CHAPTER-1

INTRODUCTION

Page No.

CHAPTER-1

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1.1 General Introduction

Insurance may be defined as risk transfer achieved through risk pooling. Life insurance as a commercial venture involves four elements: an asset (Human Life Value) that the insured seeks to protect; a risk event or peril having loss outcome that can be defined; a wonderful principle termed as risk pooling; and finally a contractual transaction between the insured and an insurer (**Kutty, 2008)**[1]. In insurance business, profit means earned premium plus investment income minus incurred loss minus underwriting loss. The main business of insurers happens to be making money through underwriting process by which insurers select the risks to insure and decide how much in premium to charge for accepting those risks **(Bali, 2008)**[2]. Formulation of policy conditions is done by the actuarial experts who update the premium rates considering the mortality, interest and expenses. The complex task of valuing assets and liabilities in the life insurance companies is done by these experts and they work out net surplus for distribution between the shareholders and the policyholders **(Subramanium and Martis, 2000)**[3]. A well developed insurance industry is essential for economic progress since it introduces long term funds for infrastructural development **(Charumati, 2012)**[4]. The present business world feels uncomfortable because risky business without the help of insurance will not have the capacity to shoulder all types of risks during the operations. If insurance companies do not continue to provide insurance services, a large portion of businesses will stop their operation or likely to face insolvency due to high risks **(Ahmed et.al, 2010)**[5]. As the life insurance industry provides social security to the people in addition to mobilizing savings of the policyholders, the life insurance sector in India was controlled by nationalized sector. However, on the recommendation of Malhotra Committee, IRDA (Insurance Regulatory Development Authority) Act has been passed in the year 1999 and IRDA has accepted the task of supervising and regulating the insurance industry of a country.

The private life insurers have made the expansion of life insurance industry tremendously from 2000 onwards. However, new life insurance players are to build

up their insurance business from scratch, and hence the private life insurers will take some time to reach to the expected level for providing better services to the policyholders **(Ahluwalia, 1999)**[6].

1.2 Life Insurance Density and Penetration

Insurance penetration and insurance density are the two parameters which show the potential and performance of insurance industry. Insurance penetration is expressed as the premium underwritten in a given year divided by Gross Domestic Product. Insurance density is the ratio of premium underwritten in a given year divided by the total population (measured in USD for convenience of comparison) (IRDA Annual Report, 2012-13). International comparison of life insurance density and life insurance penetration shows the fact that in case of India, the penetration as well as density is very low which is evident from the table-1.1.

TABLE-1.1

International Comparison of Life Insurance Density and Penetration in the year 2012

Name of the Country	Life Insurance Penetration (2012) (in percent)	Life Insurance Density (2012) (in US Dollar)
FRANCE	5.6	2239.2
UNITED KINGDOM	8.4	3255.8
HONG KONG	11.0	4024.7
JAPAN	9.2	4142.5
SOUTH KOREA	6.9	1578.1
TAIWAN	15.0	3107.1
INDIA	**3.2**	**42.7**

Source: Swiss Re, Sigma, Various Issues in IRDA Annual Report, 2012-13.

It is true that demand of the insurance in India is that of an investment rather than as a risk cover, which becomes a barrier for business development of insurers. Legal restriction like minimum business to come from rural areas is a main cause of concern for the private insurers **(Nayak and Vivek, 2002)**[7]. A trend analysis showed that in the year 2020, insurance density would be 107.85 USD and in the same year, insurance penetration would be 7.62% in the life insurance sector **(Kirubakaran, 2012)**[8]. Although in life insurance business, India ranked 10th among the 88 countries,

but it appears from the study that the total premium growth rate in life insurance sector in advanced countries is 1.8% and in Asia it is 6.5% while in India, it is (-) 6.9% **(IRDA, Annual Report, 2012-13)**[9]. This may be due to low life insurance density and penetration as depicted in the table-1.2 and diagram-1.1.

Table-1.2

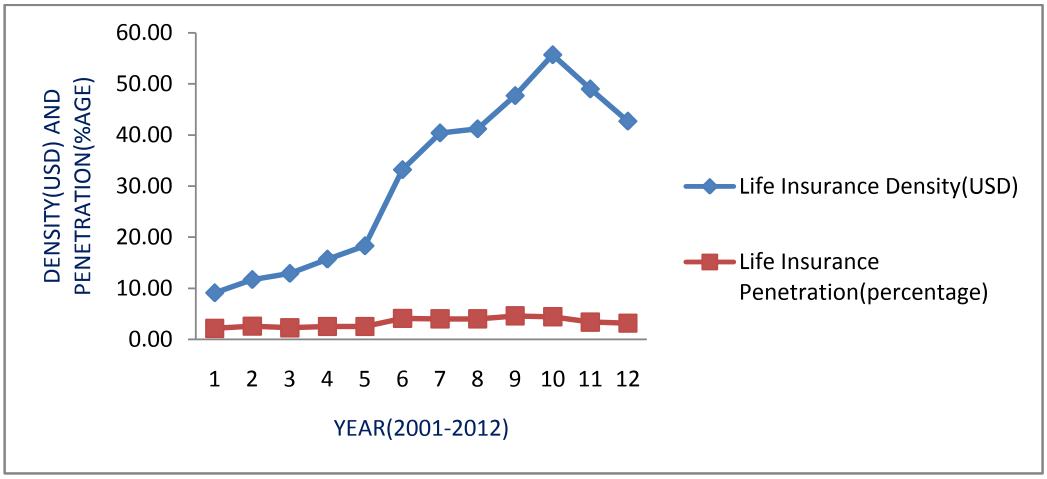
Life Insurance Penetration and Life Insurance Density in India (2001-2012)

Year	Life Insurance Density (USD)	Life Insurance Penetration (percentage)
2001	9.10	2.15
2002	11.70	2.59
2003	12.90	2.26
2004	15.70	2.53
2005	18.30	2.53
2006	33.20	4.10
2007	40.40	4.00
2008	41.20	4.00
2009	47.70	4.60
2010	55.70	4.40
2011	49.00	3.40
2012	42.70	3.17

Source: Swiss Re, Sigma, Various Issues in IRDA Annual Report, 2012-13.

Diagram-1.1

Life Insurance Density and Penetration in India (2001-2012)



The table-1.2 and diagram-1.1 reveal that the Insurance density has declined from 2010 as 55.7 USD to 42.7 USD in 2012.Insurance penetration has also declined from 2009 as 4.60% to 3.17% in 2012 **(IRDA Annual Report, 2012-13)**[9].

The Insurance Laws (Amendment) Bill, 2008 being introduced by the government on the floor of parliament to increase the FDI (Foreign Direct Investment) in private sector insurance companies from 26 percent to 49 percent inviting more FDI for the development of insurance industry **(Mitra and Soumen, 2012)**[10]. Recently, after a long debate, the government has passed the Bill increasing FDI up to 49%.

1.3 Statement of the Problem

After the formation of IRDA, different supervisory and regulatory steps have been taken to assess the financial soundness of life insurance companies on the basis of financial statements and related information.

A financial statement is a collection of data organized according to logical and consistent accounting procedures **(Gupta and Sharma, 2008)**[11]. Financial analysts depend mainly on the financial statements to assess financial performance and the task of financial statement analysis is undertaken for comprehensive assessment of the firm in various areas **(Chandra, 2008)**[12]. But the analysis of financial performance of life insurance business is a very complex task. The insurance companies are to find out the risks exposed in their business and find out the ways to minimize the risk. Here, adequate capitalization, solvency and liquidity are the main points of supervision by IRDA. Besides, low profitability is a cause of concern of life insurers which may lead to solvency problems. According to Insurance Core, Principles, Standards, Guidance and Assessment Methodology published on 01.10.2011 as amended on 12.10.2012 by **International Association of Insurance Supervisors**[13], insurers are to perform their Own Risk and Solvency Assessment (ORSA) on a routine basis to see that the risks management is adequate. With respect to liquidity, the association is of opinion that the insurer should be always in a position to pay benefit to the policy holders when the benefits become due. The Association is of opinion that the detailed information on financial performance particularly with respect to profitability, solvency and liquidity are to be disclosed on a timely basis to impart the policy holders and market participants a clear picture of activities, performances and financial position of life insurers. The regulating authority, therefore, should pay attention towards financial stability, risk management, asset protection and asset-liability management, cost control and solvency-based supervision **(Arbind and Kancheti, 2007)**[14]. It is true that there have been life

insurance failures after financial deregulation, economic expansion and large price fluctuations and in this respect financial soundness indicators of profitability, solvency and liquidity are useful indicating whether problems are developing or have already occured **(Das et.al, 2003)**[15]. The entry of Banks into insurance business and the entry of insurers into banking business has changed the position of insurance industry **(Tripathi and Paul, 2011)**[16]. "Korean life and non-life insurance companies operated similarly as banks. They made significant amount of loans, 40-50 percent of total assets and sold policyholders short-term savings products. During the currency and financial crisis in 1997, insurance companies suffered from non-performing loans and liquidity problems" **(Das et al, 2003)**[15]. However, as a result of entry of new insurers in the insurance market of India ,there has been heavy underwriting losses which may have reverse impact on their long term solvency margin **(Joo, 2013)**[17]. Banks have introduced liquidity risks into their risk management system while supervisors and regulators of insurance companies have not yet introduced any such system in the management. In case of catastrophes, liquidity issues cannot be solved by matching the cash flow of assets and liabilities **(Newton et.al, 2009)**[18]. Liquidity risk may arise due to negative publicity (whether justified or not), deterioration of the economy, reports of problems of other companies in the similar lines of business and so on. The main points on liquidity risks are concerned with too little liquidity and the cost of maintaining too much liquidity (**Report of the life liquidity work group of the American Academy of Actuaries- Dec. 2, 2000)**[19]. As the liberalization process goes on, insurance companies are to face competition and as a result, the policyholders may become less protected since the insurance companies have tasted both positive and negative impact on their financial performance **(Darzi, 2011)**[20].

At this point of time, a study entitled "Financial Performance of Life Insurance Companies in India-An Analytical Study" with respect to profitability, solvency and liquidity has been undertaken to analyze the position, strength and weaknesses of companies in the context of competitive environment. The study is significant in the sense that the financial performance analysis of life insurance companies in India may provide a basis for future action to insurance managers/regulators, business professionals, business promoters and policyholders.

1.4 Conceptual Framework

The word **finance** may be defined as the provision of money at the time when it is required **(Gupta and Sharma, 2008)**[11].It may be required for the purpose of transacting a business in case it is a business institution. The oxford dictionary defines **performance** as manner of doing or achievement. In oxford dictionary, the word analysis means detailed examination or to separate a thing into its component parts for finding out their relations to the thing. **Financial performance analysis** is thus a process of finding out the financial strengths and weaknesses of business institution by correctly linking and interpreting the items of **Financial Statements** with the help of available tools and techniques. The **analysis of financial statements** is a process of evaluating the relationship between component parts of financial statements to obtain a better understanding of the firms' position and performance **(Metcalf and Titard, 1976)**[21]. Financial Statements (Balance Sheet, Profit and Loss A/C and related statements) are prepared mainly for making decisions relating to future business operations. But unless the items in the financial statements are analyzed by applying available tools and techniques, the real fact of the financial performance will remain unknown. Financial performance of a firm may be judged with the help of the analysis of financial ratios and the analysis of standardized financial statements e.g., comparative statement, common-size statement etc. Financial performance can also be judged with the help of time series analysis, by comparing the ratios of firm with industry average, and by combining a set of ratios and answering the questions that are commonly raised by financial managers and others **(Chandra, 2008)**[12]. In short, financial performance analysis is the process of selection, relation and evaluation **(Meigs et al, 1978)**[22]. **Analytical study** consists of a system of mathematical models or statistical techniques applied to numerical data which aims at testing hypothesis and specifying and interpreting relationships, measuring variables/ratios, comparing groups and examining the association between factors and is used in business and other fields where quantitative numerical data are generated and published like the Reserve Bank of India, NABARD, Central Statistical Organization etc. **(Krishnaswami and Ranganathan, 2008)**[23]**.**

1.5 Review of Literature

Despite the fact that Insurance plays a great role in the economic development of a country, this sector has not received much attention of the researchers in the past. But, at present various Universities and Research Institutes have taken special interest for research in this sector in India and abroad. Various studies have paid attention to the financial performance of insurance companies from different perspectives. However, an attempt has been taken to review some of the selected literatures in the following pages to find out the gap of research in this sector:

A) Studies outside India

Adams, (1996)[24] has examined the relationship between investment earnings of life insurance companies of New Zealand with firm's characteristics for a period of 1988 to 1993. Multiple regression analysis taking investment earnings as dependent variable indicates that it is positively and significantly associated with the size, leverage and underwriting risk of life insurance firms.

Altman (2000)[25] has explained Z-score model of corporate bankruptcy for public and privately held companies of manufacturing firms and also for non-manufacturing firms and this model has been very popular in the study of corporate bankruptcy of manufacturing and non-manufacturing firms throughout the world.

Adam and Buckle (2000)[26] have examined the determinants of operational performance in the Bermuda insurance market on 47 Bermuda registered insurance/reinsurance companies covering a period of 1993 to 1997. The study has found by applying multiple regression technique that high financial leverage has better operational performance. The underwriting risk is positively related to profitability and low liquidity units have better profitability performance. However, type and size have no statistically significant relationship with profitability.

Shiu (2001)[27] has identified the determinants of the performance of 346 U.K. general insurance companies over the period of 1986-1999. Three performance measures are taken as dependent variable namely, percentage change in shareholders' fund, return on shareholders' fund and investment yield i.e. net investment income to average total assets and Independent variables include economic variables and company specific variable to fit multiple regression model. Based on empirical results, the study has

found that liquidity, inflation rate and interest rate are statistically significant determinants of the performance of U.K. general insurance companies.

Das et.al (2003)[15] have made a study on the indicators of financial soundness of the life insurance companies for the analysis of profitability, solvency and liquidity. These financial soundness indicators have been presented within the CARAMELS framework, which adds the Actuarial and Reinsurance issues to the CAMELS methodology routinely used for Banks, in the form of Core-set and Encouraged set (indicators related to stock market and group exposures) by various ratios. They have proposed that the above key financial soundness indicators may be compiled and used for surveillance of financial soundness of the insurance sector.

Chen and Wong (2004)[28] have made a study on the solvency of general and life insurance companies in Asia using firm data and macro data .They have found that the factors affecting significantly general insurers' financial health in Asian economies are firm size, investment performance, liquidity ratio, surplus growth, combined ratio, operating margin. The factors that significantly affect life insurers' financial health are firm size, change in asset mix, investment performance and change in product mix.

Afza and Ahmed (2010)[29] have made a study on the debt-equity choice of five life and 32 non-life insurance companies of Pakistan over a period of nine years from 2001 to 2009. Multiple regression results reveal that both life and nonlife insurance companies follow the packing order pattern of capital structure which means that initially firms utilize internally generated fund than debt. If more funds are required, then assets are financed by equity capital.

Eling and Marek (2011)[30] have conducted a study on the impact of both firm specific and external factors on the risk taking of European insurance companies on 35 German and UK insurance companies for a period of 1997 to 2010. The multiple regression analysis taking risk measures (gains, dividends, cash flows from income, etc.) as dependent variables shows that the differences in company size, capital structure, liquidity and economic development affect dependent variables.

Malik (2011)[31] in identifying the internal factors that might affect the profitability of 35 life and non-life insurance companies in Pakistan during the periods from 2005-

2009, has made a multiple regression model where ROA (Return on Asset) has been taken as dependent variable and age, size, volume of capital, leverage, loss ratio as independent variables. The findings of the regression analysis have showed that there is no relationship between profitability and age of the company but significantly positive association has occurred between size of the company and profitability. Findings also show that the volume of capital is significantly and positively associated to profitability whereas the loss ratio and leverage have negative but significant relationship with profitability.

Akhtar and Rehman (2011)[32] have studied the financial performance of Pakistan insurance industry, both life insurance and general insurance organizations in Pakistan, from 2001 to 2005. Secondary data have been analyzed with respect to return on assets (ROA), gross premium, insurance density, insurance penetration with the help of statistical tables and diagrams. Findings show that the average net profit growth rate, average growth rate of assets and ROA during the period of study of general insurance have been better than life insurance sector. However, the average premium growth rate of life insurance has been higher compared to general insurance.

Almajali et. al (2012)[33] have studied the factors affecting the financial performance of 26 Jordanian Insurance companies from 2002 to 2007. Multiple regression analysis has revealed that the leverage, total assets, management competence index and liquidity have significant impact on the financial performance of insurance companies. There is no significant impact of age on financial performance.

Ayele(2012)[34] has conducted a study on factors affecting profitability of nine insurance companies of Ethiopia, the study period being 2003 to 2011. Multiple regression model has been adopted and the factors like tangibility of assets, liquidity, volume of capital, firms' size, age and leverage are regressed against ROA. From the regression results, it has been found that the growth, size and volume of capital are positively and significantly related to ROA while leverage and liquidity are negatively and significantly related to profitability. However, age and tangibility of assets do not have any significant relationship with profitability.

Doumpos et al (2012)[35] have studied to estimate and explain the overall financial performance of non-life insurers using a sample over 2000 non-life insurance firms operating in 91 countries between 2005 to 2009. They have found that individual

financial ratios that are commonly used to assess the overall financial conditions of insurers offer only a partial view of their financial performance. On the other hand, they have proposed the application of multi-criteria methodology (e.g., multiple regression analysis) that provides an overall measure of financial performance while considering simultaneously a number of conflicting criteria (variable) and have attempted to explain the differences in performance of insurers on the basis of various firm specific and country specific variables. They have found that macro economic conditions such as gross domestic product growth, inflation, and income inequality are most robust predictors of overall financial performance. However, other characteristics that relate to the institutional and financial environment do not appear to matter.

Mehari and Aemiro (2013)[36] have studied the factors determining the performance of nine Insurance companies of Ethiopia from 2005 to 2010 with the help of multiple regression tools. The regression analysis shows that the size, leverage and tangibility are positively related to financial performance whereas loss ratio is negatively related to financial performance.

Akotey et.al (2013)[37] has conducted a study on the financial performance of ten life insurance companies of Ghana out of seventeen life insurance companies covering a period of 2000 to 2010. A multiple regression model has been made in which sales profitability, investment income, underwriting income are taken as dependent variables and gross premium, claims, expenses of management, re-insurance, total debts, size of the company, interest rate, GDP growth rate are taken as independent variables. Findings indicate that gross premium has a positive relationship with insurers' sales profitability, but its relationship with investment income is a negative one. Also, the result shows that life insurers have been incurring huge underwriting losses due to overtrading and price cutting. The results further reveals a setting-off rather than a complementary relationship between underwriting profit and investment income towards the enhancement of the overall profitability of life insurers.

Ahmed and Shabbir (2014)[38] have investigated the determinants of capital structure of five life insurance companies and eight non-life insurance companies of Pakistan over the period of seven years from 2007-2011. The findings of Ordinary Least

Square regression model show that size, profitability, risk, liquidity and tangibility are important determinants of capital structure of insurance companies of Pakistan.

B) Studies within India

Sharma (2005)[39]has evaluated the financial performance vis-à-vis managerial effectiveness of public sector life and general insurance companies in India from 1998-99 to 2002-03 with tools like simple tabulation, ratios, trend analysis, One-way ANOVA etc. It is found that the current ratio, quick ratio, ratio of total assets to total liabilities and net profit after tax to net premium of general insurance is consisting. In case of life insurance, growth of premium, no. of policies, sum assured and payment to policy holders are consisting and no differences have been found except management expense of LICI which is not consisting and differences have been found during the study period.

Das (2007)[40] has analyzed the cost and management practices in non-life insurance companies in India from 1990-91 to 2004-05. Data analysis concerning premium growth, claims, operating expenses and combined ratio etc. has been made using descriptive statistics and it has been found that gross premium of public sector insurers has increased from 2000-01 to 2003-04 while market share has declined steadily. The private insurers have succeeded in stabilizing their business operations. There has been rising trend of management expenses of public sector insurance companies and it has been primarily because of salary revision, pension scheme, etc. Combined ratio of National Insurance has been higher than New India Assurance and as such New India Assurance is required to follow the adoption of cost control measures.

Chandarana (2008)[41] has made a study on performance evaluation of Life Insurance Corporation of India for the period from 1996-97 to 2005-06. The parameters used by him have been new business, premium income, no. of policies, claims settlement, total income, total outgo, commission, expenses of management etc. and the data have been analyzed with the help of ratios, average, index number, time series analysis, regression analysis, chi-square test etc. It has been found that total assets of LICI have increased by six times during the study period. New business out of India has a discouraging trend while in India it has showed healthy growth. Ratio of o/s claim to

claims has a reduced trend year by year. Performance of the branches has not been consistent during the study period.

Singh and Kumar (2009)[42] have evaluated emerging trend in growth and financial performance of two public sector and three private sector general insurance companies from 2002-03 to 2006-07. The data have been analyzed with respect to market share in premium, expenses of management ratio, claims incurred ratio, combined ratio, underwriting results ratio, net earnings ratio, return on net worth ratio etc. with the help of simple tabulation, ratios and percentages. The study has revealed that the private sector general insurance companies are performing efficiently in terms of expenses of management ratio, combined ratio, underwriting result ratio and they are increasing their market share year by year. Whereas the performance of public sector general insurance companies in terms of net earnings and return on net worth ratio have been better than that of private sector general insurance companies.

Rajandran and Natrajan (2009)[43] have studied the impact of liberalization, privatization and globalization (LPG) on LICI from 2001-02 to 2006-07 on total new business by applying the method of least square and linear trend. The analyzed data indicates a positive influence on the performance of LICI in LPG era and it shows always an increasing trend.

Kumar (2010)[44] has conducted a study on the performance of general insurance companies (eight private sector and four public sector) covering a period 1993-94 to 2007-08. Data relating to claims ratio, investment income to net premium ratio, net premium to gross premium ratio, profit before tax to net premium ratio and profit after tax to net worth ratio have been analyzed with the help of percentages, mean, SD etc. Findings of the study have revealed that during post reform period the claims ratio and expenses of management ratio have correlated negatively with return on equity. But the investment income ratio has showed a positive correlation with return on equity.

Hussain (2010)[45] has evaluated the growth of LICI during post privatization period from 2004-05 to 2008-09 where parameters used are premium, commission, operating expenses etc. and the analysis has been made by ratios, percentages and simple tabulation. It has been found that the increase in commission expenses has been lower

than the increase in gross premium and operating expenses compared to premium underwritten has been on the higher side.

Kutty (2010)[46] has studied selected Indian life insurance companies in three dimensions i.e. productivity, quality of business and services and profitability for 2006-07 to 2009-10. The parameters/ratios used in (i) productivity analysis have been no. of policies and first year premium per agent, no. of agents termination per 100 appointed agents, share of alternative channels in individual new business, premium per policy secured under each channels; in (ii) quality of business and service analysis have been in respect of share of different products in policies in force, share of linked business in first year and total premium; and in (iii) profitability analysis have been with regard to profit after tax of life insurer, commission and operating expenses per policy, surrender and withdrawal, investment income as percentage of total investment. With respect to productivity, it has been found that there has been progressive deterioration of agents' performance and since a large number of agents have been terminated, there has been drain of funds and among all the alternative channels, the bankers have been the clear winner so far as premium per policy secured are concerned. As regards quality of business, and service, the share of premium collected for life business has been eighty percent and share of premium collected for linked products has been twenty percent. LICI has paid almost eight times the no. of claims paid by private sector life insurance companies during the financial year 2009-10. Most of the claims related to private insurance companies have been early claims which are more prone to repudiation. Regarding profitability, total industry losses have continued from 2006 to 2009. However, in the year 2009-10 five companies including LICI have made profit.

Kumar and Priyan (2011)[47] have compared the performance of one public and 22 private life insurance companies in India. In order to know whether there is any statistically significant difference in the growth rates of public and private life insurance companies relating to fresh business premium, no. of new policies issued and total life insurance premium, etc. Mann-Whitney-U-Test has been used. The study has showed that there has been no significant difference in the growth rate of fresh premium and growth of new policies issued between LICI and private insurers. But in case of total premium growth, they have found significant differences in public and private insurers. It has been understood that though privatization has been feared

to affect the prospect of LICI, the study has showed that the LICI still dominates the life insurance sector.

Modi (2011)[48] has examined the profitability and financial strength of general insurance public sector companies in India from 2001-02 to 2007-08. With the help of ratios, percentages, diagram, F-test, simple regression with Chi-square test (to find out whether the results are as per expectation or not) etc., the different financial performance ratios have been analyzed. It is found out that difference in the ratio of income from investment to total income has been significant in between the years and insignificant in between the companies. Ratio of net claim to gross premium and the ratio of net profit to net premium are significant in between the years and in between the companies. Ratio of current assets to total assets is not significant in between the years and significant in between the companies. The ratio of liquidity has registered a fluctuating trend throughout the study period. The ratio of gross premium to shareholders' fund is significant in between the years and not significant in between the companies.

Gulati and Jain (2011)[49] have conducted a study on LIC of India and 21 private life insurance companies in India from 2001-02 to 2008-09 on different parameters such as agency force, premium income, no. of policies, growth rate of premium, growth rate of policies. Data analysis has showed that the entry of private players in life insurance have resulted in a drop of market share for LICI. The performance of LICI in terms of premium and no. of policies has declined after liberalization of the insurance sector. Analysis also has showed that there has been tremendous growth of new business as a result of the entry of private players in the insurance market.

Choudhury and Kiran (2011)[50] have conducted a study on LICI and 15 private life insurance companies operating in India in the light of recent changes from 2000-01 to 2010-11. The study has been related to no. of officers, no. of individual agents, life insurance business, premium income, lapse/foreclosure ratio, settlement of death claim etc. The data analysis has been made with the help of common tools like tables, percentages, ratios and coefficient of variation. From the analysis of data, it has been found out that life insurance industry has expanded very fast in respect of no. of offices, no of products, no. of agent, new business policies, premium income etc. Shifting from conventional products, new products like ULIPs, pension plans and

riders have been produced before the customers to suit their requirements. Lapsation ratios of private insurer have been much higher compared to LICI. The death claim servicing of LICI has been better than private insurers. As regards turnover ratio of individual agents, it has been found out that total turnover ratio for private life insurers are much higher than LICI. High agents' turnover ratio of private life insurers has led to increased cost and losses since a large amount has been spent on the training of those agents.

Shinde (2011)[51] has conducted a study on life insurance companies in India during the period from 2000-2001 to 2009 – 2010 to compare cost efficiency and financial performance with the help of ANOVA, DEA etc. The results of ANOVA with respect to total comm. to total premium, total commission to total operating expenses, actuarial efficiency, current ratio, shareholders' fund to total assets, and total investment to total liability show that there are significant differences in the ratios between private and public life insurance companies. DEA shows significant heterogeneity in the cost efficiency score from 2000—01 to 2012-13.

Bedi and Singh (2011)[52] have made an analysis of performance of life insurance industry in India during the periods from 2001-02 to 2007-08 relating to total life insurance premium collection and to measure the change in effectiveness of the investment strategy of LICI over the periods from 1980-2009. It has been found that the total business and investment of LIC of India are in an increasing trend. Due to increase in competition from private sector, the proportion of premium collected by LIC of India out of total premium for industry has declined to seventy four percent in 2007-08. Total investment in LIC of India has risen from 1979 to 2009 about one hundred sixty six times. T-test and ANOVA have showed that there has been a significant change in the pattern of investment strategy of LIC of India and also there has been significant difference in the performance of LICI and other private sector life insurance companies in respect of premium collection.

Tiwari and Yadav (2012)[53] have analyzed the impact of liberalization on LICI and all private life insurance companies from 2001-02 to 2009-10. They have studied the impact relating to total income, total no. of policies, total premium income, market share in terms of total premium with the help of simple tabulation, bar diagram and graphs. The study has revealed that the insurance industry has achieved a tremendous

growth in terms of total premium after the entry of private insurers. However, performance analysis has showed that premium income, no. of policies, total income and market share of LICI are better than private life insurers during the study period.

Kumar and Kumari (2012)[54] have made a comparative study on public vs. private sector life insurance companies in India from 2002-03 to 2009-10 where fresh business premium, total insurance premium, market share etc. have been analyzed with the help of simple tabulation and percentages. It has been found that the growth rate of private life insurance companies are high and as a result, the public insurer must remain competitive by doing things better and faster and by ensuring cost effectiveness.

Nema and Jain (2012)[55] have studied the growth of re-insurance in India. The General Insurance Corporation of India, the only reinsurance company in India in the domestic re-insurance market, has been studied in respect of premium earned, incurred claims, profit after tax etc. for five years period from 2005-06 to 2009-10 by using tables and diagrams. Data analysis of GIC of India as reinsurer has shown continuous increase of earned premium and profit. The study has showed that miscellaneous, fire and engineering reinsurance business have earned maximum premium during the study period. Maximum claim expenses have been incurred in the miscellaneous, fire and marine segments.

Charumati (2012)[4] has conducted a study on financial performance/profitability on twenty three life insurance companies of India including LICI for the period from 2008-09 to 2010-11. In this study, the specific characteristics such as leverage, size, premium growth, liquidity, underwriting risk and equity capital are regressed against ROA. The study has concluded that the profitability is influenced by size and liquidity positively and significantly while leverage, premium growth and equity capital negatively and significantly. The study does not find any evidence of relationship between underwriting risk and profitability.

Neelaveni (2012)[56] has evaluated the financial performance of five life insurance companies in India which are randomly selected at the time of 2002-03 to select a best life insurance policy from the best performing company. The compound annual growth rate with respect to capital, fixed assets, current assets, cash and bank balances, current liabilities, net working capital, policy liabilities, total income,

premium income, income from investments, other income, profit before tax, insurance benefit paid, commission paid, operating expenses etc. has revealed that although LIC of India is big public sector company, in the past decade period, it is lagging behind in respect of some of the financial aspects.

Kirubakaran (2012)[8] has analyzed the density and penetration of Indian insurance companies (24 life insurance and 24 general insurance companies in India) covering a period from 2001 to 2010 and by applying tools viz. mean, SD, range etc., the secondary data have been analyzed. The study indicates that the life insurance penetration (Premium as %age of GDP) in the year 2020 would be about more than seven percent and the life insurance density (Premium as per capita income) in the same year would be more than one hundred seven US Dollars in India.

Singh (2012)[57] has made a study on the working capital management of selected pharmaceutical companies i.e. Cipla Ltd and Dr. Reddy's Laboratory Ltd with the help of various working capital ratios and Comprehensive Ranking Test for a period from 2000-01 to 2009-10. The results indicate that there is high degree of association between the inventories and working capital in Cipla Ltd and there is low degree of association between these two variables in case of Dr. Reddy's Laboratories Ltd.

Reddy et al(2012)[58]have made an analysis on financial performance and predicting the risk of insolvency of three selected sugar manufacturing units of Andhra Pradesh in India for a period from 2004-2010 by applying Altman' Z-score Model and ratio analysis. The findings show that all the three sugar units are facing financial distress.

Krishnamoorthi and Bhanupriya (2012)[59] have conducted an analysis of the Long term solvency position by using various solvency ratios of selected steel companies in India. The secondary data are used for this study and analyzed the data by using Mean, SD, and one way ANOVA. Finally, it has been concluded that companies belong to the same industry followed a different debt equity position during the study period.

Nair (2013)[60] has made a study on performance analysis and solvency prediction of Indian pharma companies for which 23 pharma companies are selected for a period of five years from 2008-2012 by using Altman' Z-score model. Application of Z-score model has identified the companies with findings that earnings before interest and

taxes to total assets and market value of equity to total liabilities are the factors influencing the companies' Z-score.

Joo (2013)[17] has made a study on the solvency position of non- life insurance companies in India for five years from 2004-05 to 2008-09 as per solvency norms prescribed by Insurance Solvency International Ltd. (ISI) and also has made a regression model analyzing the determinants which have impact on the solvency position. ISI standard benchmarks that have been used for insurance companies' solvency are- net premium/share holders fund being <300, change in net premium ±25, underwriting profit/income from investment>-25, Technical reserve/shareholders fund<350, Technical reserve + shareholders fund/Net premium>150 and pre-tax profit/net premium >5. In regression analysis, available solvency ratio has been taken as dependent variable and firm size, investment performance, liquidity ratio, operating margin, combined ratio, claims ratio, underwriting profitability have been taken as independent variable. The data analysis has revealed that the public sector insurers have done better in terms of ISI standard compared to private sector. However, underwriting losses have affected profitability position of public sector non-life insurers. Regression analysis has revealed that claims ratio contributed negatively and size of the firm positively towards overall solvency position of insurers.

Jain (2013)[61] has conducted a study with respect to overall performance of life insurance industry in India after 2008 world economic crisis from 2007-08 to 2011-12. Analysis of data (secondary), relating to total premium, policies issued, operating expense ratio, market share of life insurers in terms of first year premium, market share of life insurers' total premium, no. of officers of life insurers has been made with the help of simple tabulation. Findings reveals that total premium of life insurance companies in India have increased but the growth is very slow. It has been interpreted that after economic slowdown, new companies are taking less interest in the Indian life insurance market and many life insurance offices are closed down.

Kathirvel and Dharmaraj (2013)[62], have studied about the financial strength of automobile industry from 1998-99 to 2011-12 by selecting 15 automobile companies in India. Analysis has been made by using descriptive statistics tools like mean and standard deviation. ANOVA tool has been used to test the differences across the companies with respect to liquidity, solvency and profitability. The result of the study

implies that the selected automobile companies are financially strong and these companies are growing at an average rate of 17% per annum.

Ansari and Fola (2014)[63] have analyzed the degree of solvency position of life insurance companies in India by using three ratios namely the ratio of net assets to net premium written, the ratio of capital to total assets and the ratio of capital to reserve and Mann Whitney-U test has been used to find out the difference in the solvency position between public sector and private sector life insurance companies in India. The Study finds that there is significant difference between public and private life insurers relating to capital adequacies, asset quality, management efficiency, earnings and profitability and liquidity position in private and public life insurance companies. This study does find enough evidence for difference between ROA and the New Business Premium in private and public life insurance companies in India.

Sornaganesh and Maheshwari (2014)[64] have conducted a fundamental analysis of IT industry in India where various financial ratios such as Earning Per Share(EPS), Operating Profit Margin(OPM), Net Profit Margin(NPM), Debt Equity Ratio(DER), Return On Assets(ROA), Return On Net worth(RNW), Current Ratio(CR), Fixed Assets Turnover Ratio(FTR) are used for the purpose of analysis. The statistical tool that is used for testing hypothesis is Analysis Of Variance (ANOVA) to find out the difference in the performance of selected IT companies. The study finds that INFOSYS has the greater short term solvency and their overall efficiency is better than that of TCS, WIPRO, HCL etc. The study also finds that INFOSYS has achieved the most efficient company in generating yield over assets compared to TCS, WIPRO, HCL etc.

From the above review of literature, it is evident that although the various aspects of financial performance of life insurance companies in India has been studied and their impact has been well discussed, most of the existing literature has studied financial performance from profitability aspect and less attention has been paid towards solvency and liquidity. Timely payment of claims is related to better solvency and liquidity position and in this direction the previous studies are rather fragmented. As the regulators are now insisting on the solvency and liquidity position of life insurance companies to safeguard the interests of the policyholders and investors in addition to profitability because of insurance failures in the recent past, a study with

respect to profitability, solvency and liquidity has become imperative. Lastly, less attention has been paid to study overall financial performance of life insurance industry by identifying the firm specific factors affecting financial performance for such a study period. The present study is an attempt to fill these gaps.

1.6 Objectives of the Study

The broad objective of this study is to analyze the financial performance of life insurance companies in India. Based on this objective the researcher elucidates the following specific objectives for the study:

1) To analyze the profitability of life insurance companies in India;

2) To examine the solvency of life insurance companies in India;

3) To analyze the liquidity of life insurance companies in India; and

4) To study overall financial performance of life insurance companies in India.

1.7 Hypotheses of the Study

On the basis of review of literature, the researcher has identified the following broad **null hypotheses** for the study:-

H_0P: There is no significant difference in Profitability (P) across the life insurance companies in India;

H_0S: There is no significant difference in Solvency (S) across the life insurance companies in India; and

H_0L: There is no significant difference in Liquidity (L) indicators across the life insurance companies in India.

H_0O: There is no significant difference in overall financial performance (O) indicators across the life insurance companies in India.

H_0E: There is no significant relationship between ROE (Return on Equity) (E) and other selected explanatory variables.

On the basis of broad hypotheses, the researcher has identified the following sub-hypotheses for the study-:

A. Hypotheses Relating to Profitability Analysis

H_0P_1: There is no significant difference in the ratio of underwriting income to net premium across the life insurance companies in India;

H_0P_2: There is no significant difference in the ratio of total income from investment to total investment across the life insurance companies in India;

H_0P_3: There is no significant difference in the ratio of operating expenses to net premium across the life insurance companies in India;

H_0P_4: There is no significant difference in the ratio of benefits paid to net premium across the life insurance companies in India;

H_0P_5: There is no significant difference in the ratio of change in policy liabilities to net premium across the life insurance companies in India;

H_0P_6: There is no significant difference in the ratio of profit before tax to net premium across the life insurance companies in India; and

H_0P_7: There is no significant difference in the overall profitability performance across the life insurance companies in India.

B. Hypotheses Relating to Solvency Analysis

H_0S_1: There is no significant difference in the ratio of total assets to total liabilities across the life insurance companies in India;

H_0S_2: There is no significant difference in the ratio of shareholders' fund to minimum capital for registration across the life insurance companies in India;

H_0S_3: There is no significant difference in the ratio of shareholders' fund to technical reserve across the life insurance companies in India;

H_0S_4: There is no significant difference in the ratio of shareholders' funds to total assets across the life insurance companies in India;

H_0S_5: There is no significant difference in the ratio of fixed assets to total assets across the life insurance companies in India; and

H_0S_6: There is no significant difference in the overall solvency performance across the life insurance companies in India.

C. Hypotheses Relating to Liquidity Analysis

H_0L_1: There is no significant difference in the ratio of current assets to current liabilities across the life insurance companies in India;

H_0L_2: There is no significant difference in the ratio of current assets to total assets across the life insurance companies in India;

H_0L_3: There is no significant difference in the ratio of cash and bank balances to current liabilities across the life insurance companies in India;

H_0L_4: There is no significant difference in the ratio of total liabilities to liquid assets across the life insurance companies in India; and

H_0L_5: There is no significant difference in the overall liquidity performance across the life insurance companies in India.

D. Hypotheses Relating to Overall Financial Performance

H_0O: There is no significant difference in the overall financial performance (O) across the life insurance companies in India;

H_0E_1: There is no significant relationship between ROE (return on equity) and underwriting risks;

H_0E_2: There is no significant relationship between ROE and liquidity;

H_0E_3: There is no significant relationship between ROE and tangibility;

H_0E_4: There is no significant relationship between ROE and leverage;

H_0E_5: There is no significant relationship between ROE and volume of capital; and

H_0E_6: There is no significant relationship between ROE and size.

1.8 Data and Methodology

1.8.1 Source of Data

The study is based on secondary data and the same have been collected from the **Annual Reports of IRDA**[9, 65-73]

1.8.2 Period of the Study

The present study covers a period of ten (10) years from 2003-04 to 2012-13 following the opening up of Life Insurance markets in India for private sector from the year 2000. The study considers the study period of ten years for the analysis of financial performance in order to have a fairly long cyclically well balanced period as most of the researchers have accepted. The periods from 2000-2001 to 2002-2003 have been ignored because at that time the life insurance companies have been engaged in structuring/ restructuring the organization for facing the competition.

1.8.3 Selection of Sample Companies for Study

The population of the study includes twenty four life insurance companies operating in India. These companies are arranged in order of their date of registration including their market share in gross premium earned in the financial year 2012-13 in the table-1.3 shown below:

Table-1.3

List of Life Insurance Companies in India and their Market Share in Premium

Sr. No.	Registration No.	Date of Registration	Name of Life Insurers	Gross Premium Earned (2012-13) (in lakhs of Rupees)
1		19-06-1956	Life Insurance Corporation of India	20880358
2	101	23/10/2000	HDFC Standard Life Insurance Co. Ltd.	1132268
3	104	15/11/2000	Max New York Life Insurance Co. Ltd.	663870
4	105	24/11/2000	ICICI Prudential Life Insurance Co. Ltd.	1353824
5	107	10/1/2001	Kotak Mahindra Old Mutual Life Insurance Co. Ltd.	277778
6	109	31/01/2001	Birla Sun Life Insurance Co. Ltd.	521630
7	110	12/2/2001	TATA AIA Life Insurance Co. Ltd.	276043
8	111	30/03/2001	SBI Life Insurance Co. Ltd.	1045003
9	114	2/8/2001	ING Vyasya Life Insurance Co. Ltd.	174236

10	116	3/8/2001	Bajaj Allianz Life Insurance Co. Ltd.	689270
11	117	6/8/2001	PNB Met Life India Insurance Co. Ltd.	242952
12	121	3/1/2002	Reliance Life Insurance Co. Ltd.	404539
13	122	14/05/2002	Aviva Life Insurance Co. Ltd.	214067
			TOTAL	**27875838**
14	127	6/2/2004	Sahara India Life Insurance Co. Ltd.	20538
15	128	17/11/2005	Shriram Life Insurance Co. Ltd.	61807
16	130	14/07/2006	Bharati AXA Life Insurance Co. Ltd.	74452
17	133	4/9/2007	Future Generali Life Insurance Co. Ltd.	67829
18	135	19/12/2007	IDBI Federal Life Insurance Co. Ltd.	80468
19	136	8/5/2008	Canara HSBC Oriental Bank of Commerce Life Insurance Co. Ltd.	191215
20	138	27/06/2008	Aegon Religare Life Insurance Co. Ltd.	43050
21	140	27/06/2008	DLF Pramerica Life Insurance Co. Ltd.	23679
22	142	26/12/2008	Star Union Dai-Ichi Life Insurance Co. Ltd.	106880
23	143	5/11/2009	India First Life Insurance Co. Ltd.	169008
24	147	2011/2012	Edelwesis Tokio Life Insurance Co Ltd	5483
			GRAND TOTAL	**28720247**

Note- IRDA Annual Report (2012-13)

Out of twenty four life insurance companies, the researcher has selected first 13 life insurance companies from the list purposively as sample companies in order of their date of registration for the study and the sample companies represents more than 50% of total number of companies operating in India belonging to a market share in gross direct premium of 97.06%.Other life insurance companies are not taken into study as their period of operation is less than 10 years.

1.8.4 Tools and Techniques Used

Analysis of data is an important task in the research work. Most social science researchers take the help of ratios, percentages and various statistical techniques for quantitative analysis of the data for studying the characteristics of the objectives under the study. Descriptive analysis summarizes huge volume of data into understandable and meaningful form which helps further statistical analysis. Inferential statistical analysis is used to test the hypothesis **(Krishnaswami and Ranganathan, 2008)**[23]. However, the researcher has taken the help of following tools and techniques for the analysis of of data:

1.8.4.1 Ratio

A ratio is a simple arithmetical expression of the relationship of one number to another and may be defined as the indicated quotient of two mathematical expressions **(Gupta and Sharma, 2008)**[11]. Ratio is an expression of quantitative relationship between two numbers **(Khan and Jain,2001)**[74]. Ratio being a relative measure helps the comparison of groups of big size with small size e.g., liquidity ratios, solvency ratios, profitability ratios etc. that are used for inter-firm and intra-firm comparison **(Krishnaswami and Ranganathan, 2008)**[23].

1.8.4.2 Percentage

According to Oxford Dictionary, A percentage is an amount in each hundred or any proportion or share in relation to a whole. A percentage is a relative measure and its purpose is to simplify the problems of comparison.

1.8.4.3 Table, Line Graph and Bar Diagram

A table is a systematic arrangement of classified data in rows and columns with appropriate headings and sub headings. A tabular presentation of data becomes more intelligible and fit for further statistical analysis **(Asthana and Bhusan, 2007)**[75].

A line graph is created on two mutually perpendicular lines called the X and Y axes on which appropriate scales are indicated. Horizontal line is called abscissa and the vertical line is called ordinate. The line graph is useful in showing change in data relationships over a period of time. Horizontal axis usually measures the independent

variable while vertical axis measures characteristics. The figure formed by the lines connecting the point is known as a frequency polygon **(Sidhu, 2006)[76].**

The bar chart or bar diagram consists of group of equally spaced rectangular bars, one for each category (class) for given statistical data. The bars are spaced equally from each other along the axis from which it originates and may be placed vertically or horizontally and generally used to show time series data. Although, statistical graphs and diagrams are generally considered as tools of data visualization only but it can also be used as a strong apparatus both for the purpose of diagnosis as well as analysis of data **(Bhattacharjee, 2010)[77].**

1.8.4.4 Mean

Mean is the average of a distribution. Of the four types of mean, namely, arithmetic mean, geometric mean, harmonic mean and quadratic mean, arithmetic mean is more commonly used in research analysis. Arithmetic mean is total sum of all scores divided by the number of scores. It facilitates comparison of different distributions **(Ahuja, 2001)[78]**.

1.8.4.5 Standard Deviation

Among the most important absolute measures of dispersion, Standard deviation is popularly used, nowadays, by the researchers of social science to know the degree of variation of the different values of a variable from their average. Standard deviation (SD) of a set of values of a variable is defined as positive square root of arithmetic mean of the squares of all the deviations of the values from their arithmetic mean **(Ghosh and Saha, 1979)[79].**

1.8.4.6 Method of Least Square

An arrangement of statistical data in accordance with time is called a time series. Time series analysis shows the relationship between the two variables where the independent variable is time. With the help of time series analysis by determining trend, direction of long term series can be found out whether it is growing or declining. Of the various methods of time series analysis (graphic method, semi-average method, moving average method, method of least square etc.), the method of least square is most widely used in practice. It is a mathematical method which is used

to fit a straight-line trend and is represented by the equation Yc = a + b X, where, Yc is expressed as trend values distinguishing from the actual Y value, a is the intercept or the computed trend figure of Y variable when X=0, b is the slope of the trend line or amount of change in Y variable which is associated with a change of one unit in X variable. This method can be used for estimating future or /and past values **(Pillai and Bagavathi, 1984)[80].**

1.8.4.7 One-way ANOVA

The analysis of variance (abbreviated as ANOVA) is popularly applied by the researchers in social science research which is developed by Professor R.A. Fisher in 1920 in agrarian research. The objective of ANOVA is to test the equality of several population means or the homogeneity of several independent sample means. **(Gupta, 2011)[81]**. If only one factor is taken to find out differences among its various categories having numerous possible values, one-way ANOVA can be used. To investigate two factors at the same time, two-way ANOVA may be used. In one-way ANOVA, F is calculated by dividing the variance between the groups by variance within the groups. If the calculated value of F is more than the tabulated value of F at 5% level of significance, then the difference in group mean is significant. Otherwise the difference is insignificant **(Gupta, 2010)[82].**

1.8.4.8 Post Hoc Test

Post hoc test consists of pair-wise comparisons that are designed in SPSS-17 to compare all different combinations of the treatment groups as if by applying t-test on each pair of groups. Post hoc analysis involves hunting through the data for any significance that is, doing an entire set of comparisons to find out which pairs are significant. **(Field, 2005)[83]**. There are number of post hoc tests available. Tukey's honestly significant difference (HSD) test is more popular **(Coakes, 2005)[84]**.

1.8.4.9 Kruskal-Wallis Test or H-Test

Kruskal-Wallis test is similar to ANOVA in many ways. In case of Kruskal-Wallis test, all the data are ranked as if they are in one sample, from lowest to highest and rank sums of each sample are calculated. H statistics is calculated from the following formula:

$$H = \frac{12}{N(N+1)}\left(\frac{R_1 x R_1}{n_1} + \frac{R_2 x R_2}{n_2} + \ldots\ldots\ldots\ldots + \frac{R_k \times R_k}{n_k}\right) - 3(n+1)$$

Where, n_1, n_2,……. n_k are the number in each of k samples, $N=n_1 + n_2 +……..+ n_k$ and R_1, R_2,…….R_k are the rank sums of each sample. If the calculated value of H is less than the table value, the null hypotheses are accepted and if calculated value is more than the table value, the null hypotheses are rejected **(Gupta, 2010)**[82].

1.8.4.10 Multiple Correlations

When the researcher is interested in the combined influence of group of variables upon a variable not included in the group, the study is that of multiple correlations. The correlation is the association of any two variables. A positive correlation results if one variable increases and the other variable also increases. A negative correlation occurs when one variable increases, the other decreases. The coefficient of correlation is a relative measure and the relationship between variables which are expressed in different units can be compared. Of the several methods of measuring correlation, Karl Pearson's method (Parametric) and Spearman's method (Non-parametric) are most widely used in practice **(Cunningham and Aldrich, 2012)**[85].

1.8.4.11 Multiple Regressions

Most of the researchers often depend on multiple regressions in predicting the value of a dependent or response or outcome variable based on the values of more than one independent or explanatory or predictor variables. The general multiple linear regression model can be expressed as-

$$Yi = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \ldots\ldots\ldots\ldots\ldots\ldots\ldots + \beta_n X_n + \varepsilon i$$

where, β_0, β_1, β_2……..β_n are regression co-efficients of predictors X_1, X_2, ……. X_n , i= 1,2,3,……n and εi is the error term.

In multiple linear regression model, the predictors are strictly assumed to be fixed i.e., X_1, X_2, X_3……X_n are fixed variables that are controlled by the experimenter while Y_i is a continuous random variable.

There are many assumptions of multiple regressions but in practice, major ones are considered by most of the researchers. These are normality, linearity, heteroscedasticity, multi-co-linearity, outliers etc. In multiple regression analysis, the various steps to be followed are formulation of hypotheses of independent variables, checking the assumptions and making the modification by transforming the data, if necessary and estimating the model parameters **(Field, 2005)**[83].

1.8.4.12 Transforming Data

To deal with the problem of normality, outliers, unequal variances etc., the data can be transformed. The purpose of transformation of data is to correct the distributional problems. There are various transformations that are helpful in correcting various assumption problems such as square root transformation, log transformation, reciprocal transformation etc. which can be used by good old fashioned trial and error method to suit the purpose **(Field, 2012)**[86].

1.8.5 Scope and Limitations of the Study

The scope of the study is limited to 13(thirteen) life insurance companies in India that are fully in operation throughout the study period The study is based on secondary data and as such the research work can not eliminate the limitations that are inherent in a compiled statement. The study is limited to the assessment of financial performance of life insurance companies in India and this assessment is based on ratios compiled from the data as per financial statements relating to liquidity, profitability and solvency. The entry and exit of new insurance players in the market and economic, political and regulatory effects during the study period may have impact on the financial performance of life insurance companies selected for the study have been ignored and the selected companies taken together may be assumed to constitute a life insurance industry in India throughout the study period. As the study is primarily based on ratio analysis and it is known that ratio analysis has its own limitations.

1.9 Chapter Plan

Chapter-I: Introduction

Chapter-2: Life Insurance Companies in India-An Overview

Chapter-3: Profitability Analysis

Chapter-4: Solvency Analysis

Chapter-5: Liquidity Analysis

Chapter-6: Overall Financial Performance Analysis

Chapter-7: Findings, Suggestions and Conclusion.

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