illustration will provide for greater transparency in the pre-sales discussion, the With Profit Committee is likely to lead to greater governance in the administration of Participating policies. Premium paying term linked distributors' commission will promote the long-term nature of insurance products.

**FUTURE LOOKS GOOD**




India continues to be a country of savers though we have witnessed a decline in the household savings rate in the past couple of years. In India, the problem lies in household savings lying idle or getting invested in saving instruments that do not help them achieve their life stage goals. There is a worrying trend of larger portion of household savings getting into non-productive physical assets such as real estate and gold.

But even then, the future looks interesting for the life insurance industry with several changes in regulatory framework which will lead to further change in the way the industry conducts its business and engages with its customers. World over it has been observed that the life insurance industry does behave in a counter cyclical manner in many cases, e.g., in a situation where the economic growth is slowing down, due to other factors such as high current account and fiscal deficits, currency depreciation, high interest rates, savings rate will continue to be high, leading to higher demand for life insurance.

Life insurance is a big savings vehicle along with banking in such uncertain economic environment and so we expect the industry to fare reasonably well. Demographic factors such as growing middle class, young insurable population and growing awareness of the need for protection and retirement planning will also support the growth of Indian life insurance.
For life insurance, it is time to re-commit itself to customer-centric behaviour, product solutions based on consumer needs, ethical market conduct, transparency and governance. The growth will be the natural outcome for now and years to come.

# CHAPTER 4

# IRDA


4.1 IRDA


4.2 DUTIES, POWERS AND FUNCTIONS OF IRDA


4.3 IRDA CIRCULAR

## 4.1 INSURANCE REGULATORY DEVELOPMENT AUTHORITY

We regulate the Indian insurance industry to protect the interests of the policyholders and work for the orderly growth of the industry.

**Background**

- 1991: Government of India begins the economic reforms programme and financial sector reforms
- 1993: Committee on Reforms in the Insurance Sector, headed by Mr. R. N. Malhotra, (Retired Governor, Reserve Bank of India) set up to recommend reforms.
- 1994: The Malhotra Committee recommends certain reforms having studied the sector and hearing out the stakeholders
- Some recommended reforms
    - Private sector companies should be allowed to promote insurance companies
    - Foreign promoters should also be allowed
    - Government to vest its regulatory powers on an independent regulatory body answerable to Parliament

**Birth of IRDA**

- Insurance Regulatory and Development Authority (IRDA) set up as autonomous body under the IRDA Act, 1999
- IRDA's Mission: To protect the interests of policyholders, to regulate, promote and ensure orderly growth of the insurance industry and for matters connected therewith or incidental thereto.

**IRDA's Activities**

- Frames regulations for insurance industry in terms of Section 114A of the Insurance Act 1938
- From the year 2000 has registered new insurance companies in accordance with regulations
- Monitors insurance sector activities for healthy development of the industry and protection of policyholders' interests

Reforms in the insurance sector were initiated with the passage of the IRDA bill in the Parliament in December 1999. The IRDA since its incorporation as a statutory body in April 2000 has fastidiously stuck to its schedule of framing regulations & registering the private sector insurance companies.

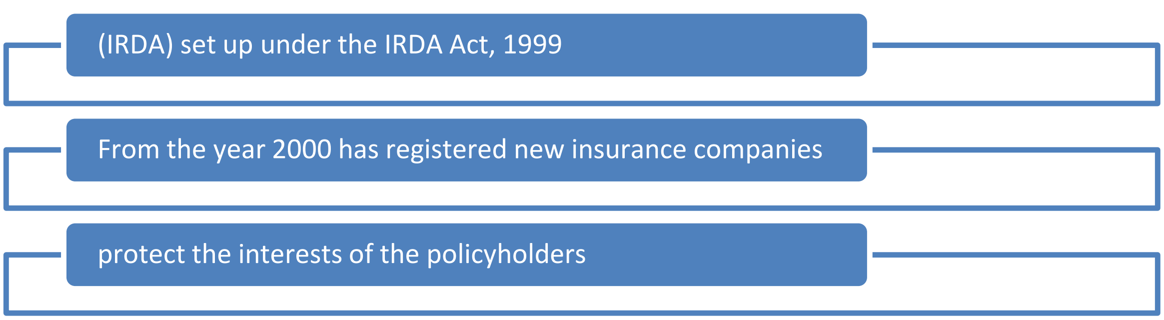
The other decisions taken simultaneously to provide the supporting systems to the insurance sector and in particular the life insurance companies was the launch of the IRDA's on line service for issue and renewal of license to agents. The approval of institutions for imparting training to agents has also insured that the insurance companies would have trained work force of insurance agents in place to sell their products, which are expected to be introduced by early next year.

Since being set up as independent Statutory body the IRDA has put in a frame work of globally compatible regulations in the private sector 12 life insurance and 6 general insurance companies have been registered.

**IRDA's Mission**

Insurance Regulatory and Development Authority (IRDA) Act, 1999 spells out the Mission of IRDA as:

"... to protect the interests of the policyholders, to regulate, promote and ensure orderly growth of the insurance industry and for matters connected therewith or incidental thereto......"




## 4.2 DUTIES, POWERS AND FUNCTIONS OF IRDA

Section 14 of IRDA Act, 1999 lays down the duties, powers and functions of IRDA….

(1) Subject to the provisions of this Act and any other law for the time being in force, the Authority shall have the duty to regulate, promote and ensure orderly growth of the insurance business and re-insurance business.

(2) Without prejudice to the generality of the provisions contained in sub-section (1), the powers and functions of the Authority shall include, -

a) issue to the applicant a certificate of registration, renew, modify, withdraw, suspend or cancel such registration;
b) protection of the interests of the policy holders in matters concerning assigning of policy, nomination by policy holders, insurable interest, settlement of insurance claim, surrender value of policy and other terms and conditions of contracts of insurance;
c) specifying requisite qualifications, code of conduct and practical training for intermediary or insurance intermediaries and agents;
d) specifying the code of conduct for surveyors and loss assessors;
e) promoting efficiency in the conduct of insurance business;
f) promoting and regulating professional organisations connected with the insurance and re-insurance business;
g) levying fees and other charges for carrying out the purposes of this Act;
h) calling for information from, undertaking inspection of, conducting enquiries and investigations including audit of the insurers, intermediaries, insurance intermediaries and other organisations connected with the insurance business;
i) control and regulation of the rates, advantages, terms and conditions that may be offered by insurers in respect of general insurance business not so controlled and regulated by the Tariff Advisory Committee under section 64U of the Insurance Act, 1938 (4 of 1938);
j) specifying the form and manner in which books of account shall be maintained and statement of accounts shall be rendered by insurers and other insurance intermediaries;
k) regulating investment of funds by insurance companies;
l) regulating maintenance of margin of solvency;
m) adjudication of disputes between insurers and intermediaries or insurance intermediaries;
n) supervising the functioning of the Tariff Advisory Committee;
o) specifying the percentage of premium income of the insurer to finance schemes for promoting and regulating professional organisations referred to in clause (f);
p) specifying the percentage of life insurance business and general insurance business to be undertaken by the insurer in the rural or social sector; and
q) exercising such other powers as may be prescribed

## 4.3 IRDA CIRCULAR

Every insurers file with Authority new insurance products and modifications to existing insurance products as required by the ‘file & use’ circular no. IRDA/Cir/010/2003 dated 27 March, 2006, and subsequent circulars on the same.

Whenever, an insurance products is cleared, every insurer should market the product strictly in accordance with the terms and conditions and other features of the product as cleared by the Authority. In the “file & use”, papers submitted to IRDA, insurer mention a range within which the premium rates would vary depending on unfavourable risk factors.

It is believed that companies quote the rates strictly within the range filed with the IRDA and the variations within the range are as per judgement of underwriters, also any advice given by the appointed actuary. It should be ensured that no premium quotation is given which is outside the range filed with IRDA and a rate which the underwriter and appointed actuary did not approve.

It has come to the notice of the authority, however, that some of the insurers:

(i) Offer premium rates outside the range filed with IRDA
(ii) offer discounts in premiums not specified in the filing
(iii) offer discount in the premium without specified approval for the same from the underwriter and appointed actuary
(iv) Offer enhanced benefits on the products without charging any premiums.

This is unhealthy practice, which besides attracting regulatory penal action, will impact the financials of the insurer, ultimately affecting the interest of the policyholders and shareholders as well. Such practices should be stopped forthwith. Any deviation from the instructions will attract penal action.

- There are well-known factors that have a significant effect on life expectancy, such as age, gender, health of the individual and other habits like smoking. Accordingly, healthy persons who are the same age and gender and who do not smoke are placed in the same underwriting class and charged the same ordinal rate for life insurance. Smokers are placed in different classes and charged the same ordinal rate for life insurance. Smokers are placed in different class and charged higher rates with loading. Thus, an actuary can reasonably estimate the average age of death. For example, for a group of 25 year old males, who do not smoke.
- Baseline indicators rely on identified risk factors within a group or class of policyholders that have similar characteristics such as age, sex and line of work. These indicators provide the starting points or baseline rates, which are used to calculate a premium rate for individual policyholders.
- Mortality tables are used that tabulate number of deaths for each age, which includes a population of many people.
- Life insurance policies can be purchased with a single premium or with annual, semi-annual.
- Life insurance policies can be purchased with a single premium or with annual, semi-annual, quarterly or monthly premiums.
- The net single premium is simply the present value of the death benefit. The net single premium is less than the death benefit because interest can be earned on the premium until the death benefit is paid.
- Although most policies are not purchased with a single premium, the net single premium forms the foundation for the calculation of all life insurance premiums. The simplest case is, to cover the death claim, but does not cover expenses or profit. Although most people do not pay single premium because of the cost, all life insurance premiums are based on it.
- Annual level premiums can easily be calculated from the net single premium.
- The Gross premium includes the premium to cover the death claim plus all expenses, areserve for contingencies and profit.

## RISK GOVERNANCE AND OVERSIGHT FRAMEWORK

Risk management oversight is having full visibility of the issues and riska facing the business and reviewing the appropriateness of the actions being taken to manage them.
The Board has adopted the group risk committee structure as one of the mechanisms that helps to ensure the Board has the appropriate level of risk management oversight and governance across the company.
The structure should enable the operation of effective governance across the group, the regions and business units. Committees reinforce the completeness of risk coverage between the ALCO and the ORC (operational risk committee) and down through their delegated sub-committees.

PRINCIPLES OF EFFECTIVE OVERSIGHT

Effective risk management oversight relies on :

- Management oversight of risk prior to board oversight
- Clear distinction and separation between 1$^{st}$, 2$^{nd}$ and 3$^{rd}$ line risk management responsibilities
- Clear accountability for coverage of all risk categories and associated group policies
- Clarity in committee purpose, responsibilities and authority
- Effective and appropriate use of senior management time

BOARD OVERSIGHT

The board will look for assurance to demonstrate:

- Appropriate systems and controls for risk management
- Sound operation of governance and internal controls
- The flow of timely management information in order to discharge oversight duties effectively

To achieve these aims the Board has:

- Delegated authority of risk oversight from the board to CEO and executive committee and
- Provide challenge to the executive about the operation of risk management, while
- Maintain non- executive independence

MANAGEMENT OVERSIGHT

Management will facilitate risk management oversight by providing:

- Management informations on the risks faced by regions and individual business units
- An overall perspective on consolated group risk

- Evidence to show adherence to defined risk appetite by regions or business unit

WHY RISK MANAGEMENT COMMITTEES ARE IMPORTANT

The board has adopted a risk based approach to establishing a system of internal controls and uses the committee structure to review its overalleffectiveness.
Committees provide the board with assurance that all major risk to which the group is exposed are adequately identified, assessed, monitored and controlled. They enable significant movements outside risk appetite to be escalated and allow for the monitoring of the corrective action being taken.

HOW DO RISK MANAGEMENT COMMITTEES WORK

Committees provide independent challenges through oversight by bringing together the different knowledge, perspectives and experiences of its members.
The individuals who perform roles within the governance framework are a key element for its success. The correct blend of individuals is essential to ensure that a committee can discharge its duties effectively. Each committee member should be present a valuable contribution to the committee.
Although individual contributions are made, committees operate on the basis of collective responsibility, this should allow members to express their views freely in discussion, while maintaining a united front once agreement has been reached. Agreements reached in committee sessions are binding on all members.

TERMS OF REFERENCE OF A RISK COMMITTEE

In this section we will look at a typical terms of reference (ToR) in order to better understand the duties of a risk committee.
The risk committee is established by the executive committee to oversee the company's aggregate risk exposure.
The risk committee will review and monitor the management of financial and operational risks to assess whether the risk profile of the company is within appetite.
The committee will review and monitor risk appetite related to its risks and will compare the regional aggregate risk profile, both current and emerging, against risk appetite.
Further, the committee will review and monitor the implementation and effective adherence to group risk management policies under its oversight.

SCOPE OF COMMITTEE OVERSIGHT

1. RISK POLICY SCOPE

The activities of the risk committee focus on the implementation and management of all group risk management policies as covered by its sub- committees. This include, but is not limited to the Asset Liability committee, operational risk committee.

2. Scope of operations

As a governance committee, the activities of the risk committee are applicable within all of its relevant:

- Markets and operations
- Legal entities
- Joint ventures
- The risk committee will consider risks assumed by entities that the company does not have management control

3. Committee authority

- The risk committee has authority from the executive committee to exercise oversight of all markets and operations within the regions and the corresponding legal entities.
- The committee, in liaison with regional policy owners, has authority to request and receive the type of management information required and any further evidence to support its risk management oversight activities.

4. Committee accountability

- The committees is collectively accountable to the executive committee, under the leadership of the chair, for discharging its duties and responsibilities in an appropriate manner as set out in this document.
- The risk committee is also accountable to the company board.

5. Committee responsibilities

The responsibilities of the committee may be delegated, by resolution of the committee unless otherwise reserved to, or determined by the executive committee.

As a primary responisbilty, the committee is collectively responsible for performing oversight over the risk management activities, in respect of the risks inherent in the policies under its oversight, in such a manner that:

- Key risks significant to the achievement of the company’s business objectives are identified, assessed and managed
- Mitigating actions are taken to bring significant risks within appetite

In order to execute its oversight duties, the risk committee will make recommendations, in relation to the management of risks within the company for further consideration and review. The committee will track progress against any recommendations.

Specific responsibilities will be to:

**Review aggregate risk profile against appetite**

- Review and assess the appropriateness of the company’s risk profile
- Review and assess the appropriateness of the drivers and measures for setting risk appetite for key risks

- Review and monitor significant risk exposure, including risks and issues reported through its sub-committes and assess whether risks are consistent with the regions appetite.

**Recommend aggregate Risk Appetite**

- Recommend aggregate risk appetite to the executive committee annually or more frequently if required.

**Assess whether mitigating actions are place in the event of a policy breach or an activity taking a market or operation significantly out of appetite**

- Undertake a quarterly review of the company's emerging financial and operational risks and changes to the region's aggregate risk profile against appetite
- Oversee aggregate financial and operational risk exposures within appetite and
    1. Ensure the operation of minimum standards of controls that are proportionate to managing financial and operational risks associated with the region's operations
    2. Ensure appropriate review of waiverand exception applications to group risk policy
    3. Consult with the relevant regional policy owner on matters related to the content, applicability, implementation, adherence and enforecement of a group risk policy
- Assess and implement strategies that improve the region's risk profile, at an appropriate cost and review how this is monitored in practice to ensure the operational and financial risk position remains within the region's aggregate risk appetite

**Notify the executive committee of any breaches or events which have taken the region significantly out of risk appetite and the actions in place to return within appetite**

- Notify and escalate to the executive committee and relevant group risk committee as appropriate
- Any actual movement outside of risk appetite or control deficiencies as outlined in the risk policies under the remit of risk committee, occurring which may require changes in local plans or regional intervention

# CHAPTER 5
# RISK
# MANAGEMENT

- 5. 1 RISK MANAGEMENT
- 5.2 RISK MANAGEMENT PROCESS
- 5.3 RISK MANAGEMENT PRACTICES IN INDIAN INSURANCE INDUSTRY
- 5.4 MODERN TRENDS OF RISK MANAGEMENT
- 5.5 BACKGROUND
- 5.6 RISK DRIVERS
- 5.7 RISK FRAMEWORK
- 5.8 FRANCHISE V/S POLICYHOLDER INTEREST
- 5.9 CRO ROLE
- 5.10 RISK MANAGEMENT TOOLS
- 5.11 RISK ANALYSIS

## 5. 1 RISK MANAGEMENT

Risk Management is “A systematic way of protecting the concern’s resources and income against losses so that the aims of the business can be achieved without interruption”. Thus risk management stands for prevention and mitigation of harm. In case of insurance, risk management is a tool or technique to design and modify insurance policy to minimize loss.

We are studying risk management for its positive and negative effect. Risk management is important for every organization but it has special importance in an insurance company. It is a process by which an organization identifies the risk attached with their activities and it is done to ensure the sustainability of benefit.

## 5.2 RISK MANAGEMENT PROCESS:

Risk Management proposes a agenda for an organization that allows future activity to take place in a steady and controlled manner.

The benefits of risk management process is :-

- Improving decision making, planning and prioritization
- more efficient use/allocation of capital and resources
- Reducing volatility in the non essential areas of the business
- Protecting and enhancing assets and company image
- Developing and supporting people and the organization’s knowledge base
- Optimizing operational efficiency

The most important step in risk management is risk assessment as mentioned in chapter 2. Risk assessment is a process of estimation including the recognition of the uncertainties, their probability of occurrence and severity of loss.

## 5.3 RISK MANAGEMENT PRACTICES IN INDIAN INSURANCE INDUSTRY

Insurance industry is keen in identifying the risks pertaining to their business. The property, interruption and liability related risks are keenly looked at by the insurers. The risk management services like underwriting inspections or post loss inspections for settlement claims are used by them in India. The support of public sector insurance companies sponsored organizations like Loss Prevention Association of India (LPA), Tariff Advisory Committee (TAC) was availed by the insurers in addition to the in-house services of individual companies.
After the dissolution of Loss prevention Association of India and redefined roles of Tariff Advisory Committee, the companies started looking for specialized risk management services from private sector. The de-tariffication has necessitated the use of risk services in the insurance companies, broking houses as well as single entity farms. In addition to their utility for insurance underwriting business risk management (RM) consultancy services are considered as the value addition to the clients of insurance companies. The advent of multinational companies and realization of importance of RM services by the clients have forced insurance companies to bring the innovative services of RM consultancy to the Indian markets.

**Some Important Risk Assessment tools:**

**Elementary Risk Audits** for identification of good risks from bad risks- usually adopted by the insurance companies for underwriting.
**Safety related Audits** – i.e. Fire Safety Audit, Electrical Safety Audit, Comprehensive Safety Audits etc. has become a tool more than a statutory compliance to the safety improvements for the organization and minimization of hazard level.
**Risk Based Audits** like Machinery Breakdown Risk and ensuing Business interruption Audits have become very important to power plants, Wind energy mill, Cement Industry etc to improve the maintenance practices as well as for Risk financing i.e. insurance coverage, risk pooling etc. Change of climate in India have resulted increased monsoon levels at various locations of the country. The major flood claims experienced in some parts of the country made the insurers and insured's to think about specialized services addressing the risks like Flood Risk Assessment, Fire Protection review, Lightning Protection Review etc which are becoming popular even at the Large size SME's (Small & Medium Scale Enterprises) beside the large enterprises.
**Specific Risk Managements-** Flood Risk Management is being addressed in many industries with or without the support of insurers.

## 5.4 MODERN TRENDS OF RISK MANAGEMENT

The focal point of good risk management is the recognition and dealing of risks. Its purpose is to embrace utmost sustainable value to all the activities of the organization. It organizes the perceptive of the possible benefit and problem of all those factors which can affect the organization. It increases the likelihood of success, and reduces both the likelihood of failure and the uncertainty of attaining the organization's overall objectives.
Recently, terms as Risk Management is heard along with the terms like " Holistic Risk Management" , "Risk Management Models", "Risk Models", " Enterprise Risk management" also the introduction of Chief Risk Officers in various organization in the top management has shown the importance of Risk management among the organizations.

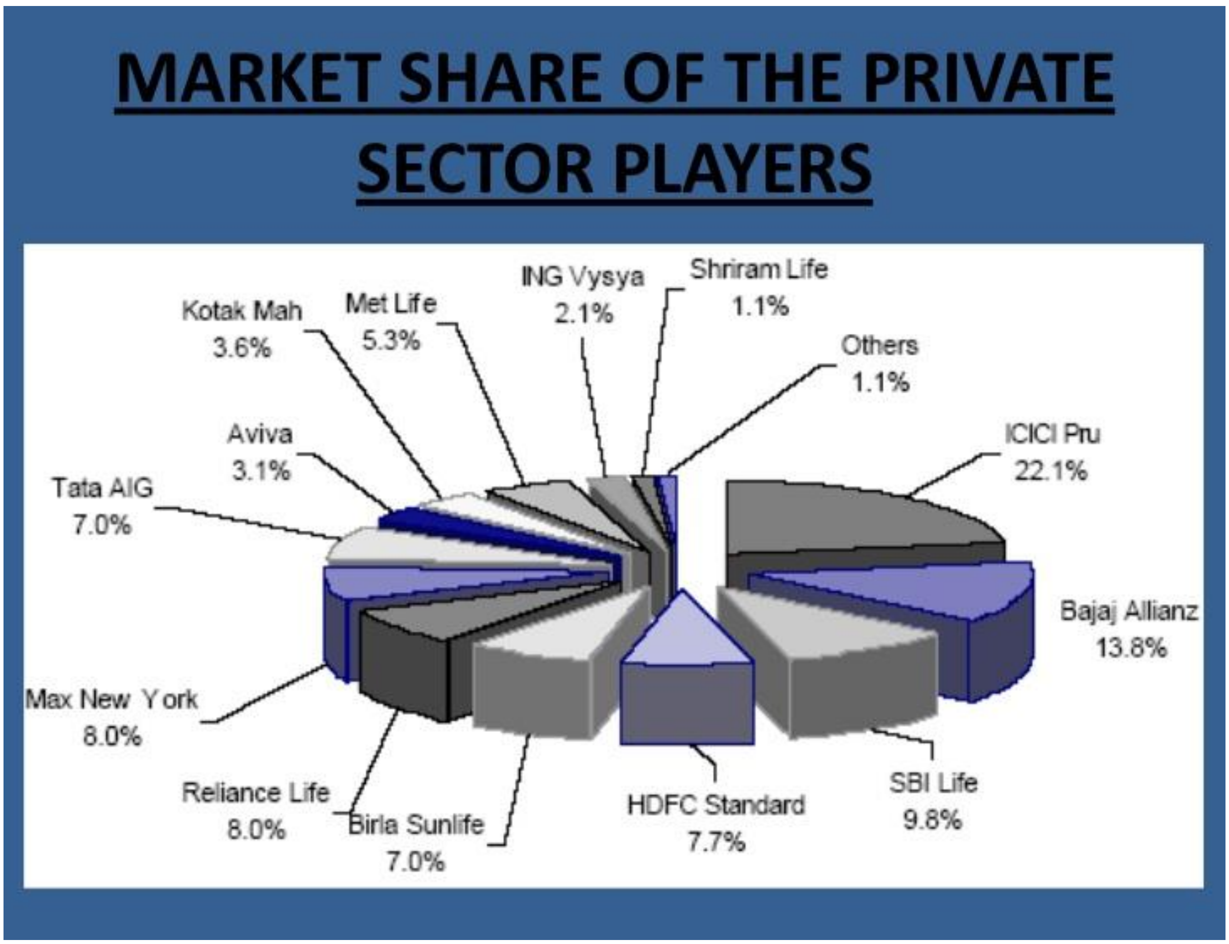
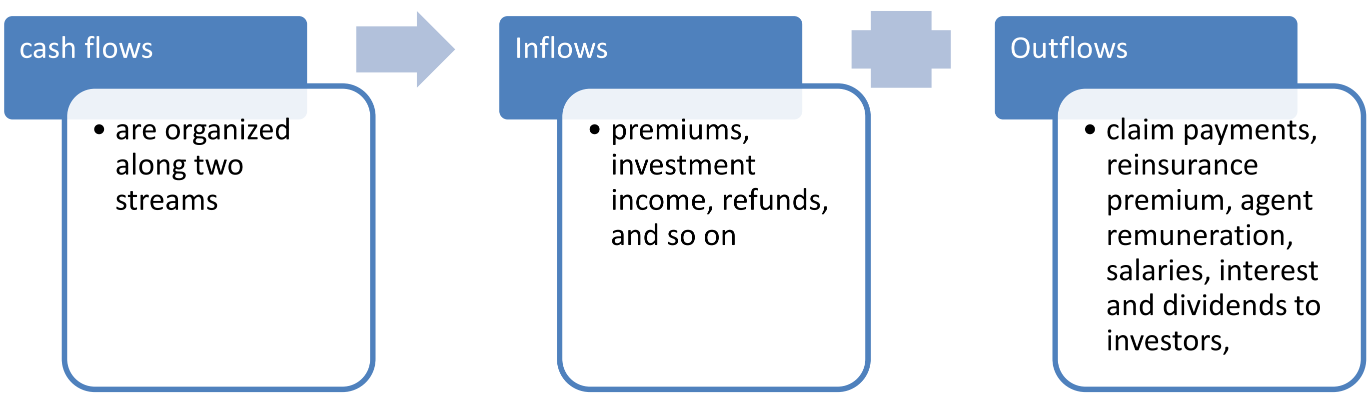



Figure 6: Market share of the private sector players

## 5.5 BACKGROUND

Insurance companies are in the business of taking risks. Globally these companies make policies that treat specific risks, and in many cases, even underwrite alien risks. As a straight outcome, therefore, insurance companies should be excellent at managing their own risks. However the truth is a little far from that! Most insurance companies are very good at assessing insurance risks but are not very good at setting up structures in their own home to manage their own operating and business risks. As a rising necessitate from the credit crisis, IRDA laid down guidelines on corporate governance in 2010, which enclosed a suggestion to the setting up of a mandatory risk management committee (RMC). The RMC has to lay down a risk management strategy across various lines of business, and the operating head must have direct access to the Board. However, IRDA left it to the companies to work out the particulars of how risk management functions were to be properly planned by them given the size, nature, and complexity of their business. But that should in no way damage the operational liberty of the risk management head. Because of this scope, most of the Indian insurance companies have given risk management responsibilities to one of the actuaries, which is not a very strong move toward independence m. Today it is well known that sound management of an insurer, as for other financial sector entities, is dependent on how well the various risks are managed across the organization. In this article I have described how ideally should insurance companies manage their various risks.

## 5.6 RISK DRIVERS




In an insurance company, the cash flows are structured beside two division : a) Inflows—premiums, investment earnings, reimburse, and so on and b) Outflows—claim payments, reinsurance premium, agent compensation, remunerations, interest and dividends to investors, and so forth. Thus, risks could be considered along these two flows.

Additionally, insurance policy depends on models dealing with longevity/mortality/death, morbidity, economic conditions, or market conditions. There is a large risk that any of these assumptions or models could be incorrect, leading to first the pricing risk (that price charged was incorrect) and then the solvency risk—risk that arises from inadequate reserves, and company runs out of capital.

Insurance companies are also exposed to credit risk and market risk associated with their investment portfolio as many insurance companies have large fixed income holdings or equity position. Moreover, the processes, people, and systems of an insurance company are also exposed to risks. These are operational risks and are present throughout the company. Additionally, like other corporations, an insurance company is exposed to other strategic risks, such as liquidity, reputation, legal, business planning, and so on. The time lag between the selling of an insurance coverage and the claim payments can be extremely long. This lag makes insurance a particularly difficult business to manage. Cultural reasons also influence insurance risk management. For example, there is a perception by some insurance managers that the insurance business is strictly an underwriting game. This essentially means that if an insurance company underwrites “the right risks at the right prices,” the other key insurance activities (i.e. investment, claims handling, reinsurance, and so on) “can take care of themselves.” In this situation risk management obviously takes a back seat.

## 5.7 RISK FRAMEWORK

A good risk framework should have a strong governance structure so that the board and the management should know how risks are being managed. To fulfill this objective it is important to appoint a chief risk officer (CRO) for risk management according to the organizational culture. In large companies, it is common to form a separate risk management unit, staffed by a multi-disciplinary team. The work of this team is typically facilitated by designated persons in each of the diverse departments, such as underwriting, actuarial, finance, legal, sales and marketing, policy, claims, IT, and so on. It should be considered by management that all these departments are interrelated but they function independently thus the risk monitoring roles would be independent too. To solve this problem, there are a few prominent frameworks available such as ISO 31000 risk management standard and the COSO ERM. There is another framework used by S&P and A&M Best in their ratings as well. Few of the governance structures are given below.

A CRO should ensure that risk management in the organization is centralized rather than being carried out from silos. For this, it is required that he reports to an important person like the risk & audit committee while managerially he could report to a CxO, such as the chief financial officer (CFO). This gives the CRO the independence and ability to ask tough questions to the top management.

## 5.8 FRANCHISE V/S POLICYHOLDER INTEREST

To appreciate the risk environment better, a CRO should understand the nuances among the policyholders’ interests, franchisee interests, and other stakeholders’ interests. The policyholder interest represents the objectives behind insurance policy purchases by policy buyers; regulators enforce the protection of policyholder’s interest. Franchisee interests are the objectives of the investors or owners who have provided money to capitalize the company and would want the insurance company to grow and make profits. Mostly policyholder and franchisee interests are not in conflict, but there are times when they can diverge. For example when investors are looking to exit the company, the interests definitely could diverge. What is good for the company may not necessarily be good for existing policyholders. A CRO be supposed to realize this difference and should follow risks separately if required.

## 5.9 CRO ROLE

Ideally, as CRO is the main risk facilitator of the company, all risk-related decisions should have his inputs. However, at the very least, a CRO should have the following elements in his role:

**Enterprise risk management (ERM)**

- View of the key risk control programmes

**Ensuring common risk language across organization**

- Managing the risk view through the risk dashboard

**Enterprise Risk Management**

In the course of enterprise risk management (ERM) risks in a company are understood, managed, and used for decision making. In a strong implementation, a CRO becomes the central point of the ERM universe. In terms of ERM role, a CRO then becomes the title-holder of the risk management in the company.

The following are the roles and responsibility of a CRO-

**Ensure that company has the right risk framework**

- There is sufficient management buy-in, and the company has provided resources with the right quality and in the quantity.

**There is a process and rigour to risk assessments**

- All key risks are understood and analysed.

**All risk mitigation strategies and tactics are adequate. Wherever there are gaps, a CRO should ensure that there are action plans to fix them up.**

- Risk factors become central to all key decisions.

**Ensure that the perceptions about risks in the organization are the same and that there is a common risk language in the organization**

- There are sufficient key risk indicators (KRI) to monitor risks regularly.

Market risks, underwriting risks, credit risks, liquidity risks, operational risks, and strategic risks (reputation, compliance/legal, agency, and so on) are the key risks in an insurance company. Each risk should be in general owned by a department, which will then set up actions, put methods in place, and have the right people to manage them. But the CRO should be independently verify and monitor effectiveness of such a set up.

## 5.10 RISK MANAGEMENT TOOLS

| Risk Appetite | Risk Self-Assessments | Risk Registers | Common Risk Language |
|---|---|---|---|
| • Risk appetite is the amount of risk that an organization is prepared to accept, tolerate, or be exposed to at any point in time | • Risk assessment is the basic unit of risk identification across the company and typically should be performed by the departments themselves | • The risk registers are the central repository of risk information. They basically store the risk and control information for a process, department, or entity. | • A common risk language forms an important part of the overall risk management framework. |

**Risk Appetite**

Risk appetite is the amount of risk that an organization is prepared to accept, tolerate, or be exposed to at any point in time. Risk appetite can provide consistency in decision making.. It enables people to take well-calculated risks when opportunities arise that will improve delivery, and conversely, to also identify when a more cautious approach should be taken to mitigate a threat. The CRO should ensure that the risk owners articulate their risk appetite as an effect on capital, so that one can easily understand and monitor.

**Risk Self-Assessments**

Risk assessment is the basic unit of risk identification across the company and typically should be performed by the departments themselves though facilitated and challenged by the risk management people. A risk self-assessment is a very powerful tool and is based on the premise that those who perform or facilitate a process best know their risks. These exercises can uncover emerging risks. A risk assessment exercise done with top management for articulating the major risks to the company is the entity-level risk assessment. Such risk assessments should throw up the strategic risks for the company in the near and long term. Efficacy of entity-level risk assessment lies in seeing whether there was an emerging risk in the past that caught the management unaware. These could be vulnerable points that require a tightening of risk assessment.

Entity-level risk assessments should be matched by risk assessments done at departments and function levels. The structure of such risk assessments should mirror the organizational structures. If every manager in a company, including the CxOs, have their top risks to focus on and if these are linked to performance objectives, the tone and level of risk management in the company would be very robust. Depending on the extent of risk assessments, the process, transactions, and applications could also be covered by risk assessments. Risk assessments should provide inputs for risk registers. Risk registers are the compendium of risks and their controls. A typical risk registers (Figure 5) is a good tool to assess the effectiveness of risk mitigation in the company. The risk registers could be used by auditors to drive their audit planning and extent of their testing. The top-down risks from entity-level risk assessments have some correlation with some of the down-up risks coming from process-level assessments. For example if attrition is one of the top risks, some of its components can come from process-level risks, such as excessive disciplinary action, or high reliance of a process on few skilled staff. For operational risks, the top-down risks can usually be drilled into bottom-up risks.

**Risk Registers**

The risk registers are the central repository of risk information. They basically store the risk and control information for a process, department, or entity. Typically, the risk registers contain the risk description, risk category, risk owner, gross risk measure, [severity (impact) and likelihood before controls], control details, and strength of the controls (self assessed as well as assessed by risk management), net risk measure, [severity (impact) and likelihood after controls], action plans, and deadlines to project target risk as impact and likelihood. Control documentation, including end-to-end process maps, key control sheets, and procedures manuals can be attached to the risk register. Use of colors can provide the visual triggers regarding the statuses – which of the risks need attention. Output from the Register can be used in quantitative risk analysis for reserving purpose, management information in the form of Top risk report and an Internal Audit plan which can be partly driven by the identification of less strong controls within the business.

**Common Risk Language**

A common risk language forms an important part of the overall risk management framework. It enables meaningful comparisons to be drawn between risk information provided by the risk owners, which facilitates an understanding of the risks facing the company. With a common risk language, the management, the risk owners, and interested stakeholders would find it easier to fully understand or effectively communicate the risks that the group faces. The common risk language is expressed through the common risk framework consisting of standard risk categories, consistent risk identification, scoring and prioritization methodologies, and a common risk-recording mechanism.

| Category | Risk (sub-category) | Definition |
|---|---|---|
| ***Credit*** | Counterparty Risk | The risk of guarantors, reinsurers, borrowers and general insurers failing to meet their financial obligations |
| ***Market*** | Equity | The risk of stock price fluctuations |
| | Real Estate | The risk of real estate value fluctuations |
| | Foreign Exchange | The risk of foreign exchange rate fluctuations |
| | Interest Rate | The risk of asset-liability mismatch resulting from interest rate volatility |
| ***Operational*** | Financial Reporting/ Disclosure | The risk of allegedly inaccurate and/or misleading financial statements and/or related disclosures |
| | People | The risk arising from the actions or inaction of the Company's employees |
| | Systems/Processes | The risk of information, communications or computer systems failing and/or human or system error a within certain process or transaction |
| | Legal & Regulatory | The risk arising from inadequate or incorrect knowledge of, and/or non-compliance with, the laws and regulations governing the Company's business operations and contractual agreements |
| | Environmental | The risk of pollution events affecting Company property and/or the property of others |
| | Strategic Risks | The risk arising from choices of strategies, business models or implementation plans |
| ***Insurance*** | Mortality | The risk of over-estimating how long policyholders will live resulting in higher-than-expected claims and benefit payments |
| | Morbidity | The risk of misestimating the number of times a policyholder will be sick or the length of the illness, resulting in higher-than-expected claims and benefit payments |
| | Longevity | The risk of under-estimating how long policyholders will live resulting in higher-than-expected claim and benefit payments |
| | Product Design & Pricing | The risk arising from inappropriate or inadequate product design and pricing, including the risk that the policy is not designed to take into account changes in policyholder behaviour and the external environment may also affect the risk exposure |
| | Underwriting | The risk arising from the underwriting process resulting in the acceptance of undesirable risks |
| | Claims | The risk arising from the claims administration process, including the inappropriate payment of claims, fraud and assertions of bad faith |
| | Property/Casualty | The risk of providing property/casualty insurance coverage to third parties |

Table 7: Risk categories

## 5.11 RISK ANALYSIS

## Steps involved in Risk Analysis

- to identify whether the likelihood of an event occurring is rare, unlikely, a moderate possibility, likely or rare
- to determine whether the potential consequences or impact of the event are insignificant, minor, moderate, major or catastrophic
- Qualitative Risk Analysis
- evalualte the risk
- treat the risk

**STEP 1:** ***ANALYZE THE LIKELIHOOD OF THE RISK***

Guide for Selection of Likelihood

| RATING | DESCRIPTOR | DESCRIPTION | |
|---|---|---|---|
| 1 | Almost certain | Likely to occur >10 times per year | Not unusual to happen |
| 2 | Likely | Likely to occur 1 to 10 times per year | The event has occurred several timers in one's working time in a given work area, and will continue to occur |
| 3 | Moderate | Likely to occur once every 2 to5 years | The event could occur Once in a given work area, and could occur at any time |
| 4 | Unlikely | Likely to occur once every 5 to20 years | The event may not yet Have occurred, but could occur at some time |
| 5 | Rare | Likely to occur <every 20 years | Heard of something like this having happened elsewhere |

Table 8: Likelihood of risk

**STEP 2:** ***ANALYZE THE CONSEQUENCES OF THE RISK***

Guide for Selection of Consequences

| RATING | DESCRIPTOR | DESCRIPTION |
|---|---|---|
| 5 | Catastrophic | • Death through accident or workplace acquired illness<br>• Significant asset destruction or other financial loss greater than$10M<br>• Major national TV/news coverage for several days<br>• Parliamentary intervention eg Royal Commission<br>• long term environmental harm<br>• Total cessation of operations for greater than 23weeks. |
| 4 | Major | • Multiple serious injuries or workplace acquired illness resulting in<br>• hospitalization for more than 4 weeks and/or serious permanent<br>• disability<br>• Loss of asset or other financial loss greaterthan$1Mto $10M<br>• Major national TV/news coverage<br>• Parliamentary inquiry<br>• Significant long term environmental harm<br>• Total cessation of operations for greater than 2 days to 3 weeks |
| 3 | Moderate | • Serious injury or illness resulting in hospitalization for 3days to4<br>• weeks<br>• Loss of asset or other financial loss greater than $50,000 to$1M<br>• Local TV/media exposure<br>• Significant release of pollutants with midterm recovery<br>• Total cessation of operations for less than 2 days |
| 2 | Minor | • Injury or illness resulting in time away from workplace or less than 3<br>• days in hospital<br>• Loss of asset or other financial loss from$5,000 to $50,000<br>• Minor transient environment harm<br>• Minor disruption to services |
| 1 | Insignificant | • No injuries, or minor injury requiring first aid<br>• Minor loss of asset or other financial loss less than $5,000<br>• Brief pollution but no environmental harm<br>• No disruption to services |

Table 9: Consequences of risk

**STEP 3: *QUALITATIVE RISK ANALYSIS***

The table below contains a qualitative risk analysis matrix that may be used to determine the level of risk:

***Qualitative Risk Analysis Matrix – Level of risk***

| Likelihood | RISK | | | | |
|---|---|---|---|---|---|
| | **Insignificant 1** | **Minor 2** | **Moderate 3** | **Major 4** | **Catastrophic 5** |
| **Almost certain** | M | S | S | S | S |
| **Likely** | M | M | S | S | S |
| **Moderate** | L | M | M | S | S |
| **Unlikely** | L | L | M | M | S |
| **Rare** | L | L | L | M | M |

Table 10: Qualitative risk analysis matrix

**Legend:**

| SYMBOL | STANDS FOR | REMARKS |
|---|---|---|
| S | Significant RISK | senior management attention needed |
| M | Moderate RISK | management responsibility must be specified |
| L | Low RISK | manage by routine procedures |

Table 11: Symbols for extent of risk

***ANALYSING THE RISKS***

This step has two objectives-

A) It is used to consider the likelihood (or probability) of an event occurring and to predict the impact that the event would have on the insurance company.
B) To separate the minor acceptable risks from the major risks that needs to be treated. This is done by attaching qualitative values of “almost certain”, “likely”, “possible” “unlikely” or “rare” to the likelihood of an event occurring and “catastrophic”, “major”, “moderate”, “minor” or “insignificant” to the consequences if the event does occur.

**STEP 4: *EVALUATE THE RISK***

The objective of this step is to evaluate the level of risk. This step is important because it provides a guide as to what risks should be addressed and in which order. In doing so, the process also identifies those risks the insurance company can accept and manage with simple procedures. If any risks are identified as unacceptable, than appropriate risk management processes may be required

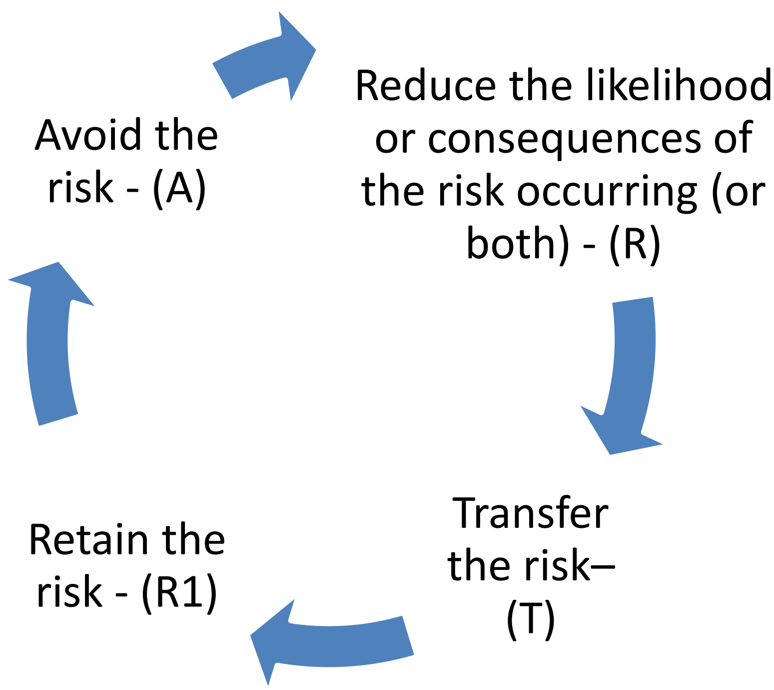
**STEP 5: *TREAT THE RISK***

The objective of this step is to identify and implement options to manage and mitigate risks. The risk evaluation process identifies the level of risk. The objectives of this stage are:

- To identify the range of options for treating risks and assessing these options; and
- Preparing and implementing risk treatment plans.

Apart from the above objectives, this stage also carries a reporting function in the sense that you will have to give consideration to reporting certain risk events to management who will in turn form a judgment as to what risk events (for example, all extreme risks) will be reported to Council.

**The options for risk treatment are:**




**Avoid the risk - (A)**

Decide to

- Not insure the subject that contains an unacceptable risk

- Choose a more acceptable subject to insure which meets the objective and goals of your organization
- Choose a more acceptable alternative methodology or process within the insured which presents less risk

**Reduce the likelihood or consequences of the risk occurring (or both) - (R)**

Any one of several decisions may be chosen:

- Aware the insured about the risk he is exposed to
- Suggest him to make changes in his lifestyle
- Increase the premium charges

**Transfer the risk– (T)**

The risk may be transferred in full or in part, to another party

- Reinsurance

**Retain the risk - (R1)**

Risks may be retained followed risk reduction measures

- If the established risk levels of identified risks are in the 'Low' category, or it is decided that the risk is otherwise acceptable, no risk treatment may be required.
- There may be cases where the risk is such that there is no treatment available.

# CHAPTER 6

# Risk Management and Insurance Planning

**6.1 PROFORMA OF AGENT’S CONFIDENTIAL REPORT**

**6.2 LIFE INSURANCE PRICING ELEMENTS**


**6.3 BASIS OF RATING IN INDIA**

**6.4 CLASS RATING**

**6.5 IMPORTANCE OF UNDERWRITING**

**6.6 BASIC UNDERWRITING PRINCIPLES**


**6.7 MAKING AN UNDERWRITING DECISION**

## 6.1 PROFORMA OF AGENT'S CONFIDENTIAL REPORT

(This proforma is filled by agent along with proposal form of proposer for the purpose of field underwriting)

CONFIDENTIAL REPORT

Proposal No. _________ Branch code: _______

INSTRUCTION FOR FILLING IN THE FORM

1. Before completion of the report, the reporting official should satisfy himself/ herself regarding the identity of the client. He/she should meet the client preferably at the clients residence before completing the report. The reporting official should make independent inquiries about health and habits, occupation, income, social background and the financial position, etc, irrespective of whatever is mentioned in other available documents.
2. State full particulars of the verification made to substantiate the details mentioned in the report. Remarks such as a "as told by the party, life advisor etc" will not be accepted.
3. This report must be completed immediately after the inquireies are made.

Name of the life to be insured: _______________________________________

Name of the proposer: ____________________________________________

Details of all life insurance policies/ proposals of the life to be insured:

| Policy/ Proposal no. | Company name | Sum assured | Acceptance term (at std rates, with extra rates, postponed, declined, not completed) | In force, lapsed (mention year of lapse revival applied for) | Currently applied for (including other companies) |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Objective of taking insurance _________________________________________________

GENERAL INFORMATION ABOUT LIFE

| | |
|---|---|
| 1. By whom were you introduced to the life to be insured? | |
| 2. From how long do you know life to be insured? | |
| 3. Date of meeting the client for insurance purpose? | |
| 4. Does the life to be insured look older than his age? | |
| 5. What is your view about general health of life to be insured after meeting the client? | |
| 6. Did you notice any physical/ mental deformity in life to be insured? | |
| 7. Does your enquiry reveal any past history of illness/ medication/ investigation/ hospitalization, if yes please provide details. | |
| 8. Any other details | |

FINANCIAL DETAILS OF THE PROPOSER, OR LIFE TO BE INSURED (INCOME DETAILS OF THE PROPOSER FOR LAST 2 YEARS)

Tick the document verified

- ITRs
- Form no 16
- P &L
- Balance sheet
- Land ownership documents
- C.A. Certificate
- Other Documents

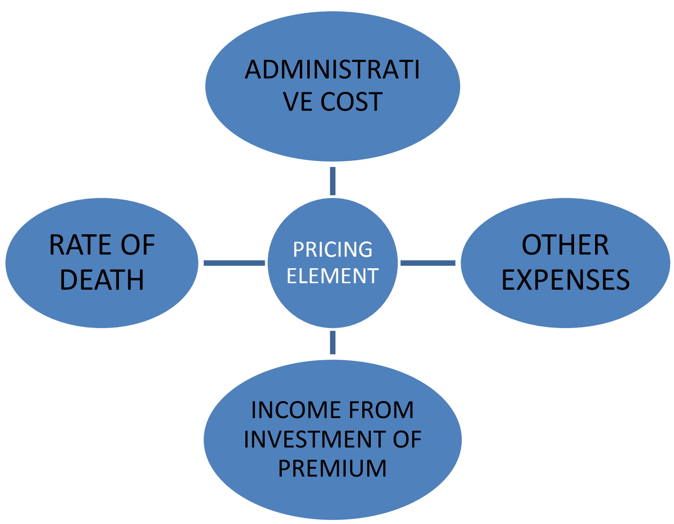
Please give details pertaining to the preceding two latest financial years (pls mention years)

| | YEAR: | YEAR: |
|---|---|---|
| a) Gross annual income | | |
| b) Income, if any, not included in above | | |

| | | |
|---|---|---|
| - Agriculture income | | |
| - Rental income | | |
| - Dividends | | |
| - Interest | | |
| - Others (pls specify) | | |
| c) Long term capital gains | | |
| d) Short term capital gains | | |
| e) Assets | | |
| - Immovable properties | | |
| - Net working capital | | |
| - Investments | | |
| - Others (pls specify) | | |
| f) Liabilities | | |
| - Secured loans/CC/OD | | |
| - Mortgages | | |
| - Unsecured Loans | | |
| - Deposits accepted | | |

Agent ID [Signature of the agent]

## 6.2 LIFE INSURANCE PRICING ELEMENTS



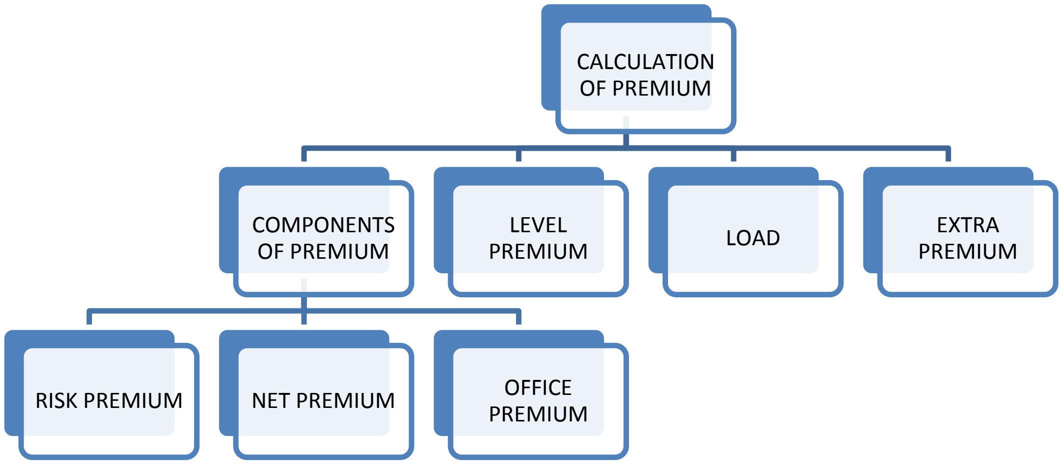
There are three elements of life insurance pricing- administration cost and other expenses of the insurer, income from investment of premium and rate of death of large number of insured persons.

1. ***Administration cost and other expenses of the insurer***: every insurer bears several costs related to the service provided to the insured. The administration cost incurred may depend on frequency of payment of premium and the volume of records kept. For example, if premium is paid annually, cost is lesser as compared to quarterly and half yearly or monthly payments.
2. ***Income from investment of premium***: Premium collected by the insurance company from various policyholders is then invested and the income earned on the same helps the insurance company to bear various expenses incurred vis-à-vis benefits are given to policyholders.
3. ***Rate of death of large number of insured persons***: the mortality rates depend on the age, occupation, lifestyle and medical history of the insured. The premium rates charged are calculated on the basis of rate of deaths of very large number of persons insured, i.e., number of cases from the past experience is taken into consideration before deciding on mortality rate.

## 6.3 BASIS OF RATING IN INDIA

In a contract of insurance, the insurer promises to pay a specified sum of money to the insured in the event of any unfortunate happening which should be unintentional in nature. In order to secure these benefits, the policyholder in return, agrees to pay a fixed sum of money either in installments (monthly/ quarterly/half yearly/annually) or lump sum which is known as ‘premium’. This premium can also be called as cost/price of insurance policy. Any default in paying the premiums can endanger the continuance of policy or it is said ‘the policy has lapsed’ and the further expected benefits may not be available. The consequences of default are specified in the policy conditions.

The calculation of premium involves actuarial and statistical principles. It is a technical and complex process which can be done only by trained professionals known as actuaries. In order to quote the premiums for a particular policy being offered to a prospect, the insurance company makes the tables of premium rates available for the use of agents. Let us understand the rationale behind the premium calculations. The calculations of premium involve the following:




1. Components of premium
    a. Risk premium (mortality)
    b. Net premium (margin of interest)
    c. Office premium (margin of office expenses and exigencies)
2. Level premium
3. Loadings on the premium
4. Extra premium

1. COMPONENTS OF PREMIUM

There are three components of premium, which are as follows

a) Risk premium

Say, for example, there are 1000 persons who are all aged 50 and are healthy. It is expected that on an average, 1% of persons aged 50, or 10 persons may die within one year. If the economic value of the loss suffered by the family of each dying persons is taken to be 20,000/-, the total loss would work out to 2,00,000/-. If each person in the group contributes 200/-, the common fund would be 2,00,000/-. This would be enough to pay 20,000/- to the family of each of the ten persons who die. Thus, the risks are shared by 1000 persons, although 990 of them did not suffer any loss. The figure of 200/- mentioned here would be the cost of covering the risk of death of persons at age of 50 for one year. This cost is for Sum Assured (SA) of 20,000/-. This premium can also be expressed as 10/- per thousand or 1% of SA. Such costs, to meet the risk of death for one year at a particular age, are called a 'risk premium'. It is also referred to as mortality premium or natural premium.

The risk premium is calculated on the basis of an expectation as to how many persons likely to die within a year in an age group. This expectation is calculated by actuaries on the basis of past experiences and made available as mortality table.

MORTALITY TABLE PUBLISHED WITH THE CONCURRENCE OF IRDA VIDE IT'S LETTER DATED 20/02/13

| AGE | MORTALITY RATE | AGE | MORTALITY RATE | AGE | MORTALITY RATE |
|---|---|---|---|---|---|
| 0 | 0.004445 | 42 | 0.002140 | 84 | 0.084645 |
| 1 | 0.003897 | 43 | 0.002350 | 85 | 0.091982 |
| 2 | 0.002935 | 44 | 0.002593 | 86 | 0.099930 |
| 3 | 0.002212 | 45 | 0.002874 | 87 | 0.108540 |
| 4 | 0.001670 | 46 | 0.003197 | 88 | 0.117866 |
| 5 | 0.001265 | 47 | 0.003567 | 89 | 0.127963 |
| 6 | 0.000964 | 48 | 0.003983 | 90 | 0.138895 |
| 7 | 0.000744 | 49 | 0.004444 | 91 | 0.150727 |
| 8 | 0.000590 | 50 | 0.004946 | 92 | 0.163532 |
| 9 | 0.000492 | 51 | 0.005483 | 93 | 0.177387 |
| 10 | 0.000440 | 52 | 0.006051 | 94 | 0.192374 |
| 11 | 0.000428 | 53 | 0.006643 | 95 | 0.208585 |
| 12 | 0.000448 | 54 | 0.007256 | 96 | 0.226114 |
| 13 | 0.000491 | 55 | 0.007888 | 97 | 0.245067 |
| 14 | 0.000549 | 56 | 0.008543 | 98 | 0.265555 |
| 15 | 0.000614 | 57 | 0.009225 | 99 | 0.287699 |
| 16 | 0.000680 | 58 | 0.009944 | 100 | 0.311628 |
| 17 | 0.000743 | 59 | 0.010709 | 101 | 0.337482 |
| 18 | 0.000800 | 60 | 0.011534 | 102 | 0.365411 |
| 19 | 0.000848 | 61 | 0.012431 | 103 | 0.395577 |
| 20 | 0.000888 | 62 | 0.013414 | 104 | 0.428153 |
| 21 | 0.000919 | 63 | 0.014497 | 105 | 0.463327 |
| 22 | 0.000943 | 64 | 0.015691 | 106 | 0.501298 |
| 23 | 0.000961 | 65 | 0.017009 | 107 | 0.542284 |
| 24 | 0.000974 | 66 | 0.018462 | 108 | 0.586516 |
| 25 | 0.000984 | 67 | 0.020061 | 109 | 0.634244 |
| 26 | 0.000994 | 68 | 0.021819 | 110 | 0.685737 |
| 27 | 0.001017 | 69 | 0.023746 | 111 | 0.741283 |
| 28 | 0.01017 | 70 | 0.025855 | 112 | 0.801191 |
| 29 | 0.001034 | 71 | 0.028159 | 113 | 0.865795 |
| 30 | 0.001056 | 72 | 0.030673 | 114 | 0.935453 |
| 31 | 0.001084 | 73 | 0.033412 | 115 | 0.985796 |
| 32 | 0.001119 | 74 | 0.036394 | | |
| 33 | 0.001164 | 75 | 0.039637 | | |
| 34 | 0.001218 | 76 | 0.046991 | | |
| 35 | 0.001282 | 77 | 0.051149 | | |
| 36 | 0.001358 | 78 | 0.051149 | | |
| 37 | 0.001447 | 79 | 0.055662 | | |
| 38 | 0.001549 | 80 | 0.060558 | | |
| 39 | 0.001667 | 81 | 0.065870 | | |
| 40 | 0.001803 | 82 | 0.071630 | | |
| 41 | 0.001959 | 83 | 0.077876 | | |

These tables are prepared for use of insurance offices which contain data relating to such probabilities. If the mortality table shows that $x$ % is the probability of death within a year for any age, (100-*x*) % persons are likely to be living at the end of one year, when they would all be one year older. This is a probability not a certainty. It does not mean that x% will die. It means that over a long period of time, if larger number of people at that age are observed, nearly x % may be dying within a year. Mortality studies, reflecting the experience of Indians, are made by mortality and morbidity Investigation Bureau (MMIB), set up jointly by the Life Insurance Council and the actuarial society of India to help insurers.

The risk premium would be adequate to pay claims that would arise if all the policies provided benefits only in the event of death within one year. Such policies are called *term insurance policies*. The premium will not be adequate for policies which provide also for amounts payable on the persons surviving for some years. Policies providing benefits on survival are called *endowment policies*. The actual premium collected in such policies would have to be more than risk premium. Here also, the mortality table would be used to estimate the number of persons who may survive the specified period or terms.

b) net premium

The premiums collected by insurer every year are not utilized for payment of claims. This is so far many reasons. One is that the real experience may be different from probabilities indicated by the mortality tables. Second, the portion of the premium is meant to meet survival benefits and must be kept aside. The balance premium kept aside, after various outgoes will be invested and will earn some interest. To the extent of these earning, the premium charged can be reduced. The premium worked out after taking into account the interest likely to be earned, is called net premium. They are also referred as pure premium.

c) office premium

The premium figures arrived at after loading net premium is called the office premium. The premium figures printed in the promotional literature and brochures are office premiums. They are also referred to as tabular premiums.

The actual premium to be charged in any one case would require further adjustments, depending on the practice of the insurer. For example, the administrative costs are more if the premium is paid every quarter or month instead of once in a year. The number of renewal notices and receipts to be insured and consequential accounting entries would vary according to the mode. If the mode is yearly, the probability of default in the subsequent renewal premium to complete the year does not arise. The insurer can utilize this amount for the entire year and earn more interest than if the premiums were paid in installments. Therefore, the premium rates would have to be slightly increased or decreased depending on the chosen mode of payment.

The increase or decrease may be in percentage terms, like add or subtract 2.5 % or in simple numbers like add or subtract 1/-. Practices of insurer vary. Some may provide for rebate for yearly modes. This depends on how the insurer concerned has worked out the office premiums.

Similarly, there may be adjustments to be made depending on the SA. If the policy is for a small SA, because many expenses like clerical costs, printing of policies, accounting, overheads etc are constant and do not vary according to the SA of the policy. Depending on the manner of the loadings made, insurers will provide rebate for higher SA or extras for small SA.

2. LEVEL PREMIUM

A policy for which the premiums do not change for the entire duration of the policy is called Level Premium. The amount of a level premium is higher than needed for the protection given in the early years of the contract but less than needed for protection in the later years

3. LOADINGS ON THE PREMIUM

In life insurance, the **premium load** is either the percent that is loaded onto or the amount that is added to **premiums** for expenses.

4. EXTRA PREMIUM

It is charged on case to case basis, unique for every policy. This may happen because of grant of some extra benefit in addition to the basic benefits under the plan like accident benefit or premium waiver benefit. Extra premium may also become chargeable because of decisions relating to the extent of risk in any particular case. If the risk of the person to be insured is assessed as more than normal, because of health or because of occupation or habits, insurer may charge extra premiums. These are usually stated as say, 2/- per thousand and will be added to the premium otherwise chargeable.

## 6.4 RATE MAKING FOR LIFE INSURANCE

Rate making for life insurance is much simpler, since there are mortality tables that tabulate the number of deaths for each age, which includes a population of many people. Age is the most important factor in determining life expectancy, but there are other well known factors that have a significant effect, such as the sex of the individual and smoking. Thus, an actuary can reasonably estimate the average age of death for a group of 25-year old males, who don't smoke.

The simplest case is determining the net single premium, which is the premium that would need to be charged to cover the death claim, but does not cover expenses or profit. Although most people don't pay a single premium because of the cost, all life insurance premiums are based on it. Annual level premiums can easily be calculated from the net single premium. The net single premium is simply the present value of the death benefit. The net single premium is less than the death benefit because interest can be earned on the premium until the death benefit is paid. The gross premium for life insurance includes the premium to cover the death claim plus all expenses, a reserve for contingencies, and profit.

## 6.5 IMPORTANCE OF UNDERWRITING

The underwriting process is very important in any insurance office, life or non-life. If the risk is wrongly assessed, the premium charged from the applicant would not be appropriate. A lower premium affects the solvency of the firm. On the other hand, a decision to charge a premium higher than necessary would not be fair to the proposer because of the principle of utmost good faith. At the same time, the cost of additional risk of the applicant would have to be borne by the rest of the policyholders (if not covered), will be again a biased or unjust option. Therefore, underwriting has repercussions of its fair attitude on the insurer and also on the policyholders, either individually or collectively.

It he underwriter finds that the individual proposed to be insured has no adverse features affecting mortality or other factors relating to insurability, the risk is considered as normal or standard or first class life and the premium charged would be as per tabular rates. Otherwise, the terms of acceptance of the proposal would be different. In some cases, the insurer may refuse to provide insurance. The word decline is used when the underwriter decides to refuse insurance.

## 6.6 BASIC UNDERWRITING PRINCIPLES

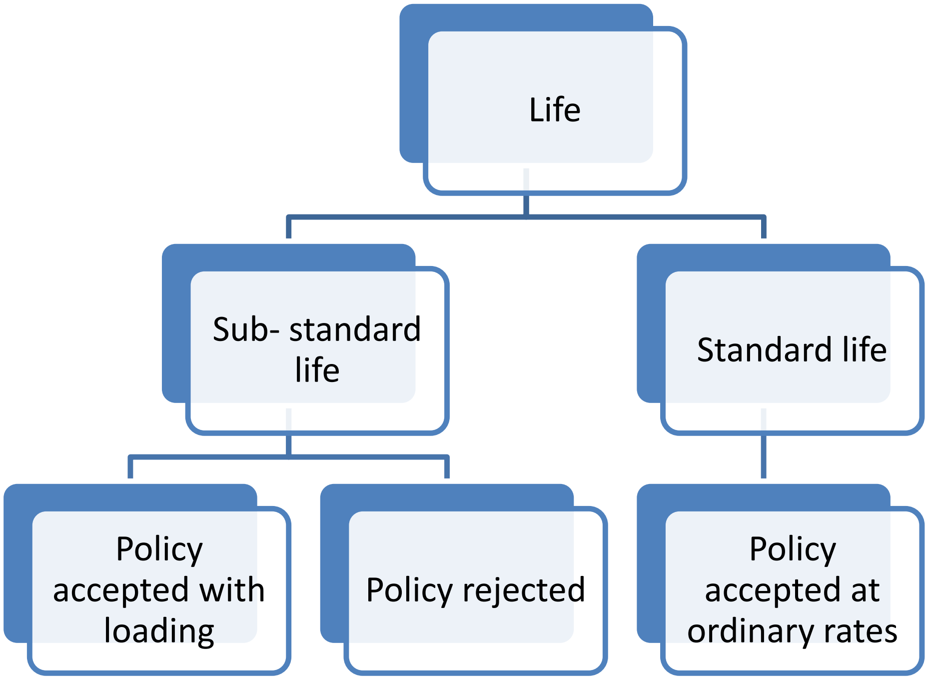
As noted earlier, the goal of underwriting is to produce a profitable volume of business. To achieve this goal, certain underwriting principles are pursued. Three important principles are as follows:

- Selection of insured according to the company’s underwriting standards
- Proper balance within each rate classification
- Equity among policy owners

## 6.7 MAKING AN UNDERWRITING DECISION

After the underwriter evaluates the information, an underwriting decision must be made. There are three basic underwriting decisions with respect to an initial application for insurance:

- Accept the application
- Accept the application subject to certain restrictions or modifications
- Reject the application




OPTION 1: UNDERWRITER ACCEPTS THE APPLICATION

The underwriter recommends that the policy be issued as proposal at ordinary rates; the life is assessed as standard and tabular rates can be offered.

OPTION 2: ACCEPT THE APPLICATION SUBJECT TO CERTAIN RESTRICTIONS

The underwriter accepts the application subject to certain restrictions or modifications or extra premium on per thousand SA. This means that the premium to be charged is increased by the amount of extra, than specified, depending on the risk of the person to be insured. If he/she is assessed in risky category, which is more than normal, either because of health, occupation or unhealthy habits, insurer may charge extra premiums.

Accept the application with a lien means that the life is not assessed as standard but the risk is expected to wear off.

Accept the application with clause means that condition of acceptance of application excluding specific risks.

Accept with modified terms means that the insurance would not be given for the particular plan or the term proposed. A different plan or different term or reduced SA or a combination of these, would be suggested as an alternative. The risk is more in a whole life plan than in an endowment plan. The risk is an ordinary endowment plan is more than in a double endowment plan or an endowment plan with limited premiums. A shorter term has less risk than a longer one.

OPTION 3: DECLINE

It means that the risk is too heavy to be insured.

***Notes:-***

Underwriting pattern is reviewed from time to time/ periodically. For example, earlier tuberculosis was non-curable and the policy was declined in this case, but today, AIDS has taken its place.

The regulation issued by the IRDA requires that the decision on a proposal must be conveyed to the proposer within 15 days.

# CHAPTER 7

# Data and Statistics

## Chittaurgarh (Chittorgarh) District : Census 2011 data

An official Census 2011 detail of Chittaurgarh (Chittorgarh), a district of Rajasthan has been released by Directorate of Census Operations in Rajasthan.

Population of Chittorgarh (2011)

- Total 1,544,392
- Rank 121
- Density 55,000/km2 (140,000/sq mi)

In 2011, Chittaurgarh had population of 1,544,338 of which male and female were 783,171 and 761,167 respectively. In 2001 census, Chittaurgarh had a population of 1,330,360 of which males were 676,565 and remaining 653,795 were females. Chittaurgarh District population constituted 2.25 percent of total Maharashtra population. In 2001 census, this figure for Chittaurgarh District was at 2.35 percent of Maharashtra population.

There was change of 16.08 percent in the population compared to population as per 2001. In the previous census of India 2001, Chittaurgarh District recorded increase of 19.96 percent to its population compared to 1991.

### Demographics

According to the 2011 census Chittorgarh district has a population of 1,544,392, roughly equal to the nation of Gabon or the US state of Hawaii. This gives it a ranking of 323rd in India (out of a total of 640). The district has a population density of 193 inhabitants per square kilometre (500 /sq mi) . Its population growth rate over the decade 2001-2011 was 16.09%. Chittaurgarh has a sex ratio of 970 females for every 1000 males, and a literacy rate of 62.51%.

### Chittaurgarh Table Data

| **Description** | **2011** | **2001** |
|---|---|---|
| Actual Population | 1,544,338 | 1,330,360 |
| Male | 783,171 | 676,565 |
| Female | 761,167 | 653,795 |
| Population Growth | 16.08% | 19.96% |
| Area Sq. Km | 7,822 | 7,822 |
| Density/km2 | 197 | 167 |
| Proportion to Rajasthan Population | 2.25% | 2.35% |
| Sex Ratio (Per 1000) | 972 | 966 |
| Child Sex Ratio (0-6 Age) | 912 | 926 |
| Average Literacy | 61.71 | 53.99 |

| | | |
|---|---|---|
| Male Literacy | 76.61 | 71.54 |
| Female Literacy | 46.53 | 35.99 |
| Total Child Population (0-6 Age) | 212,507 | 220,863 |
| Male Population (0-6 Age) | 111,120 | 114,687 |
| Female Population (0-6 Age) | 101,387 | 106,176 |
| Literates | 821,825 | 599,044 |
| Male Literates | 514,851 | 401,966 |
| Female Literates | 306,974 | 197,078 |
| Child Proportion (0-6 Age) | 13.76% | 16.60% |
| Boys Proportion (0-6 Age) | 14.19% | 16.95% |
| Girls Proportion (0-6 Age) | 13.32% | 16.24% |

Table 12: Population Statistics of Chittaurgarh

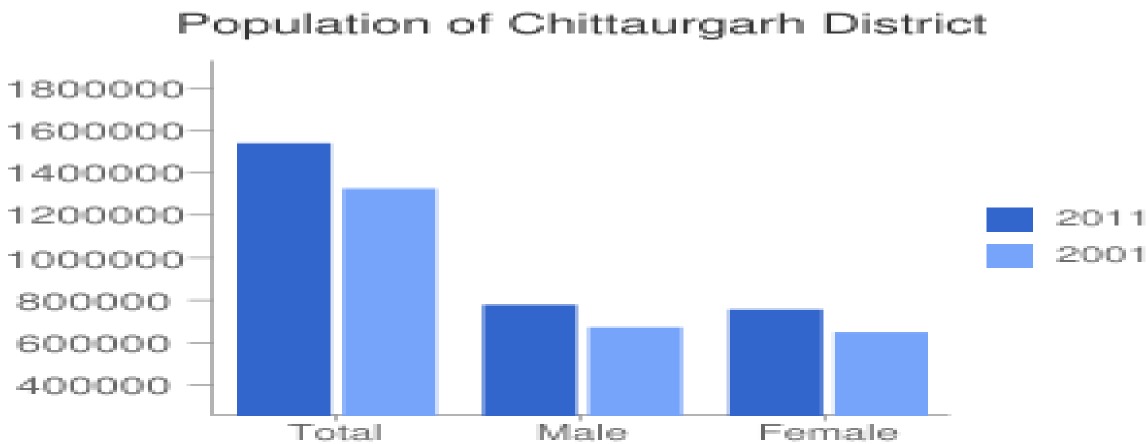


figure 7: Comparative population of Chittaurgarh

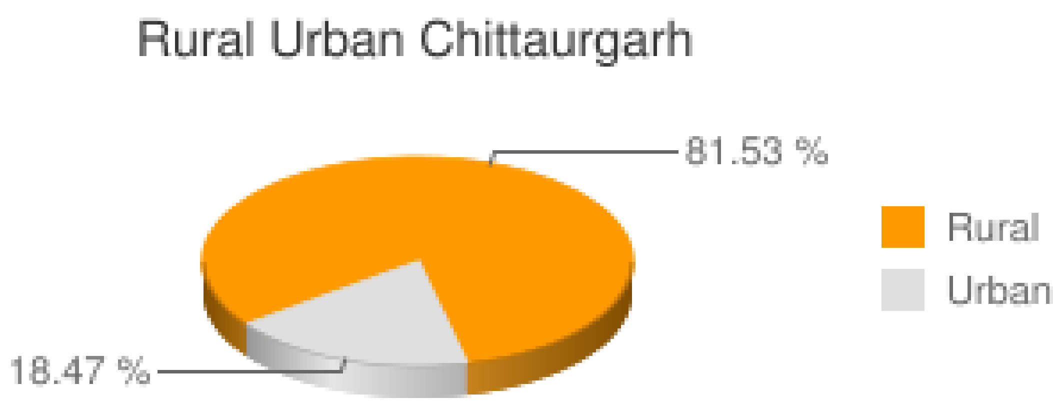


figure 8: Rural Urban Chittaurgarh Population

## Chittaurgarh District Density 2011

The initial provisional data released by census India 2011, shows that density of Chittaurgarh district for 2011 is 197 people per sq. km. In 2001, Chittaurgarh district density was at 167 people per sq. km. Chittaurgarh district administers 7,822 square kilometers of areas.

## Chittaurgarh Literacy Rate 2011

Average literacy rate of Chittaurgarh in 2011 were 61.71 compared to 53.99 of 2001. If things are looked out at gender wise, male and female literacy were 76.61 and 46.53 respectively. For 2001 census, same figures stood at 71.54 and 35.99 in Chittaurgarh District. Total literate in Chittaurgarh District were 821,825 of which male and female were 514,851 and 306,974 respectively. In 2001, Chittaurgarh District had 599,044 in its district.

## Chittaurgarh Sex Ratio 2011

With regards to Sex Ratio in Chittaurgarh, it stood at 972 per 1000 male compared to 2001 census figure of 966. The average national sex ratio in India is 940 as per latest reports of Census 2011 Directorate. In 2011 census, child sex ratio is 912 girls per 1000 boys compared to figure of 926 girls per 1000 boys of 2001 census data.

## Chittaurgarh Child Population 2011

In census enumeration, data regarding child under 0-6 age were also collected for all districts including Chittaurgarh. There were total 212,507 children under age of 0-6 against 220,863 of 2001 census. Of total 212,507 male and female were 111,120 and 101,387 respectively. Child Sex Ratio as per census 2011 was 912 compared to 926 of census 2001. In 2011, Children under 0-6 formed 13.76 percent of Chittaurgarh District compared to 16.60 percent of 2001. There was net change of -2.84 percent in this compared to previous census of India.

## Chittaurgarh Population 2015

What is the population of Chittaurgarh in 2015? The fact is, last census for Chittaurgarh district was done only in 2011 and next such census would only be in 2021. There is no actual figure for population of Chittaurgarh district situated in Rajasthan. As per 2011, Chittaurgarh population is 1,544,338

## Chittaurgarh District Urban/Rural 2011

Out of the total Chittaurgarh population for 2011 census, 18.47 percent lives in urban regions of district. In total 285,264 people lives in urban areas of which males are 146,756 and females are 138,508. Sex Ratio in urban region of Chittaurgarh district is 944 as per 2011 census data. Similarly child sex ratio in Chittaurgarh district was 892 in 2011 census. Child population (0-6) in urban region was 35,292 of which males and females were 18,649 and 16,643. This child population figure of Chittaurgarh district is 12.71 % of total urban population. Average literacy rate in Chittaurgarh district as per census 2011 is 82.75 % of which males and females are 90.81 % and 74.27 % literates respectively. In actual number 206,846 people are literate in urban region of which males and females are 116,339 and 90,507 respectively.

As per 2011 census, 81.53 % population of Chittaurgarh districts lives in rural areas of villages. The total Chittaurgarh district population living in rural areas is 1,259,074 of which males and females are 636,415 and 622,659 respectively. In rural areas of Chittaurgarh district, sex ratio is 978 females per 1000 males. If child sex ratio data of Chittaurgarh district is considered, figure is 916 girls per 1000 boys. Child population in the age 0-6 is 177,215 in rural areas of which males were 92,471 and females were 84,744. The child population comprises 14.53 % of total rural population of Chittaurgarh district. Literacy rate in rural areas of Chittaurgarh district is 56.84 % as per census data 2011. Gender wise, male and female literacy stood at 73.26 and 40.24 percent respectively. In total, 614,979 people were literate of which males and females were 398,512 and 216,467 respectively.

All details regarding Chittorgarh District have been processed by us after receiving from Govt. of India. We are not responsible for errors to population census details of Chittaurgarh District.

| Description | Rural | Urban |
|---|---|---|
| Population (%) | 81.53 % | 18.47 % |
| Total Population | 1,259,074 | 285,264 |
| Male Population | 636,415 | 146,756 |
| Female Population | 622,659 | 138,508 |
| Sex Ratio | 978 | 944 |
| Child Sex Ratio (0-6) | 916 | 892 |
| Child Population (0-6) | 177,215 | 35,292 |
| Male Child(0-6) | 92,471 | 18,649 |
| Female Child(0-6) | 84,744 | 16,643 |
| Child Percentage (0-6) | 14.08 % | 12.37 % |
| Male Child Percentage | 14.53 % | 12.71 % |
| Female Child Percentage | 13.61 % | 12.02 % |
| Literates | 614,979 | 206,846 |
| Male Literates | 398,512 | 116,339 |
| Female Literates | 216,467 | 90,507 |
| Average Literacy | 56.84 % | 82.75 % |
| Male Literacy | 73.26 % | 90.81 % |
| Female Literacy | 40.24 % | 74.27 % |

## UN estimates

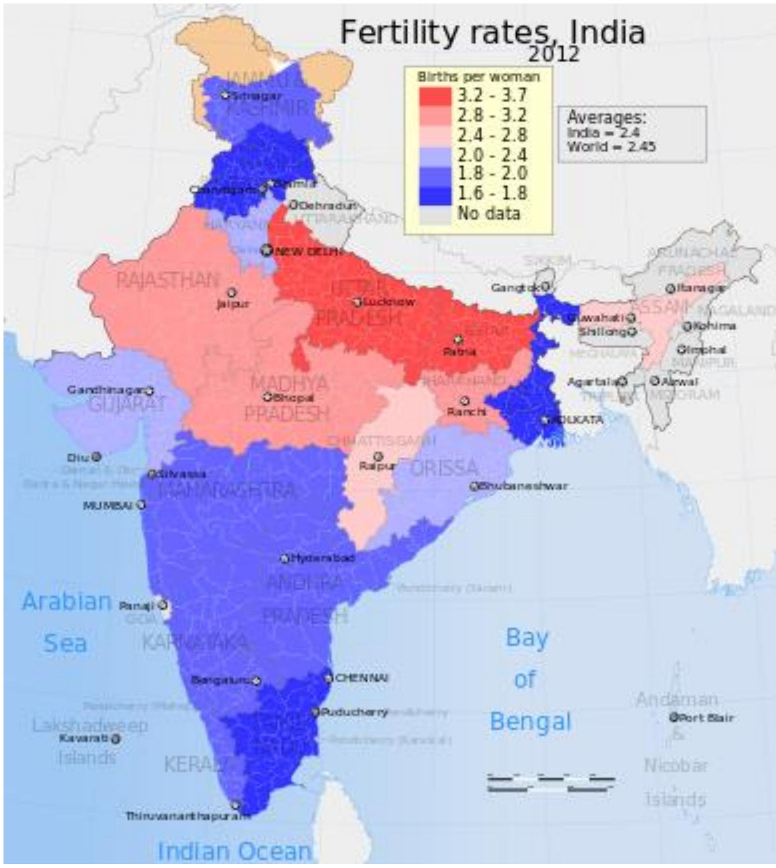
| Period | Births per year | Deaths per year | Natural change per year | CBR[1] | CDR[1] | NC[1] | TFR[1] | IMR[1] |
|---|---|---|---|---|---|---|---|---|

| Period | Births per year | Deaths per year | Natural change per year | CBR[1] | CDR[1] | NC[1] | TFR[1] | IMR[1] |
|---|---|---|---|---|---|---|---|---|
| 1950–1955 | 16,832,000 | 9,928,000 | 6,904,000 | 43.3 | 25.5 | 17.7 | 5.90 | 165.0 |
| 1955–1960 | 17,981,000 | 9,686,000 | 8,295,000 | 42.1 | 22.7 | 19.4 | 5.90 | 153.1 |
| 1960–1965 | 19,086,000 | 9,358,000 | 9,728,000 | 40.4 | 19.8 | 20.6 | 5.82 | 140.1 |
| 1965–1970 | 20,611,000 | 9,057,000 | 11,554,000 | 39.2 | 17.2 | 22.0 | 5.69 | 128.5 |
| 1970–1975 | 22,022,000 | 8,821,000 | 13,201,000 | 37.5 | 15.0 | 22.5 | 5.26 | 118.0 |
| 1975–1980 | 24,003,000 | 8,584,000 | 15,419,000 | 36.3 | 13.0 | 23.3 | 4.89 | 106.4 |
| 1980–1985 | 25,577,000 | 8,763,000 | 16,814,000 | 34.5 | 11.8 | 22.7 | 4.47 | 95.0 |
| 1985–1990 | 26,935,000 | 9,073,000 | 17,862,000 | 32.5 | 10.9 | 21.5 | 4.11 | 85.1 |
| 1990–1995 | 27,566,000 | 9,400,000 | 18,166,000 | 30.0 | 10.2 | 19.8 | 3.72 | 76.4 |
| 1995–2000 | 27,443,000 | 9,458,000 | 17,985,000 | 27.2 | 9.4 | 17.8 | 3.31 | 68.9 |
| 2000–2005 | 27,158,000 | 9,545,000 | 17,614,000 | 24.8 | 8.7 | 16.1 | 2.96 | 60.7 |
| 2005–2010 | 27,271,000 | 9,757,000 | 17,514,000 | 23.1 | 8.3 | 14.8 | 2.73 | 52.9 |

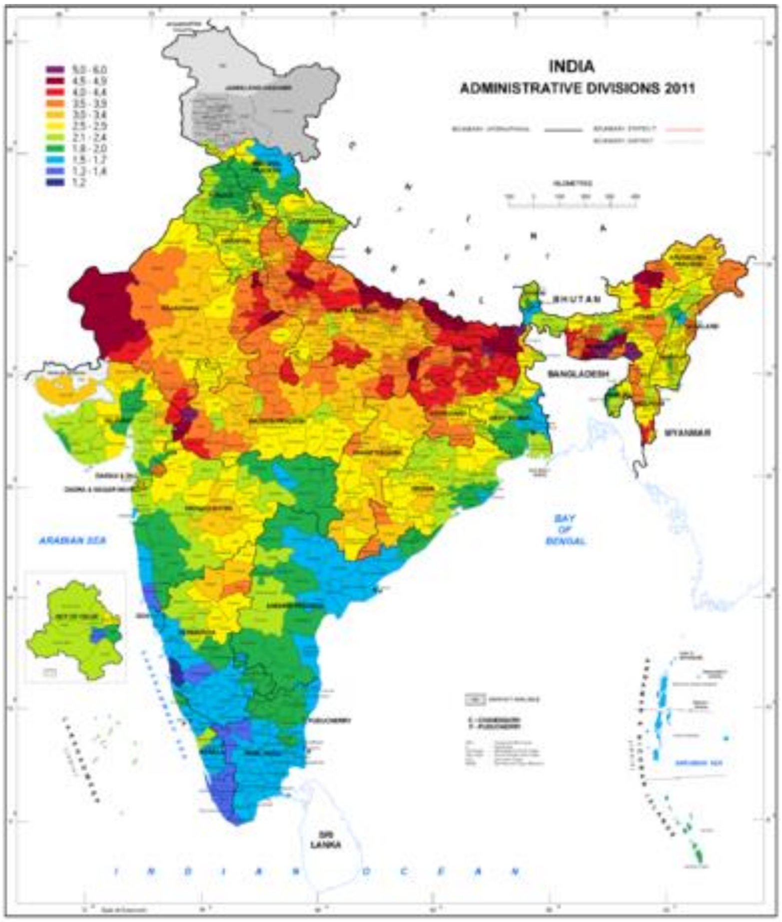
[1] CBR = crude birth rate (per 1000); CDR = crude death rate (per 1000); NC = natural change (per 1000); TFR = total fertility rate (number of children per woman); IMR = infant mortality rate per 1000 births

Source: United Nations, Department of Economic and Social Affairs website > World Population Prospects: The 2010 revision.[58]

## Sample Registration System




Total fertility rate map: average births per woman by states and union territories, 2012[59]




Total fertility rate map: average births per woman by districts, 2011

| | Average population (x 1000) | Live births[1] | Deaths[1] | Natural change | Crude birth rate (per 1000) | Crude death rate (per 1000) | Natural change (per 1000) | Total Fertility Rate |
|---|---|---|---|---|---|---|---|---|
| 1981 | 716 493 | 24 289 000 | 8 956 000 | 15 333 000 | 33.9 | 12.5 | 21.4 | |
| 1982 | 733 152 | 24 781 000 | 8 725 000 | 16 056 000 | 33.8 | 11.9 | 21.9 | |
| 1983 | 750 034 | 25 276 000 | 8 925 000 | 16 351 000 | 33.7 | 11.9 | 21.8 | |
| 1984 | 767 147 | 26 006 000 | 9 666 000 | 16 340 000 | 33.9 | 12.6 | 21.3 | |
| 1985 | 784 491 | 25 810 | 9 257 000 | 16 553 000 | 32.9 | 11.8 | 21.1 | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | 000 | | | | | | |
| 1986 | 802 052 | 26 147 000 | 8 903 000 | 17 244 000 | 32.6 | 11.1 | 21.5 | |
| 1987 | 819 800 | 26 316 000 | 8 936 000 | 17 380 000 | 32.1 | 10.9 | 21.2 | |
| 1988 | 837 700 | 26 388 000 | 9 215 000 | 17 173 000 | 31.5 | 11.0 | 20.5 | |
| 1989 | 855 707 | 26 185 000 | 8 814 000 | 17 371 000 | 30.6 | 10.3 | 20.3 | |
| 1990 | 873 785 | 26 388 000 | 8 476 000 | 17 912 000 | 30.2 | 9.7 | 20.5 | 3.8 |
| 1991 | 891 910 | 26 133 000 | 8 741 000 | 17 392 000 | 29.3 | 9.8 | 19.5 | |
| 1992 | 910 065 | 26 392 000 | 9 192 000 | 17 200 000 | 29.0 | 10.1 | 18.9 | |
| 1993 | 928 226 | 26 640 000 | 8 633 000 | 18 007 000 | 28.7 | 9.3 | 19.4 | |
| 1994 | 946 373 | 27 161 000 | 8 801 000 | 18 360 000 | 28.7 | 9.3 | 19.4 | |
| 1995 | 964 486 | 27 295 000 | 8 680 000 | 18 615 000 | 28.3 | 9.0 | 19.3 | 3.5 |
| 1996 | 982 553 | 26 824 000 | 8 745 000 | 18 079 000 | 27.3 | 8.9 | 18.4 | |
| 1997 | 1 000 558 | 27 215 000 | 8 905 000 | 18 310 000 | 27.2 | 8.9 | 18.3 | |
| 1998 | 1 018 471 | 26 989 000 | 9 166 000 | 17 823 000 | 26.5 | 9.0 | 17.5 | |
| 1999 | 1 036 259 | 26 943 000 | 9 015 000 | 17 928 000 | 26.0 | 8.7 | 17.3 | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 2000 | 1 053 898 | 27 191 000 | 8 958 000 | 18 233 000 | 25.8 | 8.5 | 17.3 | 3.2 |
| 2001 | 1 071 374 | 27 213 000 | 9 000 000 | 18 213 000 | 25.4 | 8.4 | 17.0 | |
| 2002 | 1 088 694 | 27 217 000 | 8 818 000 | 18 399 000 | 25.0 | 8.1 | 16.9 | |
| 2003 | 1 105 886 | 27 426 000 | 8 847 000 | 18 579 000 | 24.8 | 8.0 | 16.8 | |
| 2004 | 1 122 991 | 27 064 000 | 8 422 000 | 18 642 000 | 24.1 | 7.5 | 16.6 | |
| 2005 | 1 140 043 | 27 133 000 | 8 664 000 | 18 469 000 | 23.8 | 7.6 | 16.2 | 2.9 |
| 2006 | 1 157 039 | 27 190 000 | 8 678 000 | 18 512 000 | 23.5 | 7.5 | 16.0 | |
| 2007 | 1 173 972 | 27 119 000 | 8 687 000 | 18 432 000 | 23.1 | 7.4 | 15.7 | |
| 2008 | 1 190 864 | 27 152 000 | 8 812 000 | 18 340 000 | 22.8 | 7.4 | 15.4 | 2.6 |
| 2009 | 1 207 740 | 27 174 000 | 8 817 000 | 18 357 000 | 22.5 | 7.3 | 15.2 | 2.6 |
| 2010 | 1 224 614 | 27 064 000 | 8 817 000 | 18 247 000 | 22.1 | 7.2 | 14.9 | 2.5 |
| 2011 | 1 242 738 | 27 092 000 | 8 823 000 | 18 268 000 | 21.8 | 7.1 | 14.7 | 2.44 |
| 2012 | 1 261 006 | 27 237 000 | 8 827 000 | 18 410 000 | 21.6 | 7.0 | 14.6 | 2.4 |
| 2013 | 1 279 416 | 27 379 500 | 8 956 000 | 18 423 600 | 21.4 | 7.0 | 14.4 | 2.3 |

[1] The numbers of births and deaths were calculated from the birth and death rates and the average population.

Sources: United Nations Statistics Division website > Demographic Yearbooks, Census of India website > Vital Statistics > Sample Registration System.

## Structure of the population

Structure of the population (01.05.2010) (Census) (Includes data for the Indian-held part of Jammu and Kashmir, the final status of which has not yet been determined) :

| Age Group | Male | Female | Total | % |
|---|---|---|---|---|
| Total | 623 270 258 | 587 584 719 | 1 210 854 977 | 100 |
| 0-4 | 58 632 074 | 54 174 704 | 112 806 778 | 9,32 |
| 5-9 | 66 300 466 | 60 627 660 | 126 928 126 | 10,48 |
| 10-14 | 69 418 835 | 63 290 377 | 132 709 212 | 10,96 |
| 15-19 | 63 982 396 | 56 544 053 | 120 526 449 | 9,95 |
| 20-24 | 57 584 693 | 53 839 529 | 111 424 222 | 9,20 |
| 25-29 | 51 344 208 | 50 069 757 | 101 413 965 | 8,38 |
| 30-34 | 44 660 674 | 43 934 277 | 88 594 951 | 7,32 |
| 35-39 | 42 919 381 | 42 221 303 | 85 140 684 | 7,03 |
| 40-44 | 37 545 386 | 34 892 726 | 72 438 112 | 5,98 |
| 45-49 | 32 138 114 | 30 180 213 | 62 318 327 | 5,15 |
| 50-54 | 25 843 266 | 23 225 988 | 49 069 254 | 4,05 |
| 55-59 | 19 456 012 | 19 690 043 | 39 146 055 | 3,23 |
| 60-64 | 18 701 749 | 18 961 958 | 37 663 707 | 3,11 |
| 65-69 | 12 944 326 | 13 510 657 | 26 454 983 | 2,18 |
| 70-74 | 9 651 499 | 9 557 343 | 19 208 842 | 1,59 |
| 75-79 | 4 490 603 | 4 741 900 | 9 232 503 | 0,76 |

| | | | | |
|---|---|---|---|---|
| 80-84 | 2 927 040 | 3 293 189 | 6 220 229 | 0,51 |
| 85-89 | 1 120 106 | 1 263 061 | 2 383 167 | 0,20 |
| 90-94 | 652 465 | 794 069 | 1 446 534 | 0,12 |
| 95-99 | 294 759 | 338 538 | 633 297 | 0,05 |
| 100+ | 289 325 | 316 453 | 605 778 | 0,05 |
| unknown | 2 372 881 | 2 116 921 | 4 489 802 | 0,37 |

| Age group | Male | Female | Total | Percent |
|---|---|---|---|---|
| 0-14 | 194 351 375 | 178 092 741 | 372 444 116 | 30,76 |
| 15-64 | 394 175 879 | 373 559 847 | 767 735 726 | 63,40 |
| 65+ | 32 370 123 | 33 815 210 | 66 185 333 | 5,47 |

## Fertility rate

From the Demographic Health Survey:[63]

Crude Birth Rate (CBR) and Total Fertility Rate (TFR) (Wanted Fertility Rate):

| Year | CBR (Total) | TFR (Total) | CBR (Urban) | TFR (Urban) | CBR (Rural) | TFR (Rural) |
|---|---|---|---|---|---|---|
| 1992-1993 | 28,7 | 3,39 (2,64) | 24,1 | 2,70 (2,09) | 30,4 | 3,67 (2,86) |
| 1998-1999 | 24,8 | 2,85 (2,13) | 20,9 | 2,27 (1,73) | 26,2 | 3,07 (2,28) |
| 2003-2005 | 23,1 | 2,68 (1,9) | 18,8 | 2,06 (1,6) | 25,0 | 2,98 (2,1) |

TFR = total/wanted fertility rate, CBR = crude birth rate.

## Structure of the population [62]

Structure of the population (01.05.2010) (Census) (Includes data for the Indian-held part of Jammu and Kashmir, the final status of which has not yet been determined) :

| Age Group | Male | Female | Total | % |
|---|---|---|---|---|
| Total | 623 270 258 | 587 584 719 | 1 210 854 977 | 100 |
| 0-4 | 58 632 074 | 54 174 704 | 112 806 778 | 9,32 |
| 5-9 | 66 300 466 | 60 627 660 | 126 928 126 | 10,48 |
| 10-14 | 69 418 835 | 63 290 377 | 132 709 212 | 10,96 |
| 15-19 | 63 982 396 | 56 544 053 | 120 526 449 | 9,95 |
| 20-24 | 57 584 693 | 53 839 529 | 111 424 222 | 9,20 |
| 25-29 | 51 344 208 | 50 069 757 | 101 413 965 | 8,38 |
| 30-34 | 44 660 674 | 43 934 277 | 88 594 951 | 7,32 |
| 35-39 | 42 919 381 | 42 221 303 | 85 140 684 | 7,03 |
| 40-44 | 37 545 386 | 34 892 726 | 72 438 112 | 5,98 |
| 45-49 | 32 138 114 | 30 180 213 | 62 318 327 | 5,15 |
| 50-54 | 25 843 266 | 23 225 988 | 49 069 254 | 4,05 |
| 55-59 | 19 456 012 | 19 690 043 | 39 146 055 | 3,23 |
| 60-64 | 18 701 749 | 18 961 958 | 37 663 707 | 3,11 |
| 65-69 | 12 944 326 | 13 510 657 | 26 454 983 | 2,18 |
| 70-74 | 9 651 499 | 9 557 343 | 19 208 842 | 1,59 |
| 75-79 | 4 490 603 | 4 741 900 | 9 232 503 | 0,76 |
| 80-84 | 2 927 040 | 3 293 189 | 6 220 229 | 0,51 |
| 85-89 | 1 120 106 | 1 263 061 | 2 383 167 | 0,20 |
| 90-94 | 652 465 | 794 069 | 1 446 534 | 0,12 |
| 95-99 | 294 759 | 338 538 | 633 297 | 0,05 |

| | | | | |
|---|---|---|---|---|
| 100+ | 289 325 | 316 453 | 605 778 | 0,05 |
| unknown | 2 372 881 | 2 116 921 | 4 489 802 | 0,37 |

| Age group | Male | Female | Total | Percent |
|---|---|---|---|---|
| 0-14 | 194 351 375 | 178 092 741 | 372 444 116 | 30,76 |
| 15-64 | 394 175 879 | 373 559 847 | 767 735 726 | 63,40 |
| 65+ | 32 370 123 | 33 815 210 | 66 185 333 | 5,47 |

## Fertility rate

From the Demographic Health Survey:[63]

Crude Birth Rate (CBR) and Total Fertility Rate (TFR) (Wanted Fertility Rate):

| Year | CBR (Total) | TFR (Total) | CBR (Urban) | TFR (Urban) | CBR (Rural) | TFR (Rural) |
|---|---|---|---|---|---|---|
| 1992-1993 | 28,7 | 3,39 (2,64) | 24,1 | 2,70 (2,09) | 30,4 | 3,67 (2,86) |
| 1998-1999 | 24,8 | 2,85 (2,13) | 20,9 | 2,27 (1,73) | 26,2 | 3,07 (2,28) |
| 2003-2005 | 23,1 | 2,68 (1,9) | 18,8 | 2,06 (1,6) | 25,0 | 2,98 (2,1) |

TFR = total/wanted fertility rate, CBR = crude birth rate.

## Regional vital statistics

The below table gives the vital statistics (Births, Deaths, IMR and NGR) for the year 2010, according to the Registrar Gen., India.[64]

| State | Birth Rate | BR Rural | BR Urban | Death Rate | DR Rural | DR Urban | NGR | NGR Rural | NGR Urban | IMR |
|---|---|---|---|---|---|---|---|---|---|---|
| Andhra Pradesh | 17.9 | 18.3 | 16.7 | 7.6 | 8.6 | 5.4 | 1.02% | 0.97% | 1.13% | 46 |
| Assam | 23.2 | 24.4 | 15.8 | 8.2 | 8.6 | 5.8 | 1.49% | 1.58% | 1.01% | 58 |

| State | Birth Rate | BR Rural | BR Urban | Death Rate | DR Rural | DR Urban | NGR | NGR Rural | NGR Urban | IMR |
|---|---|---|---|---|---|---|---|---|---|---|
| Arunachal Pradesh | 28.1 | 28.8 | 22.0 | 6.8 | 7.0 | 5.6 | 2.13% | 2.18% | 1.64% | 48 |
| Chhattisgarh | 25.3 | 26.8 | 18.6 | 8.0 | 8.4 | 6.2 | 1.73% | 1.84% | 1.24% | 51 |
| Delhi | 17.8 | 19.7 | 17.5 | 4.2 | 4.6 | 4.1 | 1.36% | 1.50% | 1.34% | 30 |
| Gujarat | 21.8 | 23.3 | 19.4 | 6.7 | 7.5 | 5.5 | 1.51% | 1.58% | 1.40% | 44 |
| Haryana | 22.3 | 23.3 | 19.8 | 6.6 | 7.0 | 5.6 | 1.57% | 1.63% | 1.43% | 48 |
| Jammu and Kashmir | 18.3 | 19.5 | 13.5 | 5.7 | 5.9 | 4.7 | 1.26% | 1.36% | 0.88% | 43 |
| Jharkhand | 25.3 | 26.7 | 19.3 | 7.0 | 7.4 | 5.4 | 1.83% | 1.93% | 1.39% | 42 |
| Karnataka | 19.2 | 20.2 | 17.5 | 7.1 | 8.1 | 5.4 | 1.21% | 1.21% | 1.21% | 38 |
| Kerala | 14.8 | 14.8 | 14.8 | 7.0 | 7.1 | 6.7 | 0.78% | 0.77% | 0.81% | 13 |
| Madhya Pradesh | 27.3 | 29.2 | 20.5 | 8.3 | 9.0 | 6.0 | 1.89% | 2.02% | 1.45% | 62 |
| Maharashtra | 35.1 | 34.6 | 26.4 | 26.3 | 25.5 | 22.3 | 3.06% | 3.02% | 3.11% | 78 |
| Odisha | 20.5 | 21.4 | 15.2 | 8.6 | 9.0 | 6.6 | 1.19% | 1.24% | 0.86% | 61 |
| Punjab | 16.6 | 17.2 | 15.6 | 7.0 | 7.7 | 5.8 | 0.96% | 0.95% | 0.98% | 34 |
| Rajasthan | 26.7 | 27.9 | 22.9 | 6.7 | 6.9 | 6.0 | 2.00% | 2.09% | 1.69% | 55 |
| Tamil Nadu | 15.9 | 16.0 | 15.8 | 7.6 | 8.2 | 6.9 | 0.83% | 0.78% | 0.89% | 24 |
| Uttar Pradesh | 28.3 | 29.2 | 24.2 | 8.1 | 8.5 | 6.3 | 2.02% | 2.07% | 1.79% | 61 |
| West Bengal | 16.8 | 18.6 | 11.9 | 6.0 | 6.0 | 6.3 | 1.07% | 1.26% | 0.56% | 31 |
| Bihar | 20.5 | 22.1 | 14.6 | 5.9 | 6.9 | 2.3 | 1.46% | 1.52% | 1.23% | 31 |
| Goa | 13.2 | 12.6 | 13.7 | 6.6 | 8.1 | 5.7 | 0.66% | 0.45% | 0.80% | 10 |
| Himachal Pradesh | 16.9 | 17.5 | 11.5 | 6.9 | 7.2 | 4.2 | 1.00% | 1.03% | 0.73% | 40 |
| Manipur | 14.9 | 14.8 | 15.3 | 4.2 | 4.3 | 4.0 | 1.07% | 1.05% | 1.13% | 14 |

| State | Birth Rate | BR Rural | BR Urban | Death Rate | DR Rural | DR Urban | NGR | NGR Rural | NGR Urban | IMR |
|---|---|---|---|---|---|---|---|---|---|---|
| Meghalaya | 24.5 | 26.6 | 14.8 | 7.9 | 8.4 | 5.6 | 1.66% | 1.82% | 0.92% | 55 |
| Mizoram | 17.1 | 21.1 | 13.0 | 4.5 | 5.4 | 3.7 | 1.25% | 1.57% | 0.93% | 37 |
| Nagaland | 16.8 | 17.0 | 16.0 | 3.6 | 3.7 | 3.3 | 1.32% | 1.33% | 1.27% | 23 |
| Sikkim | 17.8 | 18.1 | 16.1 | 5.6 | 5.9 | 3.8 | 1.23% | 1.23% | 1.23% | 30 |
| Tripura | 14.9 | 15.6 | 11.5 | 5.0 | 4.8 | 5.7 | 0.99% | 1.08% | 0.58% | 27 |
| Uttarakhand | 19.3 | 20.2 | 16.2 | 6.3 | 6.7 | 5.1 | 1.30% | 1.35% | 1.11% | 38 |
| Andaman and Nicobar Islands | 15.6 | 15.5 | 15.8 | 4.3 | 4.8 | 3.3 | 1.13% | 1.07% | 1.26% | 25 |
| Chandigarh | 15.6 | 21.6 | 15.0 | 3.9 | 3.7 | 3.9 | 1.16% | 1.79% | 1.10% | 22 |
| Dadra and Nagar Haveli | 26.6 | 26.0 | 28.6 | 4.7 | 5.1 | 3.3 | 2.19% | 2.09% | 2.53% | 38 |
| Daman and Diu | 18.8 | 19.1 | 18.3 | 4.9 | 4.9 | 4.8 | 1.39% | 1.42% | 1.36% | 23 |
| Lakshadweep | 14.3 | 15.5 | 13.2 | 6.4 | 6.1 | 6.7 | 0.80% | 0.95% | 0.65% | 25 |
| Puducherry | 16.7 | 16.7 | 16.7 | 7.4 | 8.2 | 7.0 | 0.93% | 0.85% | 0.96% | 22 |

**Population projections**

India is projected to overtake China as the world's most populous nation by 2030. India's population growth has raised concerns that it would lead to widespread unemployment and political instability. Note that these projections make assumptions about future fertility and death rates which may not turn out to be correct in the event. Fertility rates also vary from region to region, with some higher than the national average and some lower.

Source:[80]

- **2020**: 1,326,093,000
- **2030**: 1,460,743,000
- **2040**: 1,571,715,000
- **2050**: 1,656,554,000

## 2020 estimate

In millions (example: 361 = 361,000,000)

Source:

| Year | Under 15 | 15-64 | 65+ | Total |
|---|---|---|---|---|
| 2000 | 361 | 604 | 45 | 1010 |
| 2005 | 368 | 673 | 51 | 1093 |
| 2010 | 370 | 747 | 58 | 1175 |
| 2015 | 372 | 819 | 65 | 1256 |
| 2020 | 373 | 882 | 76 | 1332 |

# CHAPTER 8

# RESEARCH METHODOLOGY AND DESIGN

8.1 OVERVIEW

8.2 RESEARCH PERSPECTIVES

8.3 STATEMENT OF HYPOTHESIS

8.4 SOURCE OF DATA COLLECTION

8.5 SAMPLE SIZE

8.6 SAMPLING METHOD

8.7 METHOD OF DATA COLLECTION

8.8 INSTRUMENT USED

## 8.1 OVERVIEW

This chapter presents the methodological concerns used in conducting this research and provides justification for each step taken. It involves the General Research Perspectives ,Data Collection, Summary of Statistical Measurement of the Research.

## 8.2 RESEARCH PERSPECTIVES

Research methodology refers the procedural framework within which the research is conducted (Remenyi et al., 1998). Research methodology is characterised by procedures and methods for arriving at results and findings and tools for proofing or disproving such knowledge Nachamias *et al.*, 1996; Saunders approaches a researcher chooses to conduct a research which could be affected by the researcher's philosophical perspectives and paradigm. According to Saunders research could be broadly classified into five distinct group as shown in figure:

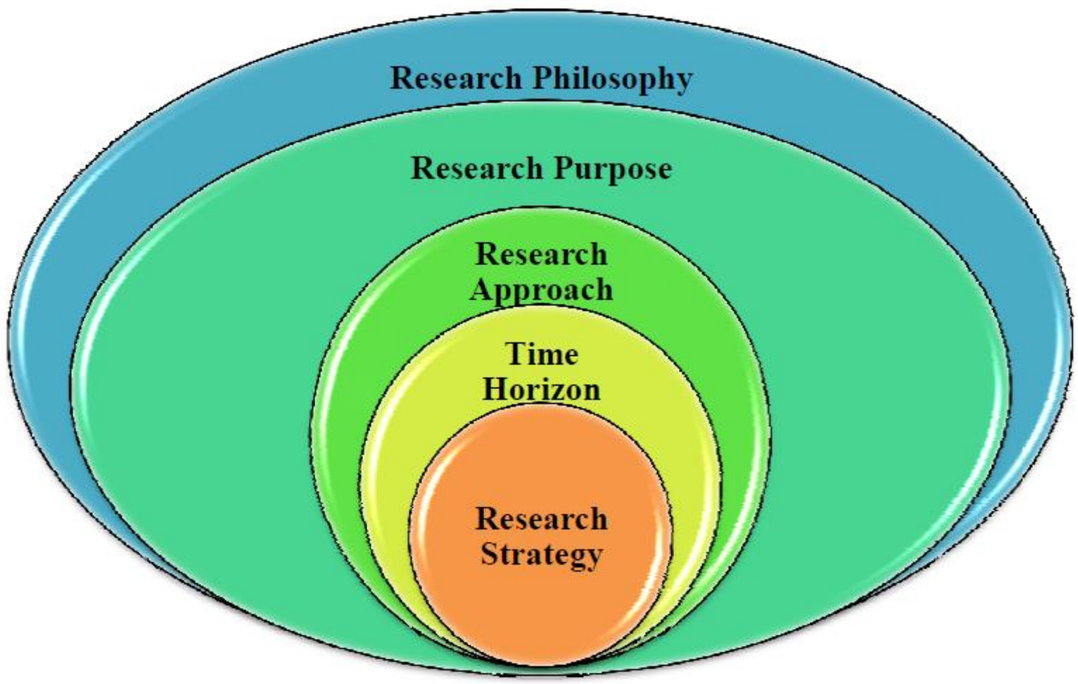



Figure 9: Research perspective

### 8.2.1 RESEARCH PHILOSOPHY

Research philosophy refers to the assumptions and beliefs that govern the way we view the world (Saunders et al., 2007). Two main research philosophical views are positivism or phenomenological perspective. Positivism has to do with the situation where knowledge or the world is thought to exist independent of people's perceptions of it and that science uses objective techniques to discover what exist in the world" (Sullivan, 2001 p.47). Positivism uses logical, quantitative, more objective scientific methods to test hypothetically-deductive generalisations.

On the other hand, phenomenological or interpretive philosophy holds that "... reality of the world is thought to arise out of the creation and exchange of social meaning during the process of social interactions" (Sullivan, 2001 p. 48). Phenomenological perspective uses qualitative, more subjective, naturalistic approaches in inductively and holistically to understand human experiences in context-specific settings (Amaratunga, Baldry, Sarshar & Newton, 2002).
In this study we have chosen positivism more than phenomenological perspective because we believe that service quality and customer satisfaction constructs as pertaining in Ghana's insurance industry can be examined objectively through the use of established theoretical frameworks and structured instruments to assess and analyse it, upon which generalizations can be made from the findings.

### 8.2.2 RESEARCH PURPOSE

The research purpose is a broad statement of what the research hopes to achieve. According to purpose, research could be broadly divided into descriptive, exploratory and explanatory (Saunders *et al.,* 2000, 2007; Cooper and Schindler 2006). A descriptive research is a study that seeks to "portray an accurate profile of persons, events or situations" (Robson 2002:59 in Saunders *et al.,* 2007). It involves formalising the study with definite structures in order to better describe or present facts about a phenomenon as it is perceived or as it is in reality. An explanatory research tries to establish relationship that exists between variables. It aims at identifying how one variable affects the other; it seeks to provide an empirical explanation to the causality and causes and effects relationship between one or more variables (Saunders *et al*., 2000, 2007; Malhotra & Birks, 2007; Cooper & Schindler 2006). They are also used when the purpose of the study is to answer 'why' in a given context. Lastly, research may be exploratory where a study is conducted to explore and find out what is happening or to seek new insights about a phenomenon in a new light" (Robson, 2002). Mostly, it is used when a researcher wants to have a deeper understanding of a situation or a problem, or where the area of study is so new or vague that it becomes critically important to examine unknown variable that may affect a particular phenomenon. It, therefore, involves the use of methods like searching for library materials, asking for expert's opinion, and conducting a focus group interviews.
Since the purpose of a study may involve both qualitative and quantitative results, mixed methodology has been proposed by many authors to be appropriate in some cases. This study combines all three: explanatory, descriptive and exploratory purposes. Firstly, the study is descriptive in that it seeks to describe in detail the state of customer satisfaction and service quality in the insurance industry, thus giving an in-dept understanding of the reality of customer satisfaction with service quality in the GII and to better understand relative importance of service quality dimensions to the customer. Secondly, the study is explanatory since it will seek to determine the impact of service quality on overall satisfaction and the influence of customer demographic variables on overall satisfaction. It will also explore the relationships that exist between customer satisfaction and customer behaviour intentions such as likelihood to

recommend and repurchase services. Thirdly, study exploratory in that it is still unknown in the Ghana's Insurance Industry, whether customer are satisfied and what are their perception of insurance service quality in the GII.

### 8.2.3 RESEARCH APPROACH

Research may be deductive or inductive. Deductive research approach begins with the development of a theory or hypothesis and later a development of a strategy to test it in a context to verify or reject its claims. So it is thinking from general to specific. On the other hand, the approach is inductive where the research begins with an observation of a phenomenon in an environment, then data is collected upon which a theory is developed or generalisation is made. Thus, thinking from specific to general.

In this study, we have carefully selected existing empirical theories and models, applying and testing them in assessing the impact of service quality on customer satisfaction in the context of Ghana's Insurance Industry. Therefore, the study is deductive.

### 8.2.4 TIME HORIZON

In terms of time horizon, research design can be longitudinal or cross-sectional. A cross sectional study examines a particular phenomenon at a specific period of time (Saunders *et al.,* 2007). According to Malhotra and Birks (2007) one sample of a population can be taken and studied at a particular time as in a single cross-sectional study or two or more samples of a target population could be studied once as in multiple cross sectional study. Conversely, in terms of time horizon, a study may be longitudinal where a particular phenomenon is studied at different periods of time. Longitudinal study can take the form of a single longitudinal study where only one sample is studied at different time periods or multilongitudinal where two or more samples are studied at different periods of time (Malhotra & Birks, 2007). This study is typically a cross-sectional study in that data will be collected from a cross section of customers of insurance companies in Ghana once and not for different periods of time.

### 8.2.5 RESEARCH STRATEGY

Research strategy is a general plan of how a researcher intends to answer the research questions. A Researcher's strategy will determine, to a large extent, the choice of data collection methods. The main research strategies are action research, ethnographic studies, experiment, survey, case study, grounded theory or archival research (Saunders *et al.*, 2000, 2007; Cooper & Schindler, 2006; Malhotra & Birks, 2007).

**Action research**: The term "action research" was first used by Lewin in 1946. It is a study that investigates a specific problem in a specific environment and afterwards an appropriate intervention is designed and implemented to solve the problem or improve the situation. It is a research in action rather than about action (Coghian & Brannick, 2005 in Saunders *et al., 2007).* It is diagnostic and evaluative, involves people or subjective of study in solving the problem and its more collaborative in nature (ibid).

**Ethnographic studies**: The word 'ethno' is a Greek word that refers to a people, race or cultural group, combines with the suffix 'graphy' meaning 'knowing something or a knowledge of something' to produce the term ethnography (Sullivan, 2001). Ethnographic study describes and explains the cultural bases of people, usually conducted in the people's natural environmental settings. In such a study, the research may choose to observe a characteristic of people's culture by being part of and participate in the activities of the people or situation being studied (Malhotra and Birks, 2007; Saunders et al., 2007; Cooper and Schindler, 2006; Sullivan, 2001).

**Experiment:** experiments are a type of causal study in which a researcher investigates changes in one variable while manipulating one or more other variables under controlled conditions. It is usually conducted in natural sciences and social psychology. Its main purpose is to study causal links in variables under given situations (Saunders *et al.,* 2007; Cooper & Schindler, 2006).

**Survey:** A survey is a type of method in which the opinions of the sample or population is sought by the researcher, usually with a more objective research instrument, say a structured questionnaire. It is usually associated with a deductive approach and is conducted usually in business and management research to prove or disprove certain assumed propositions and hypothesis. It allows for the collection of large amount of data from a large population economically. It is most frequently conducted to answer research questions relating to 'who, what, how much and how many' involved in a problem of study.

**Case study**: A case study involves a study of a particular situation and its impact in order to have a more accurate detail and in-dept of the nature of the phenomenon as it relates to a specific environment. It is mostly used where the purpose is to gain a rich and an in-depth understanding of the context of the research and the processes being enacted (Morris and Wood, 1991 in Saunders et al., 2007). It therefore uses multiple data collection sources, termed triangulation. Mostly it is related explanatory and exploratory research that seeks to find out 'why', 'what' and 'how' issues in the case context. Yin (2003 in Saunders et al) maintains that case studies can be single or multiple, holistic or embedded.

**Grounded theory:** It is "a research methodology for developing theory by letting the theory emerge from the data or be grounded in the data." (Sullivan often associated with inductive approach. It is the strategy that seek or explain behaviour.

**Archival research:** It refers to a study that uses administrative records and documents as the principal sources of data. It usually used when the purpose is to find out about the past and changes over time, and often forms the starting point for explanatory, exploratory or descriptive studies. These strategies can be combined in a single study for a particular purpose Saunders 2007). In this study we chose basically survey strategy because it seeks the opinion of population about a specific subject matter, which is their perception of the service quality and their customer satisfaction and it combines the use of qualitative a Sullivan, 2001). A grounded theory is seeks to build theory to predict and quantitative techniques.

## 8.3 STATEMENT OF HYPOTHESIS

A research hypothesis is the statement created by researchers when they speculate upon the outcome of a research or experiment.
Every true experimental design must have this statement at the core of its structure, as the ultimate aim of any experiment.
The hypothesis is generated via a number of means, but is usually the result of a process of inductive reasoning where observations lead to the formation of a theory. Scientists then use a large battery of deductive methods to arrive at a hypothesis that is testable, falsifiable and realistic.

The hypotheses for this thesis are:
a) Risk management and internal control systems exist in Indian Insurance Industry.
b) The risk management and internal control systems are being complied with IRDA.

## 8.4 SOURCE OF DATA COLLECTION –

**Data collection** is the process of gathering and measuring information on targeted variables in an established systematic fashion, which then enables one to answer relevant questions and evaluate outcomes. Regardless of the field of study or preference for defining data (quantitative or qualitative), accurate data collection is essential to maintaining the integrity of research.
Generally we can collect data from two sources, primary sources and secondary sources. Data collected from primary sources are known as primary data and data collected from secondary sources are called secondary data.
Primary data are also known as raw data. Data are collected from the original source in a controlled or an uncontrolled environment. Example of a controlled environment is experimental research where certain variables are being controlled by the researcher. On the other hand, data collected through observation or questionnaire survey in a natural setting are examples data obtained in an uncontrolled environment. Secondary data are data obtained from secondary sources such as reports, books, journals, documents, magazines, the web and more.

Primary data as information would be directly collected from customers and employees of insurance companies in Chittorgarh, Rajasthan.

## 8.5 SAMPLE SIZE –

The sample size of a statistical sample is the number of observations that constitute it. The sample size is an important feature of any empirical study in which the goal is to make inferences about a population from a sample.
In a stratified survey there would be different sample sizes for each stratum.

The sample size of the study is 200 Customers who are categorized according to their profession as –

- Business class
- Govt. employee
- Manufacturing sector
- Service sector
- Others including house wife & retired person

Additionally , the employees of each insurance company in Chittorgarh district would also be surveyed.

## 8.6 SAMPLING METHOD –

The sampling method used in the study is Stratified sampling.

**Stratified sampling** refers to a type of **sampling** method . With **stratified sampling**, the researcher divides the population into separate groups, called strata. Then, a probability **sample** (often a simple random **sample** ) is drawn from each group. **Stratified sampling** has several advantages over simple random **sampling**.

Stratified random sampling is used to obtain a sample population that best represents the entire population being studied. Its advantages include minimizing sample selection bias and ensuring certain segments of the population are not overrepresented or underrepresented.

## 8.7 METHOD OF DATA COLLECTION –

There are many methods to collect data, depending on our research design and the methodologies employed. Some of the common methods are questionnaires, interview and observation.

In this study the data collection is done by filling form through personal interview

## 8.8 INSTRUMENT USED –

The instrument used in this study is :- Questionnaire / form

A questionnaire is a research instrument consisting of a series of questions and other prompts for the purpose of gathering information from respondents. Although they are often designed for statistical analysis of the responses, this is not always the case. The questionnaire was invented by Sir Francis Galton. Questionnaires are widely used for both quantitative and qualitative research.

### 8.8.2 Questionnaire development and Pre-testing

The questionnaire was used to collect data from respondents (Appendix B). The questionnaire items were adopted from previous studies (Gyasi and Azumah, 2009; Gronroos, 1984, 2000; Parasuraman, et al., 1985, 1988). The questions were modified to suit the insurance industry context in Ghana, and sought respondents' feelings about overall customer satisfactions and behaviour intentions of respondents, and evaluation of dimensions service quality dimensions. Specifically, the questionnaire had four main parts: respondents' identification data, overall customer satisfaction with service quality, perception of service quality and behaviour intention.

A preliminary draft of the questionnaire was pre-tested to improve upon the clarity of the question items. A sample of twenty (20) customers from different insurance companies in Ghana were selected by simple random method and given the questionnaire to read and comment on the meaningfulness of the question items. This size was guided by the suggestion by Fink (2003b in Saunders et al 2007) that the minimum of ten (10) members for pre-testing is adequate

## QUESTIONNAIRE FOR PROSPECTIVE CUSTOMERS

| | | |
|---|---|---|
| **NAME** | | |
| **DATE OF BIRTH** | | |
| **HEIGHT** | | |
| **WEIGHT** | | |
| **BLOOD PRESSURE** | **Normal** | |
| | **High** | |
| | **Low** | |
| **PERSONAL HEALTH RECORD** | **Healthy** | |
| | **Unhealthy** | |
| **Please specify the disease, if unhealthy** | | |
| **HABITS** | **Liquor** | **Heavy/ mild** |
| | **Tobacco** | **Heavy/ mild** |
| | **Smoking** | **Heavy/ mild** |
| | **None** | |
| **DRIVING** | **Self drive** | |
| | **Driver** | |
| | **Other conveyance** | |
| **Mention accident, if any** | | |
| **INSURANCE HISTORY OF FAMILY** | **Father** | |
| | **Mother** | |
| | **Siblings** | |

| | | |
|---|---|---|
| **OCCUPATION** | **Business** | |
| | **Service** | |
| | **Agriculture** | |
| | **Retired** | |
| | **House wife** | |
| **JOB PROFILE** | **Company** | |
| | **Designation** | |
| | **Annual income** | |
| | **Qualification** | |
| | **Length of service** | |
| | **Nature of work** | |

## RELEVANCE OF QUESTIONNAIRE

- The column '**date of birth'** specifies the risk involved with the life of individual because as we grow older the probability of death increases. Thus if an individual is of an age more than 50 yrs, company can ask for extra premium. Else according to the range of age an individual falls, company can ask for medical report to confirm he is healthy.
- The column '**height & weight'** specifies that the individual is overweight or not. Because, if an individual is overweight then he become more prone to diseases. So he is a risky customer to company. Company can ask to pay extra premium.
- **'Personal health record'** is again for medical ground. If the individual is suffering from critical disease, then his death is sure. In such case company will not insure him at all. But in some cases, company insures the individual at extra premium. Such a case comes under medical underwriting dealt at head office.
- **'Habits'** are again to specify the risk involved in insuring an individual. Since, a person who drinks or smokes heavily shortens his life cycle. So, he is a risky customer to company. Company should charge more from such individuals.
- **'Driving habit'** of individual also specify the risk involved in insuring such individual. If, individual uses driver or other conveyance, the risk involved is less then if he drive himself. Any record of accident while driving confirms the risk involved.
- **'Insurance history of individual'** specify for any hereditary disease in the family. In such a case where the individual suffer from any hereditary disease then risk is more. So company can charge extra premium.
- **'Occupation'** specifies the kind of job an individual perform which defines the risk exposed to him. Insuring such an individual is risky for insurer. So, company can either ask for more premiums according to kind of risk exposed to individual or may not insure him at all.

## WEIGHTAGE CRITERIA

| | | | | | | | | Highest score | Lowest score |
|---|---|---|---|---|---|---|---|---|---|
| Age | > 35 yrs | 36-45 yrs | 46-55 yrs | 56+ | | | | | |
| Weight | 4 | 3 | 2 | 1 | | | | | |
| Score | 7*4=28 | 7*3=21 | 7*2=14 | 7*1=7 | | | | 28 | 7 |
| | | | | | | | | | |
| Height & weight | Normal | Fatty | | | | | | | |
| Weight | 2 | 1 | | | | | | | |
| Score | 14*2=28 | 14*1=14 | | | | | | 28 | 14 |
| | | | | | | | | | |
| BP | Normal | Low/ high | | | | | | | |
| Weight | 2 | 1 | | | | | | | |
| Score | 14*2=28 | 14*1=14 | | | | | | 28 | 14 |
| | | | | | | | | | |
| Personal health | Healthy | Unhealthy | | | | | | | |
| Weight | 2 | 1 | | | | | | | |
| Score | 14*2=28 | 14*1=14 | | | | | | 28 | 14 |
| | | | | | | | | | |
| Habits | None | Mild 1 | Mild 2 | Mild all | Heavy 1 | Heavy 2 | Heavy all | | |
| Weight | 7 | 6 | 5 | 4 | 3 | 2 | 1 | | |
| Score | 4*7=28 | 4*6=24 | 4*5=20 | 4*4=16 | 4*3=12 | 4*2=8 | 4*1=4 | 28 | 4 |
| | | | | | | | | | |
| Driving | Others | Self | | | | | | | |
| Weight | 2 | 1 | | | | | | | |
| Score | 14*2=28 | 14*1=14 | | | | | | 28 | 14 |
| | | | | | | | | | |
| Insurance history | Healthy | disease | | | | | | | |
| Weight | 2 | 1 | | | | | | | |
| Score | 14*2=28 | 14*1=14 | | | | | | 28 | 14 |
| | | | | | | | | | |
| Annual income | 7 lacs+ | 7-5 lacs | 5-3 lacs | <3 lacs | | | | | |
| Weight | 4 | 3 | 2 | 1 | | | | | |
| Score | 7*4=28 | 7*3=21 | 7*2=14 | 7*1=7 | | | | 28 | 7 |
| | | | | | | | | | |
| Nature of work | Desk work | Field work | | | | | | | |
| Weight | 2 | 1 | | | | | | | |
| Score | 14*2=28 | 14*1=14 | | | | | | 28 | 14 |
| | | | | | | | Total | 252 | 92 |

## CRITERIA OF RISK CATEGORIZATION

### CATEGORY A :-

**SCORE = 100 % to 84 %**

Here is the ideal candidate for the category A:

- You are the ideal weight for your height.
- You have an excellent health history with no serious or chronic illnesses or ailments.
- Your immediate family has no history of cardiovascular disease or internal cancer before the age of 60.
- You've never smoked, or if you have you've quit for at least five years.
- You don't participate in high-risk recreational or occupational activities such as hang gliding, rock climbing, motorized racing, offshore drilling, mining, etc.
- Your recent financial standing is excellent.
- You have good average blood pressure readings of about 140/85 or less.
- You have a very clean driving record with no more than one or two moving violations in the last three years and no reckless-driving convictions in the last 5+ years.
- You've never required treatment for drug or alcohol abuse.

### CATEGORY B :-

**SCORE = 83.99 % to 68%**

This category is a substandard category. The candidate of this category is not an ideal candidate as Category A.

**CATEGORY C:-**

**SCORE = 67.99% to 52%**

This category is substandard to Category B.

**CATEGORY D:-**

**SCORE = 51.99% to 36.50 %**

This category is substandard to Category C.

**QUESTIONNAIRE FOR COMPANIES**

1. In which categories have you divided age factor of consumer to underwrite risk?

……………………………………………………………………………………………………………
…………………………………………………

2. In which categories have you divided body buildup (height & weight) of consumer to underwrite risk?

……………………………………………………………………………………………………………
…………………………………………………

3. In which categories have you divided physical condition (medical) of consumer to underwrite risk?

……………………………………………………………………………………………………………
…………………………………………………

4. In which categories have you divided family history of consumer to underwrite risk?

……………………………………………………………………………………………………………
…………………………………………………

5. In which categories have you divided occupation factor of consumer to underwrite risk?

……………………………………………………………………………………………………………
…………………………………………………

6. In which categories have you divided nature of work of consumer to underwrite risk?

……………………………………………………………………………………………………………
…………………………………………………

7. In which categories have you divided income of consumer to underwrite risk?

……………………………………………………………………………………………………………
…………………………………………………

8. In which categories have you divided habits (drinking, smoking and driving) of consumer to underwrite risk?

……………………………………………………………………………………………………………
…………………………………………………

9. In which categories have you divided qualification of consumer to underwrite risk?

……………………………………………………………………………………………………………
…………………………………………………

- Please state any other factors if you consider to underwrite risk?

……………………………………………………………………………………………………………
…………………………………………………

# CHAPTER 9

# Data analysis, Discussion and Interpretation of the results


## 9.1 PRESENTATION OF DATA COLLECTED FROM FILLING QUESTIONNAIRE FOR PROSPECTIVE CUSTOMERS


## 9.2 RESPONDENTS DEMOGRAPHIC


## 9.3 CORRELATION BETWEEN FACTORS AND RESULT


## 9.4 INTERPRETATION OF DATA

## 9.5 RESPONSE TO QUESTIONNAIRE FOR COMPANIES

## 9.1 PRESENTATION OF DATA COLLECTED FROM FILLING QUESTIONNAIRE FOR PROSPECTIVE CUSTOMERS

| **FEATURES** | | **A** | **B** | **C** | **D** |
|---|---|---|---|---|---|
| TOTAL | | 92 | 68 | 28 | 12 |
| PERCENTAGE | | 46% | 34% | 14% | 6% |
| **AGE** | <35 YRS | 54 (58.69%) | 11 (16.17%) | 2 (7.14%) | 0 |
| | 36- 45 YRS | 15 (16.30%) | 7 (10.29%) | 5 (17.85) | 1 (8.33%) |
| | 46 – 55 YRS | 13 (14.13%) | 31 (45.58%) | 14 (50%) | 5 (41.67%) |
| | 56+ YRS | 10 (10.86%) | 19 (27.94%) | 7 (25%) | 6 (50.00%) |
| **INCOME** | 7 LAC + | 30 (32.60%) | 8 (11.76%) | 3 (10.71%) | 0 |
| | 7- 5 LACS | 39 (42.39%) | 31 (45.58%) | 4 (14.28%) | 1 (8.33%) |
| | 5 – 3 LACS | 8 (8.69%) | 23 (33.82%) | 18 (64.28%) | 3 (25%) |
| | <3 LACS | 0 | 0 | 3 (10.71%) | 3 (25%) |
| | INCOME NOT DISCLOSED | 15 (16.30%) (BUSI= 5,HW=2,R=6, AG=2) | 6 (8.82%) (BUSI=2, R=1, HW=2, AG=1) | 0 | 5 (41.66%) (R=5) |
| **HABITS** | NONE | 24 (26.08%) | 21(30.88%) | 1 (3.57%) | 0 |
| | MILD 1 | 38 (41.30%) | 29(42.64%) | 7 (25%) | 6 (50%) |
| | MILD 2 | 22 (23.91%) | 8 (11.76%) | 8 (28.57%) | 4 (33.33%) |
| | HEAVY 1 | 8 (8.69%) | 10(14.70%) | 12 (42.85%) | 2(16.66%) |

## 9.2 RESPONDENTS DEMOGRAPHIC

| VARIABLE | CATEGORY | NUMBER | PERCENTAGE |
|---|---|---|---|
| **GENDER** | MALE | 114 | 57% |
| | FEMALE | 86 | 43% |
| **AGE** | <35 YRS | 67 | 33.50% |
| | 36- 45 YRS | 28 | 14% |
| | 46 – 55 YRS | 63 | 31.50% |
| | > 56 YRS | 42 | 21% |
| **OCCUPATION** | Business class | 35 | 17.50% |
| | Govt. employee | 20 | 10% |
| | Manufacturing sector | 55 | 27.50% |
| | Service sector | 70 | 35% |
| | Others including house wife & retired person | 20 | 10% |
| **INCOME** | <3 LACS | 6 | 3% |
| | 3 TO 5 LACS | 52 | 26% |
| | 5 TO 7 LACS | 75 | 37.50% |
| | > 7 LACS | 41 | 20.50% |
| | NOT DISCLOSED | 26 | 13% |

This table represents that there were more number of male respondents than female. Here the sex ratio is 75 per 100. As per the census table of 2011, the sex ratio of Chittorgarh is 972 per thousand. Majority of respondents in this study were below 35 years of age. Additionally, there were a group of respondent who did not participate in any economic activity but majority of respondents belonged to service sector. The majority of respondents fall under income category of 5 to 7 lacs annual income.

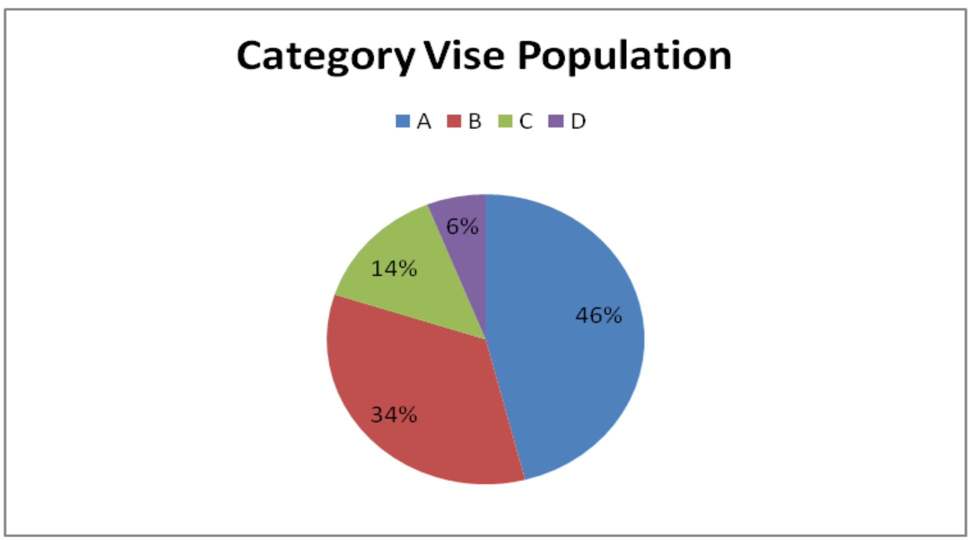
Inspite of stratified sampling, the sample is not evenly distributed.

## 9.3 CORRELATION BETWEEN FACTORS AND RESULT

| FACTOR | | CORRELATION WITH RESULT |
|---|---|---|
| AGE | > 35 | 0.872505 |
| | 36-45 | 0.940784 |
| | 46-55 | 0.50487 |
| | 56+ | 0.548661 |
| INCOME | >7 | 0.898038 |
| | 7 to 5 | 0.988128 |
| | 5 to 3 | 0.239521 |
| | < 3 | -0.94679 |
| HABITS | none | 0.973337 |
| | mild 1 | 0.987205 |
| | mild 2 | 0.853914 |
| | heavy 1 | 0.371126 |

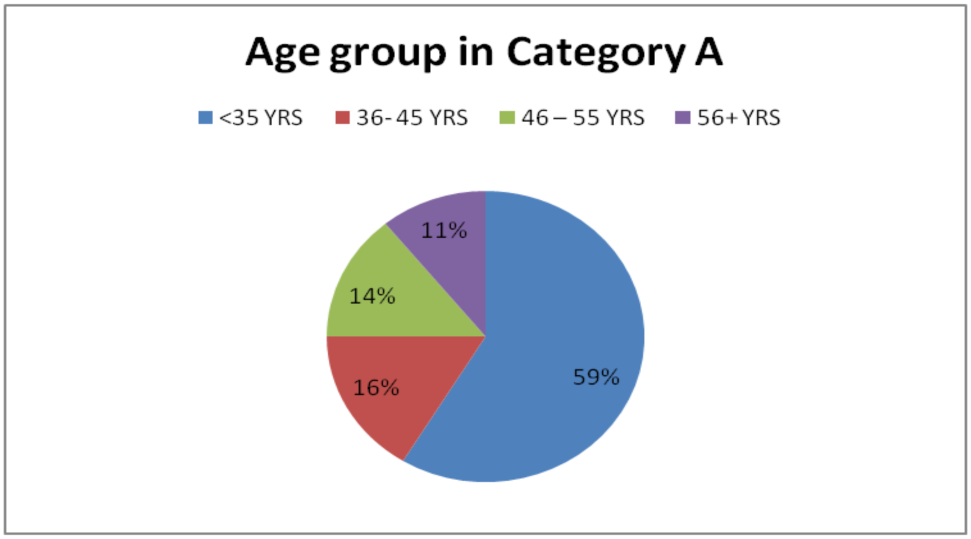
## 9.4 INTERPRETATION OF DATA

1. **The total population of Chittorgarh which can be insured can be categorized as follows as per the risk they are exposed to:-**



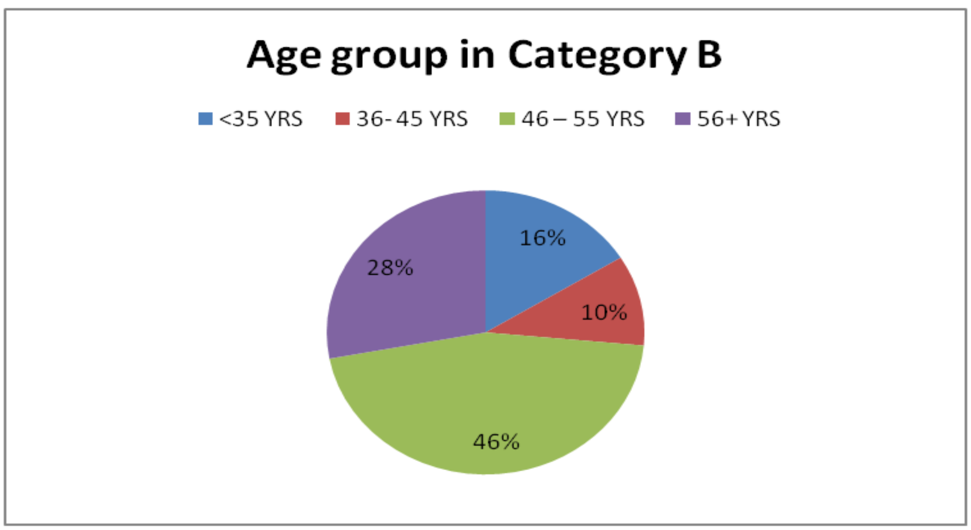

46% of population falls in Category A hence there are ample customers in Chittorgarh region who can be insured with minimal risk for insurance company.

2. **The percentage of people of different age group in Chittorgarh region who fall in Category A are as follows:-**



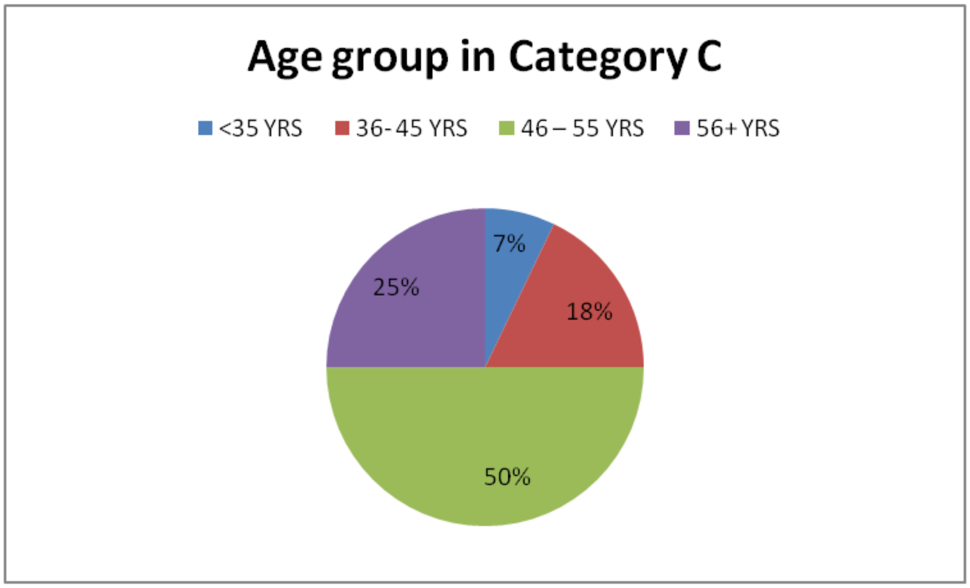

The people who fell in category A were mostly of young age as 59% people were below 35 yrs age. Chittorgarh is an attractive place for insurance company as it has ample young population.

3. **The percentage of people of different age group in Chittorgarh region who fall in Category B are as follows:-**



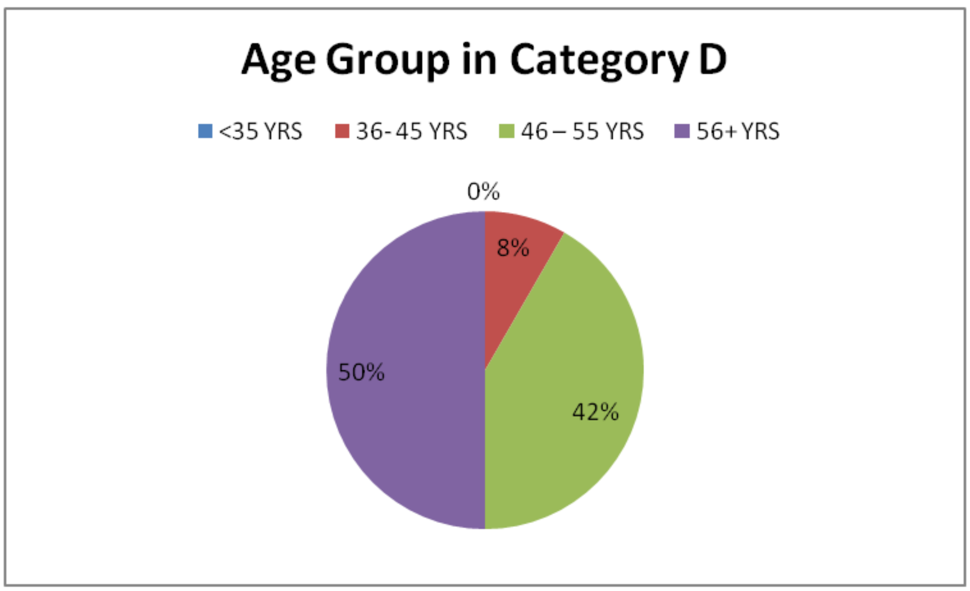

The people who fell in category B were of older age. Only 16 % people were below 35 yrs of age while mostly people fell in 46-55 yrs. Company must avoid giving insurance to those people who are above 56 yrs of age if it has a choice.

4. **The percentage of people of different age group in Chittorgarh region who fall in Category C are as follows:-**



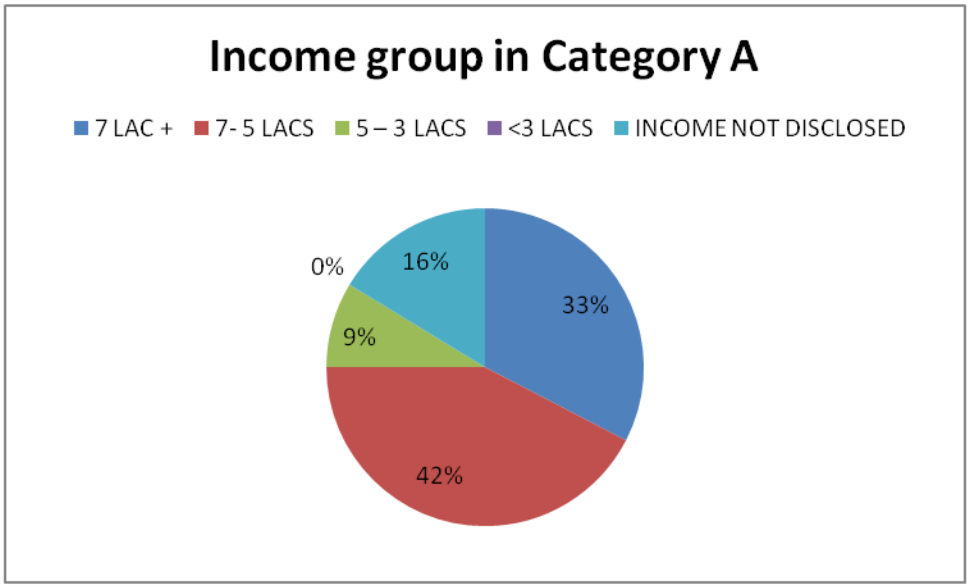

The people who fell in Category C were mostly of 46-55 yr age group. They are not very ideal people to be insured. Company should give preference to younger people to give insurance.

5. **The percentage of people of different age group in Chittorgarh region who fall in Category D are as follows:-**



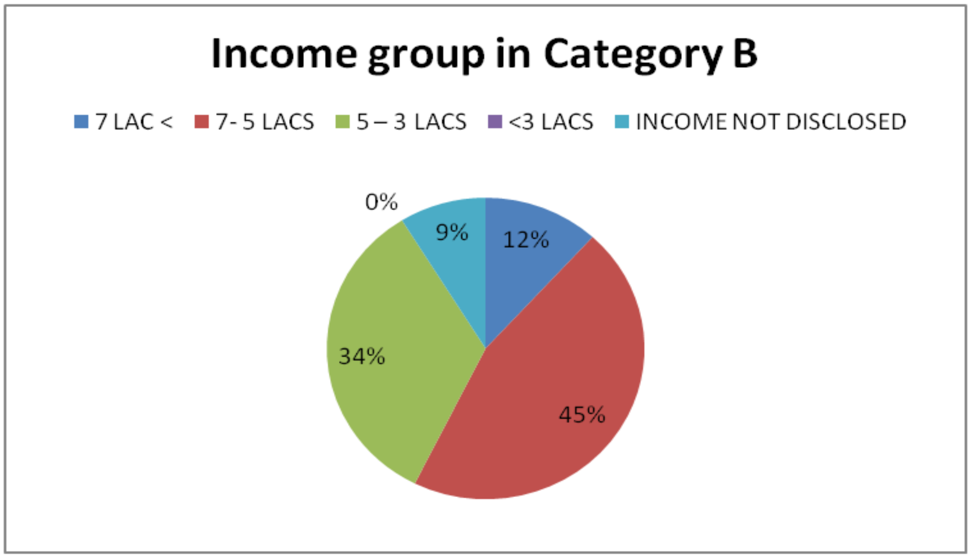
Category D people mostly belong to 56+ age group. They are not the ideal group to be insured. Company should not give insurance to such people.

6. **The percentage of people of different income group in Chittorgarh region who fall in Category A are as follows:-**



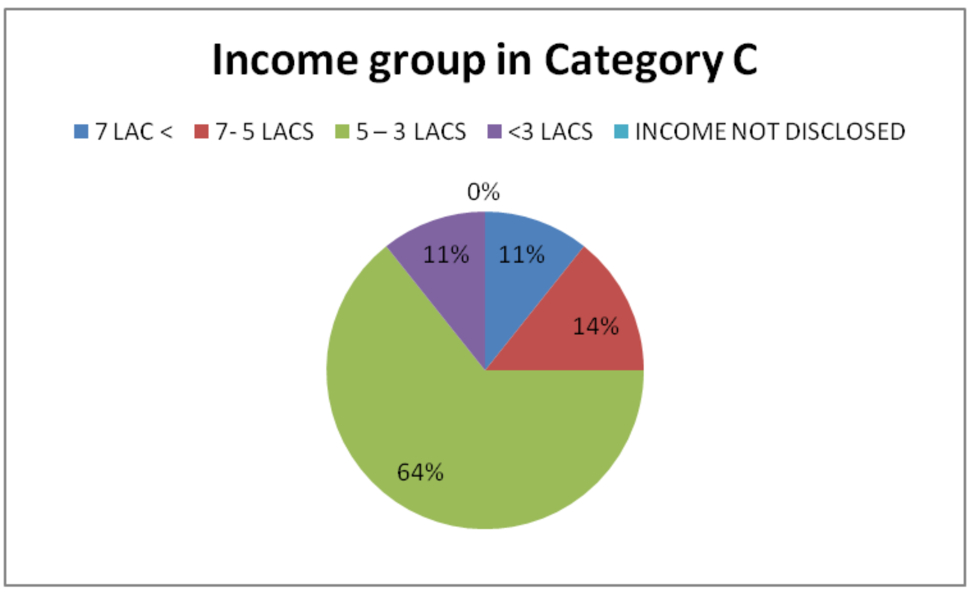

16% people who fell in category A did not disclose their income group. Income ensures the timely premium payment. Hence a person whose income is not disclosed is not a very ideal person to be insured.

7. **The percentages of people of different income group in Chittorgarh region who fall in Category B are as follows:-**



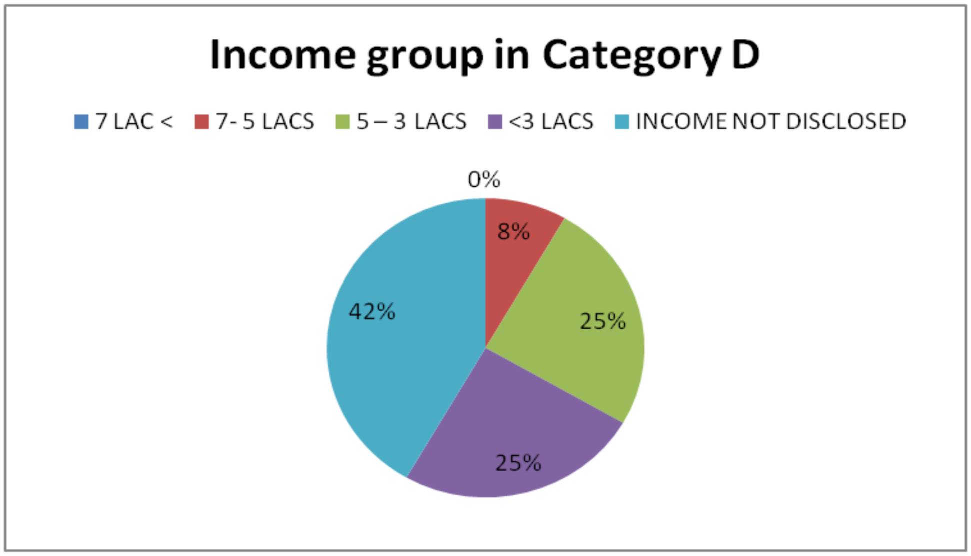

The people who fall in category B mostly belong to average income group. Company must ensure that the person they are insuring is capable enough to pay premium.

8. **The percentage of people of different income group in Chittorgarh region who fall in Category C are as follows:-**



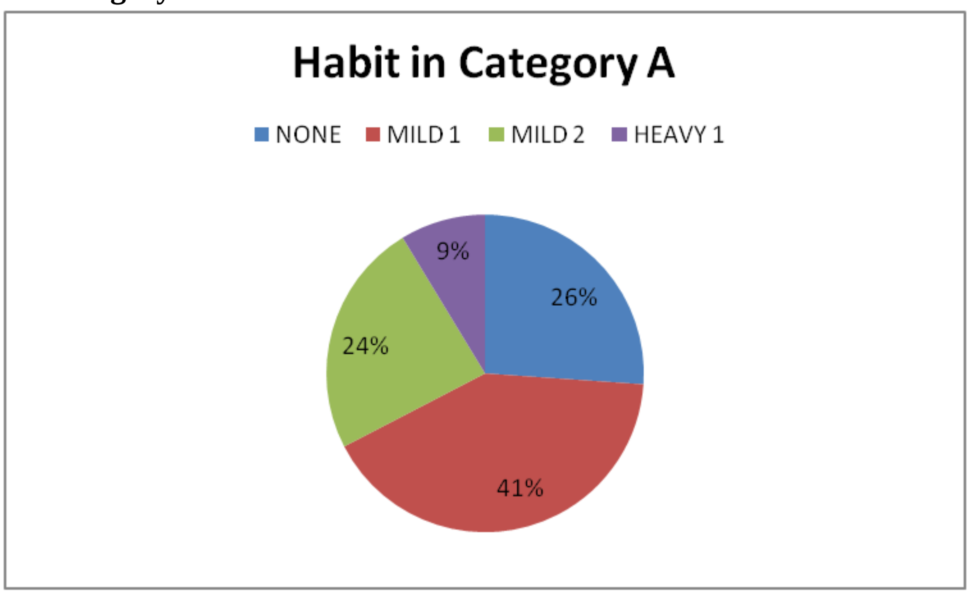

Mostly people who fall in category C belonged to average income group. Inspite of the fact that these people are capable to pay premium they fall in risk category, company should try to avoid giving insurance to such people.

9. **The percentage of people of different income group in Chittorgarh region who fall in Category D are as follows:-**



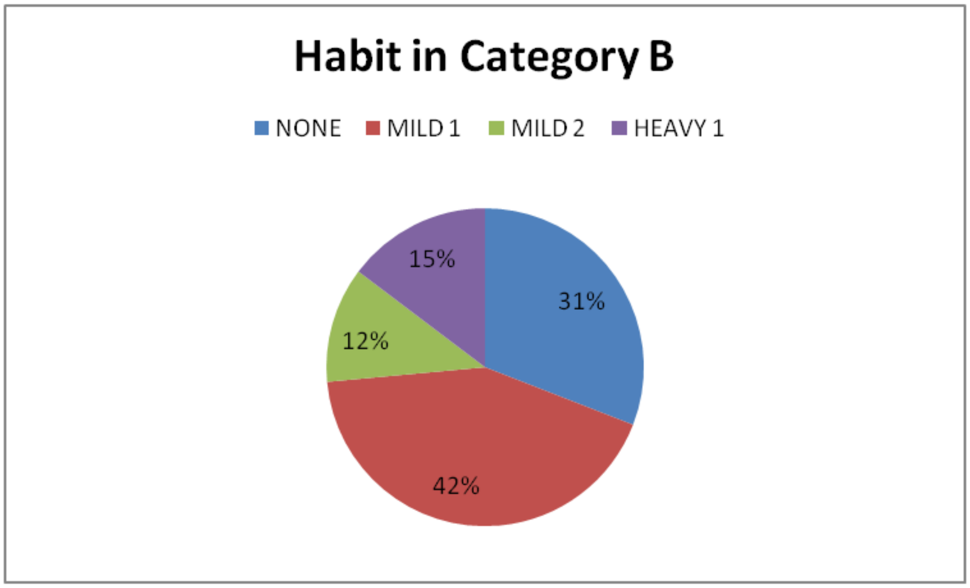

The people who fall in category D either belong to income group 3-5 lac. or has not disclosed their income. It may be the case that the person belonging to D category is capable to pay premium but company must not give insurance to such person.

**10. The percentage of people of different habits in Chittorgarh region who fall in Category A are as follows:-**



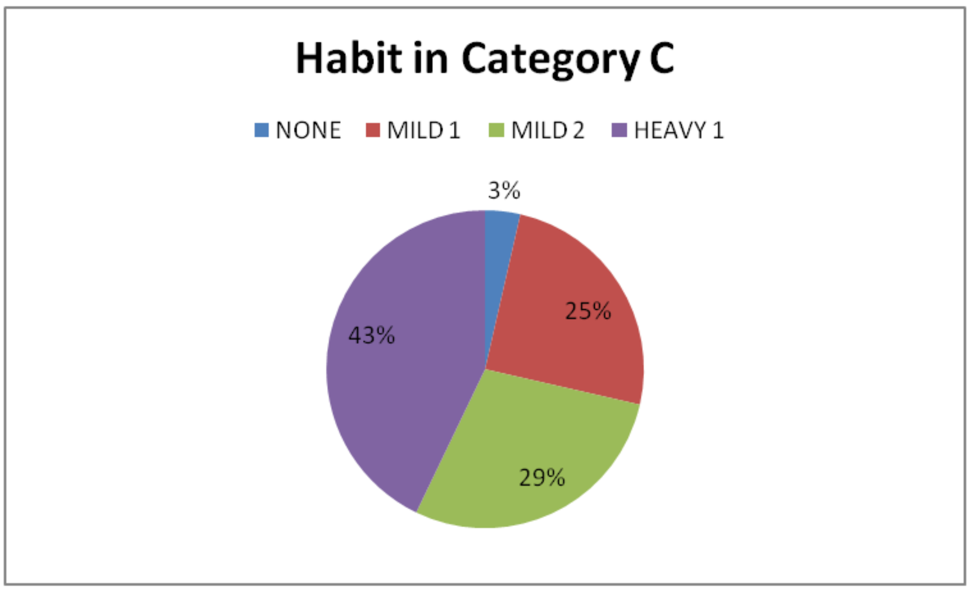

26 % of population of Chittorgarh does not have any bad habits. That is one of the reason why mostly people fall in Category A.

**11. The percentage of people of different habits in Chittorgarh region who fall in Category B are as follows:-**



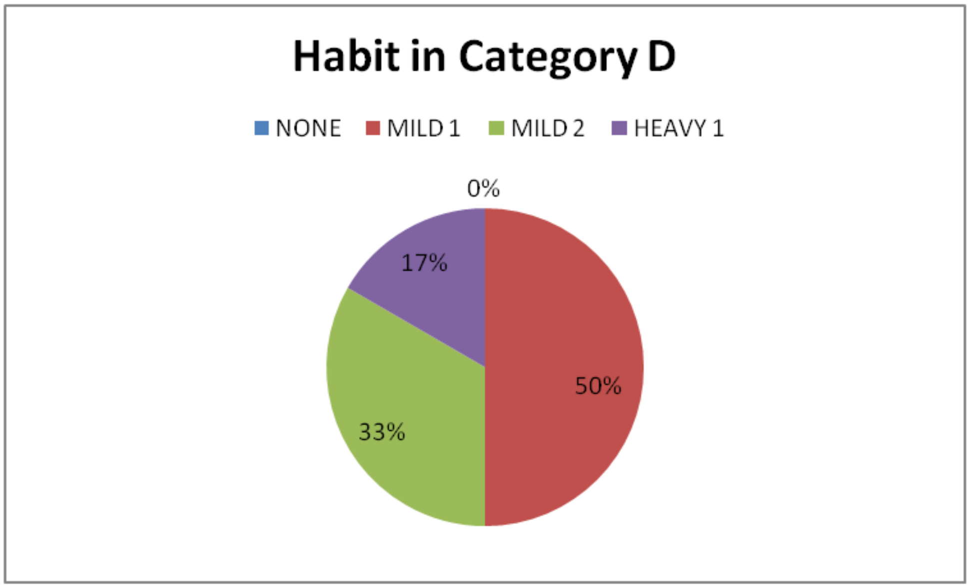

The people falling in Category B either do not have bad habits or they have mild bad habits which comprises to 73% of population. It is less risky to insure such persons.

12. **The percentage of people of different habits in Chittorgarh region who fall in Category C are as follows:-**



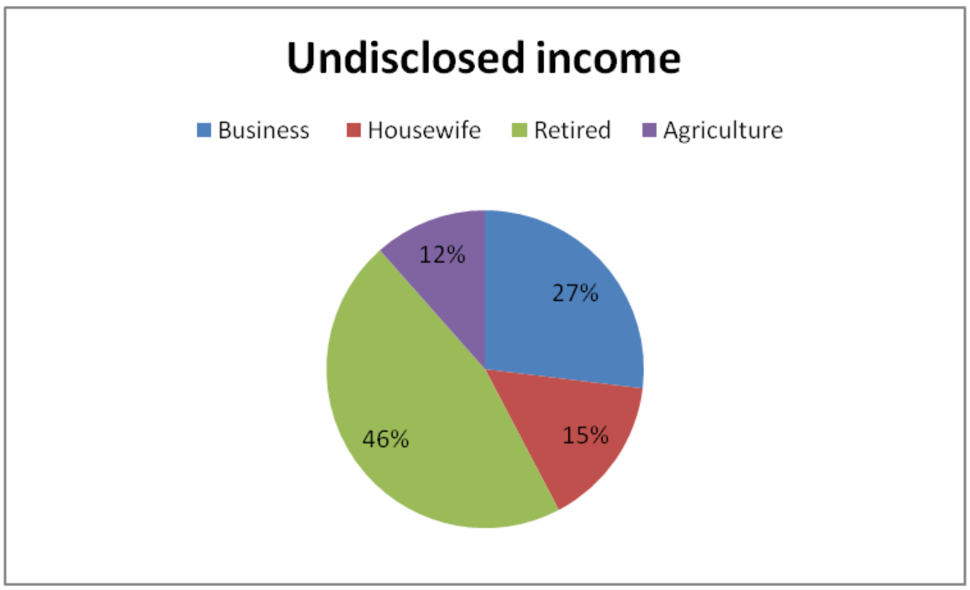

The people falling in C category have bad habits. They are atleast consuming two or more products which are not good for their health. Company must avoid insuring persons falling in C category.

13. **The percentage of people of different habits in Chittorgarh region who fall in Category D are as follows:-**




The person falling in D category has bad habits. Company must not insure such a person whose health may be an issue in future.

**14. The percentage of people who did not disclosed their income**




46% of people who have not disclosed their income are retired. Hence, they don't have any source of income. Additionally, housewives which comprise 15% of population also don't have any source of income. So it is require ensuring the premium payments before insuring such people.

## 9.5 RESPONSE TO QUESTIONNAIRE FOR COMPANIES

In which categories have you divided age factor of consumer to underwrite risk?

| COMPANY NAME | RESPONSE |
|---|---|
| HDFC Life | < 40 yrs |
| | 40-55 yrs |
| | > 55 yrs |
| SBI Life insurance | Minor |
| | Major |
| Life insurance corporation of India | < 8 yrs |
| | 8-18 yrs |
| | 18 < yrs |
| ICICI Prudential | < 30 yrs |
| | 30 to 40 yrs |
| | 40 to 50 yrs |
| | 50 to 60 yrs |
| | 60 < yrs |
| Bajaj Allianz | < 40 yrs |
| | 40-55 yrs |
| | > 55 yrs |
| Birla Sun Life | < 40 yrs |
| | 40-55 yrs |
| | > 55 yrs |
| Sahara life | Minor |
| | Major |

In which categories have you divided body buildup (height & weight) of consumer to underwrite risk?

| COMPANY NAME | RESPONSE |
|---|---|
| HDFC Life (as per BMI- body mass index) | Normal |
| | Under weight |
| | Over weight |
| SBI Life insurance (as per BMI- body mass index) | Normal |
| | Under weight |
| | Over weight |
| Life insurance corporation of India | < 17 BMI |
| | 17-25 BMI |
| | 25 < BMI |
| ICICI Prudential | Ideal |
| | Not ideal |
| Bajaj Allianz | < 17 BMI |
| | 17-25 BMI |
| | > 25 BMI |
| Birla Sun Life | Normal |
| | Under weight |
| | Over weight |
| Sahara life | < 17 BMI |

| | |
|---|---|
| | 17-25 BMI |
| | > 25 BMI |

In which categories have you divided physical condition (medical) of consumer to underwrite risk?

| COMPANY NAME | RESPONSE |
|---|---|
| HDFC Life | Normal |
| | Pre existing |
| | Future expectation |
| SBI Life insurance | Any Critcal illness |
| Life insurance corporation of India | Any medical surgery in past 5 years |
| | Body deformity |
| | Pregnancy |
| ICICI Prudential | Any deformity |
| | Any surgery in past |
| Bajaj Allianz | Diabetes/ Cancer/ High BP/ Heart disease |
| Birla Sun Life | Any Critcal illness |
| | Pregnancy |
| | Normal |
| Sahara life | Accident in past 5 years |
| | Surgery in past five year |
| | Long term disease |

In which categories have you divided family history of consumer to underwrite risk?

| COMPANY NAME | RESPONSE | |
|---|---|---|
| HDFC Life | Parents health condition | |
| | Sibling health condition | |
| SBI Life insurance | Alive | |
| | Not alive (give reason of death) | |
| Life insurance corporation of India | Parents alive | |
| | Not alive (give reason of death) | |
| ICICI Prudential | Parents alive | |
| | Not alive (reason) | Heart disease |
| | | Diabetes |
| | | Mellitus |
| | | Cancer |
| | Died before 55 yrs of age | |
| Bajaj Allianz | Alive | Age |
| | Not – alive | Age when died |
| | | Cause of death |

| | | |
|---|---|---|
| Birla Sun Life | Alive | Age |
| | Not – alive | Age when died |
| | | Cause of death |
| Sahara life | Alive | Age |
| | Not – alive | Age when died |
| | | Cause of death |

In which categories have you divided occupation factor of consumer to underwrite risk?

| COMPANY NAME | RESPONSE |
|---|---|
| HDFC Life | Exposed to occupational hazard |
| | Not exposed |
| SBI Life insurance | Hazardous |
| | Non- hazardous |
| Life insurance corporation of India | Hazardous |
| | Non- hazardous |
| ICICI Prudential | Hazardous |
| | Non- hazardous |
| Bajaj Allianz | Hazardous |
| | Non- hazardous |
| Birla Sun Life | Hazardous |
| | Non- hazardous |
| Sahara life | Hazardous |
| | Non- hazardous |

In which categories have you divided nature of work of consumer to underwrite risk?

| COMPANY NAME | RESPONSE |
|---|---|
| HDFC Life | Manual |
| | Managerial |
| | Supervisory |
| | Administrative |
| SBI Life insurance | With standard income proof |
| | Without standard income proof |
| Life insurance corporation of India | Mines |
| | Driver |
| | Electrician |
| | Mechanic |
| | Others |
| Bajaj Allianz | Salaried |
| | Business |
| | Professional |

| | |
|---|---|
| | Agriculture |
| | Retired |
| | Student |
| | Unemployed |
| | House wife |
| Birla Sun Life | |
| Sahara life | |

In which categories have you divided income of consumer to underwrite risk?

| COMPANY NAME | RESPONSE |
|---|---|
| HDFC Life | Salaried |
| | Self employed/ Businessman |
| | Professionals |
| | Housewife (in case of women) |
| SBI Life insurance | High income |
| | Low income |
| Life insurance corporation of India | A Sum Assured 25 times of income for age below 35 |
| | A Sum Assured 10 times of income for age above 45 |
| ICICI Prudential | Nil |
| | Upto 1 lac |
| | 1 lac to 10 lac |
| | > 10 lac |
| Bajaj Allianz | Income tax payer |
| | Non- Income tax payer |
| Birla Sun Life | High income |
| | Low income |
| Sahara life | Income tax payer |
| | Non- Income tax payer |

In which categories have you divided habits (drinking, smoking and driving) of consumer to underwrite risk?

| COMPANY NAME | RESPONSE |
|---|---|
| HDFC Life | Health |
| | Occupation |
| SBI Life insurance | Adventurous hobbies/activities |
| | Non- adventurous |
| Life insurance corporation of India | Alcoholic |
| | Narcotics |
| | Tobacco |
| ICICI prudential | Alcoholic |

| | |
|---|---|
| | Narcotics |
| | Tobacco |
| Bajaj Allianz | Alcoholic |
| | Narcotics |
| | Tobacco |
| Birla Sun Life | Alcoholic |
| | Narcotics |
| | Tobacco |
| Sahara life | Alcoholic |
| | Narcotics |
| | Tobacco |

In which categories have you divided qualification of consumer to underwrite risk?

| COMPANY NAME | RESPONSE |
|---|---|
| HDFC Life | SSC |
| | HSC |
| | Graduate |
| | None |
| SBI Life insurance | Illiterate |
| | Below graduate |
| | Graduate |
| | Post- graduate |
| Life insurance corporation of India | Literate |
| | Illiterate |
| ICICI Prudential | Undergraduate |
| | Graduate |
| | Post graduate |
| | Professional |
| Bajaj Allianz | Non- matric |
| | Matric |
| | Graduation and higher |
| | None |
| Birla Sun Life | Literate |
| | Illiterate |
| Sahara life | Undergraduate |
| | Graduate |
| | Post graduate |
| | Professional |

- Please state any other factors if you consider to underwrite risk?

<table>
<tr><th>COMPANY NAME</th><th colspan="3">RESPONSE</th></tr>
<tr><td rowspan="4">HDFC Life</td><td rowspan="3">Country in which client reside</td><td colspan="2">NRI</td></tr>
<tr><td colspan="2">PIO</td></tr>
<tr><td colspan="2">OCI</td></tr>
<tr><td colspan="3">Financial status</td></tr>
<tr><td rowspan="3">SBI Life insurance</td><td colspan="3">Amount of SA</td></tr>
<tr><td colspan="3">Amount of Term</td></tr>
<tr><td colspan="3">Premium installments</td></tr>
<tr><td rowspan="2">Life insurance corporation of India</td><td colspan="3">No. of previous policies</td></tr>
<tr><td colspan="3">Standard age proof</td></tr>
<tr><td rowspan="3">ICICI Prudential</td><td rowspan="3">Marital status</td><td colspan="2">Single</td></tr>
<tr><td colspan="2">Married</td></tr>
<tr><td colspan="2">Widow</td></tr>
<tr><td rowspan="4">Bajaj Allianz</td><td rowspan="4">Marital status</td><td colspan="2">Single</td></tr>
<tr><td colspan="2">Married</td></tr>
<tr><td colspan="2">Divorced</td></tr>
<tr><td colspan="2">Widow</td></tr>
<tr><td rowspan="2">Birla Sun Life</td><td rowspan="2">Gender</td><td colspan="2">Male</td></tr>
<tr><td>Female</td><td>Pregnant or not</td></tr>
<tr><td rowspan="2">Sahara life</td><td rowspan="2">Dependence on income</td><td colspan="2">High</td></tr>
<tr><td colspan="2">Low</td></tr>
</table>

# CHAPTER 10

# FINDINGS, RECOMMENDATIONS, SUGGESTIONS & CONCLUSION


## 10.1 FINDINGS OF DATA


## 10.2 RECOMMENDATION


## 10.3 SUGGESTIONS AND CONCLUSIONS

## 10.1 FINDINGS OF DATA COLLECTED FROM FILLING QUESTIONNAIRE FOR PROSPECTIVE CUSTOMERS

1. In this study, we had divided prospective customers into four category as per risk attached to them. Category C & D are the category of people who are risky to be insured. The study shows that they comprise 40% of population.
2. This study shows that 59% people of Category A are below 35 yrs of age. It shows that majority of people of Category A are young.
3. The study further shows that only 11% population of Chittorgarh is above 56 years of age in Category A.
4. The study reveals a descending pattern in income group category vise. Category A belongs to higher income group and Category D belongs to lower income group.
5. The income and age group data shows that an elderly person as well as a low income person can also fall in Category A. while a young person with bad habits may fall into C or D category.
6. The study suggests that whether a person is ideal to be insured or not cannot be judged on the basis of a single factor.
7. The study further shows that 17% people of Category A have not disclosed their income. But income is an important part while insuring someone. Income ensures regular premium payment.
8. The study also shows that the people who did not disclose their income were either housewife, retired or had agriculture as their occupation. Only very few businessman were there who did not disclose their income.
9. The study shows that 46% people were retired and 15% housewife, both does not have any source of income. 12% of people belong to agriculture and 27% people belong to business, which had income but did not disclose them.
10. There were 39% people who had income but did not disclose. It may be because of lack of trust.
11. The study shows that the average income of people of chittorgarh is 3 to 5 lac.
12. The study shows that the people who fell in Category A & B had either no bad habit or very mild bad habit.
13. The study further reveals that the people falling in category C & D were exposed to bad habits and had risked their life.
14. The study shows that the people who fell in category C & D were elderly aged, with low income and bad habits. All these factors made them unsuitable for insurance companies as a prospective customer.

## 10.2 RECOMMENDATION

1. An insurance company should improve its risk management tool so that it covers all kinds of risk associated with a prospective customer.
2. A CRO should have knowledge of all the risks that an insurance company is exposed to.
3. A CRO must balance the cost of risk management so that it does not exceed the loss from risk.
4. The main soul of risk management is its framework. If the risk management framework is effective then the person handling it will bring positive result.
5. The risk management tool/ framework should also be measured time to time in terms of stronger business performance, better decision making, improved returns and better approach toward uncertainties.

## 10.3 SUGGESTIONS AND CONCLUSION

1. An insurance company is in business of mitigating risk but it itself is exposed to so many risk. One of such risk is insuring a person whose claim may exceed the amount of premium he had paid resulting into loss for organization.
2. Pooling of insured reduces such risk but what if company does not follow any strategy and make a pool of risky customers.
3. One of the mode of marketing in insurance sector is aggressive selling thus there are chances that a sales manager pick up a risky person as a prospective customer to fulfill his target.
4. This is the reason why companies underwrite risk. So that company can charge different premiums from different customers for same sum assured.
5. Every company has its own calculators to calculate premium.
6. This study is just an effort to take an insight into the probability that an insurance company picks up a risky customer for insurance when there are so many less risky customers out there. You can call it as an opportunity cost for company.

## REFERENCES


Agarwal RF “Role information technology in the insurance Industry”charted secretary Aug 2001 pp 235-237

Alreck, P.L. and Settle, R.B., 1999. Strategies for building consumer brand preference. *Journal of product & brand management*, *8*(2), pp.130-144.

Aloke Tewary “Insurance - The latest Buzzword in the Indian Economy” Banking, Finance Jan 2003 pp 10-12.

Arunajatesan,“Insurance in India and Future Prospects”, Management Matter, Sept. 2002, P-53-55.

Bajpai, G.N., 2002. The Challenges before the Insurance Industry in India.*The Journal of Insurance Institute of India*, *28*, pp.3-5.

Bakshi, R.S., 2002. Strategies for Indian Insurance Companies–Post Liberalisation. *Vision: The Journal of Business Perspective*, *6*(2), pp.41-52.

Bakhshi, S., 2005. Integrated Approach: Key to Growth and Development.*Vikalpa*, *30*(3).

Basu, J. and Sekhar, C., 2000. Insuring the Profits. *ICFAI, Reader*, pp.55-57.

Bitner, M.J., Booms, B.H. and Mohr, L.A., 1994. Critical service encounters: The employee's viewpoint. *The Journal of Marketing*, pp.95-106.

Bhat, R. and Dixit, M.R., 2005. Bancassurance–Exploiting an Opportunity with Partnerships. *Vikalpa: The Journal for Decision Makers*, *30*(3), pp.111-115.

Bodla, B.S. and Verma, S.R., 2007. Life Insurance Policies in Rural Area: Understanding Buyer Behavior. *ICFAI Journal of Services Marketing*, *5*(4).

Cawley, J. and Philipson, T., 1996. *An empirical examination of information barriers to trade in insurance* (No. w5669). National bureau of economic research.

Chiappori, P.A., Jullien, B., Salanié, B. and Salanie, F., 2006. Asymmetric information in insurance: General testable implications. *The RAND Journal of Economics*, *37*(4), pp.783-798.

Churchill, G.E., 2014. *Compound Interest Simplified: The Commonwealth and International Library: Social Administration, Training, Economics, and Production Division*. Elsevier.

Clemons, E.K., Hitt, L.M. and Croson, D.C., 2000, September. The future of retail financial services: Transparency, bypass, and differential pricing. In*The E-Business Transformation: Sector Developments and Policy Implications Conference* (pp. 26-27).

Freeman, H. ed., 1948. *Actuarial Statistics: Construction of mortality & other tables, by JL Anderson and JB Dow* (Vol. 2). published for the Institute of Actuaries and the Faculty of Actuaries, at the University Press.

Gulati, R., 2000. Study of life insurance market: Products and customers.

J.Vijayavani,"Cost effective Distribution channels of life insurance products",The Journal of Insurance Institute of India, July-December,1999,p.57

Maheshwari, S., 2005. Managing Insurance: Managing the Agents. *Vikalpa*,*30*.

Malliga, R., 2000. Marketing of LIC policies-a study on agents of Tirunelveli division. *Indian Journal of Marketing*, *12*(8-10), pp.6-9.

Marks S. Dorfman, Introduction to Insurance. Prentice Hall, Inc., 2nd ed. 1982. 18.

Modawat, SL,"Two Decades of Life Insurance; a Study in Policyholders Wears and Woes",India n Journal of Commerce, Vol. XXX, Part III, No. 112, September 1997, P. 9-11.

Mony, S.V., 2005. New Initiatives in the Insurance sector: opportunities and challenges. *Vikal pa*, *30*(3), pp.102-105.

Hasanbanu, S. and Nagajothi, P.S., 2007. A study of the insurance perspective in Uthamapalayam taluk. *Indian Journal of Marketing*, *37*(5).

Hofstede, G., 1995. Insurance as a product of national values. *Geneva Papers on Risk and Insurance. Issues and Practice*, pp.423-429.

Huebner, S.S. and Black Jr, K., 1972. Life Insurance. New York: Appleton-Century-Crofts.

Kaliyamoorthy and Suresh,"Emerging Paradigms in the Insurance Sector",JIMS 8 M, July-Sept 2003, P. 29-34

Keerthi, P. and Vijayalakshmi, R., 2009. A study on the expectations and perceptions of the services in private life insurance companies. *SMART Journal of Business Management Studies*, *5*(2), pp.60-64.

Khurana, S., 2008. Customer Preferences in Life Insurance Industry in India.*ICFAI Journal of Services Marketing*, *6*(3).

Kumar, J., 2005. Innovative Environment in Renovated Insurance Industry.*The Insurance Times*, *25*(4).

Krishan Kumar, S.(2005),"LIC Making Inroads into Rural India", Insurance Chronic, P. 42-9.

Krishnamurthy, S., 2005. Insurance sector: Challenges of competition and future scenario. *Vikalpa30 (3)*.

Lengti, S.H., 2009. Insurance Disputes in India. *The IUP Journal of Banking & Insurance Law*, *7*(3), pp.83-90.

Parasuraman, A., Zeithaml, V.A. and Berry, L.L., 1985. A conceptual model of service quality and its implications for future research. *the Journal of Marketing*, pp.41-50.

Parasuraman, A., Zeithaml, V.A. and Berry, L.L., 1988. Servqual. *Journal of retailing*, *64*(1), pp.12-40.

Patil, K.S., 2003. Life Insurance Corporation of India, its products and their performance evaluation: A special reference to Gulbarga District1. *Finance India*, *17*(3), p.1037.

Patil, P.B. and Thakkar, P.N., 2007. Impact of Disinvestment on Banking and Insurance Sectors. *Indian Journal of Marketing*, *37*(5).

Pradeep Gupta and Sanjay Bhyana,"Insurance Sector: Challenges and Strategies", JIMS 8 M Oct-Dec 2002, P 40- 44

Prasad, V.V. and Krishna, B.M., 2009. Insurance sector: Strategies for Intermediation and Marketing. *SMART Journal of Business Management Studies*, *5*(1), pp.9-16.

Pushpa Kumari,"LIC of India: A Catalyst to Development", Journal of Business Perspective, July- Dec 2002, P. 41-52

Rajesham, C. and Rajender, K., 2006. Changing scenario of Indian insurance sector. *Indian Journal of marketing*, *36*(7), pp.9-15.

Raju, S. and Gurupandi, M., 2009. Analysis of the socio-economic background and attitude of the policyholders towards Life Insurance Corporation of India. *SMART Journal of Business Management Studies*,*5*(2), pp.21-26.

Raman, N. and Gayathri, C., 2004. A Study on Customers Awareness Towards New Insurance Companies. *Indian Journal of Marketing*, *34*(1).

Raman, N. and Gayathri, C., 2004. A Study on Customers Awareness Towards New Insurance Companies. *Indian Journal of Marketing*, *34*(1).

Ranade, A. and Ahuja, R., 1999. Life insurance in India: Emerging issues.*Economic and Political Weekly*, pp.203-212.

Rao, D.T., 1999. Life insurance business in India: analysis of performance.*Economic and Political Weekly*, pp.2174-2181.

Ravi Prakash, S., Satyanarayana Chary, T., Shyam Sunder, C., "Globalisation - Its Impact on Insurance Industry", Kakatiaya University, Warangal, AP, Indian Journal of Marketing, Dec.2003, P.5

Sahu, P., Jaiswal, G. and Pandy, V.K., 2009. A study of buying behaviour of consumers towards life insurance policies. *Article No: NRC301 ISSN*, pp.0974-9497.

Samuel, A., 2003. Insurance: The Indian Experience. *Economic Development In India*, *10*, p.71.

Saxena, R., 1986. Marketing of Life Insurance Services.

Selvavinayagam, K. and Mathivanan, R., 2010. A Study on Policyholders Preference and Satisfaction of Services Rendered by Selected Life Insurance Companies in Tamilnadu, Namakal District. *International Journal ofMarketing and Trade policy*, *2*, pp.47-5.

Shanker, R., 2002. Marketing of Insurance Services. *Service Marketing: The Indian Perspective, Excell Books, New Delhi*, pp.275-87.

Sharma, R.K., 2005. Insurance Perspective in Eastern UP: An Empirical Study. *Indian journal of Marketing*, *35*(8), pp.14-20.

Shejwalker.PC (1989)"Training in Life Insurance Marketing",Yogashema, August Page 5. 248

Shekar Chandra Sahoo, "Future marketing Strategies for Life Insurance", The journal, JulDecember 1998, pp.81.

Thampy, A. and Sitharamu, S., 2002. Life Insurance Potential in India: An Economic Approach. *Vision: The Journal of Business Perspective*, *6*(2), pp.11-18.

Theil, M., 2015. Demographic variables and the appraisal of insurance: the case of'assistance products'.

Venkatesh, N.C., 1987. On the Trail of Better Service. *Yogakshema, November issue, Pg*, *28*.

Vijay Srinivas KB( 2000)"How returns linked insurance products can be popularized?" The Insurance Institute of India, journal of July-Dec. Page 6