CHAPTER -4
REVIEW OF LITERATURE
&
RESEARCH METHODOLOGY

4.1 INTRODUCTION
4.2 THE TITLE OF THE PROBLEM
4.3 REVIEW OF LITERATURE
4.4 SCOPE OF THE STUDY
4.5 NATURE OF THE STUDY
4.6 OBJECTIVES OF STUDY
4.7 HYPOTHESIS OF THE STUDY
4.8 RESEARCH DESIGN
4.9 SAMPLE OF THE STUDY
4.10 SOURCE OF DATA
4.11 RESEARCH METHODOLOGY
4.12 PERIOD OF THE STUDY
4.13 SIGNIFICANCE OF THE STUDY
4.14 LIMITATION OF THE STUDY
4.15 FURTHER SCOPE OF THE STUDY
4.16 CHAPTER PLAN
4.17 REFERENCES
4.1 INTRODUCTION

Insurance is an idea of the people, by the people and for the people an insurer therefore can’t be adversed to a popular sentiment. Insurance and social well being for social economy is therefore in forever flourish of one leads to the flourish of the other and vice versa. Insurance is basically a co-operative Endeavour. It is a noble portfolio where in assurance is offered against contingencies and / or for tuitions. The subject matters of assurance may relate to life or non-life matter in either case, it mitigate the hardship caused to individuals and through them to society. This helps in keeping the economy sound. Insurance business has emerged as one of the prominent areas of financial services during recent times. Insurance performs remarkable function by insuring the insurable public and property located at different places. Nowadays in India, insurance sector is most developing business area. Through the process of LPG, Indian economy has been opened up for foreign players as well as private players. In the light of the economic reform process. Insurance process has been opened up since 1999 for privatesector and foreign players. To regulate insurance sector in India IRDA has been set up.

The General insurance industry selected for the present study on account of number of important factors. The General insurance industry has been playing vital role in the development of the economy of India. General insurance industry is backbone of every economy. General insurance industry is one of the most biggest industry in all over the world. Last decades General insurance industry achieves study growth by attractive regular flow investment and make strong industry.

Generally, Industries raises their funds by various sources like equity share, capital preference share capital, debentures, bonds, deposits etc. It is the most important and crucial problem for every industry to determine the financial requirements. Which are the source of funds ? How to raise funds at minimum costs ?
An investor is interested in information regarding the exact financial position of the business, its earning capacity, the present position with regard to profitability and future possibilities. He has only the published accounts of the company before him which would enable him to take any decision with respect to investing his money.

The published accounts contain Revenue Account, P & L Accounts, Balance sheet. The earning capacity and past results could be ascertained from the P & L Accounts and the idea about financial positions can be had from the balance sheets.

However actual conclusion can not be drawn from the mass figures included in the financial statements. So the financial analysis of General insurance companies must be necessary.

4.2 THE TITLE OF THE PROBLEM:-

The title at the problem selected for this study is

“A COMPARATIVE STUDY OF FINANCIAL STATEMENT ANALYSIS OF GENERAL INSURANCE COMPANIES IN INDIA.”

4.3 REVIEW OF LITERATURE:-

In this chapter, an endeavour has been made to provide an overview of various aspects and issues related to this research work through the review of studies already carried out both at the national and international level in the insurance sector. The review of literature can lead to draw some significant conclusions and serve as a guide mark for this study. It also gives a fair chance to identify one gap that exists in the area of research. Some of the important studies have been reviewed under different performance measures such as efficiency, productivity, profitability and service quality in the following.
1. Prof. S.J. Parmar has also analyzed the profitability and liquidity aspects at cement industries in his research under the title of “profitability analysis at cement industries in Gujarat state”
2. Shri N.P. Agrwal in this study at financial statements at Indian aluminum industries were analysed for the title at “analysis at financial statements”
3. D. S.C. Jain has made a study at profitability and other aspects of financial management at Indian industries.
4. **Title** :- “A Report on Ratio Analysis of the bank of Saurashtra at Rajkot”.
   **Researcher** :- Meera Singh
   **Year** :- 2009-2011
   **Degree** :- M.B.A
   **University** :- Saurashtra University
   **Objective** :-
   The present study has been undertaken with following objectives:
   - To study the growth and development of SBS.
   - To study the trends in finance and analyze various elements in financial analysis.
   - To evaluate the financial position of BCCB.
   - To calculate and estimate the important financial ratios as a part of financial analysis in BCCB.
   - To offer suggestions to improve financial position of the bank.
   - To study the financial strength and weakness of the BCCB.
   **Universe** :- Banking Industry
   **Sampling** :- SBS Rajkot
   **Research Method** :- Ratio analysis and t-test used.
   **Conclusion** :-
   - Results of ratio analysis show that the SBS’s performance is quite good but some more efforts are required for the financial operation.
According to my opinion and observation I felt that the future of this bank is very bright.

5. **Title**: “A study of financial analysis of Reliance Industries limited”

**Researcher** :- Lalit. M Vaniya

**Year** :- March - 2008

**Degree** :- Master Of Philosophy in commerce

**University** :- Saurashtra University, Rajkot

**Objective** :- The main objective at the study.

- To understand financial analysis and it’s conceptual framework
- To evaluate the financial analysis with financial statements
- To textile units at reliance industries limited

**Universe** :- Reliance Industry

**Sampling** :- Reliance textile industries

**Research Method** :- Financial statement analysis and t-test used.

**Conclusion** :-

- It can be maintained that the position regarding the net margin is better than that at the operating profit margin at reliance industries limited.
- The total assets turnover ratio which shows the firms ability of generating sales. From all the financial resources. Committed to the firm, have increased during the period under review, except in the year 2003 in case at both the units.
- If properly analyzed and interprets, financial statement can provide valuable insight into a firm’s performance.
- According to my opinion and observation I felt that the future of this textile is very bright.

6. **Title** :- “Performance Evaluation of Mineral based industrial unit (with reference to Ashapura Minechem Ltd.)”

**Researcher** :- Kiran J. Goswami

**Year** :- 2009
Degree : Master Of Philosophy in commerce
University : K.S.K.V Kachchh University
Objective : The main objective at the study.
- To Study growth and Development Of Ashapura Minechem Ltd.
- To evaluate the financial Position of Ashapura Minechem Ltd.
- To study Ratio Analysis of Ashapura Minechem Ltd.

Universe : Mineral Industry
Sampling : Ashapura Minechem Ltd.
Research Method : Ratio analysis and F-test and t-test used.

Conclusion :
- All Ratios except liquidity Ratio represents positive Attitude of the company.
- In addition Activity Rate, Profitability And capital structure’s strength is high so the condition of company is good.
- Here If working/current Assets Ratio will maintain the company doing best work.

7. Title : “A study on financial Efficiency of Gujarat state Road Transportation Corporation.”

Researcher : Zala Yuvarajshin. G
Year : 2008-2009
Degree : Master Of Philosophy in commerce
University : k.s.k.v kachchh university, bhuj
Objective : The main objective at the study.
- To Study Ratio analysis of Gujarat state Road Transportation Corporation.
- To evaluate the financial Position Gujarat state Road Transportation Corporation.

Universe : Transportation Industry
Sampling : Gujarat state Road Transportation Corporation.
Research Method : Ratio analysis and F-test
Conclusion :-

- Gujarat state Road Transportation Corporation.
  has occurred losses
- For bring out from losses necessary steps should be taken through government, public and employees of Gujarat state Road Transportation Corporation.

8. Title :- “A study of profitability analysis Cement companies of India”

Researcher :- Urvashi D. Daiya
Year :- 2009
Degree :- Master Of Philosophy in commerce
University :- K.S.K.V. Kachchh University
Objective :- The main objective at the study.
  - To understand Profitability analysis and it’s conceptual framework
  - To evaluate the Profitability analysis with financial statements
Universe :- Cement Industry
Sampling :- APCL, DCL, DCBL, MCL AND UTCL
Research Method :- Financial statement analysis and t-test used.

Conclusion :-

- We can conclude that the performance of companies is poor who get Rank-1
- Performance satisfactory who get Rank – 2
- And get good Performance with Rank – 3
- Here APCL & DCL shows poor Performance while DCBL & MCL shows satisfactory Performance.
- UTCL Ranks the best showing good performance.

9. Title :- “Financial Performance Evaluation of Steel industry of India”

Researcher :- Prof. Shital kumar. M kanani
Year :- 2009
Degree :- Master Of Philosophy in commerce
University :- K.S.K.V. Kachchh University

Objective :- The main objective at the study.

- To study financial position of steel Industry in India
- To evaluate market strength of steel industry in India
- To study profitability of steel industry in India

Universe :- Steel Industry

Sampling :- steel industry of India

Research Method :- Ratio analysis and t-test used.

Conclusion :-

- The steel industry has need of huge capital. So govt. should give huge loan at a minimum rate of interest.
- Government take necessary steps for minimization of unemployment through development of steel Industries.
- Under this study which company in losses should merge in big company and better company and this purpose govt. release supporting policy.
- In steel industries should adopt modern technology and reduce cost and make strong financial position.

10. Title :- “Financial Performance Appraisal towards Birla V.X.L Ltd.”

Researcher :- J.B. sinh

Year :- 1999

Degree :- Master Of Philosophy in commerce

University :- Saurashtra University

Objective :- The main objective at the study.

- To understand financial Performance appraisal
- To evaluate the financial analysis with financial statements
- To study profitability position of birla v.x.l ltd

Universe :- Birla Group

Sampling :- Birla V.X.L Ltd.

Research Method :- Ratio analysis and F-test, chi square
test and t-test used.

**Conclusion**: 
- In this study we know that the production is not steady. But productivity is good but production is not increase year to year.
- Cost of Raw Material should be reduce by the company
- The fixed assets of the Birla V.X.L Ltd. is more
- By using of modern technology company’s profitability is increased.

11. B. Shankaran has made a research regarding how “CIPLA” the pharmaceutical company could perform better financially than other Indian companies in his study under the title at “financial performance evaluation in India”

12. Shri Y.G.Rao has studies the financial aspects including operational performance and profitability at major ports in India under the title at “financial management in public undertaking “

13. Financial performance analysis at the anise housing corporations in the state at Rajasthan, Madhya Pradesh, Andhra Pradesh, Orissa and Haryana was made by B.R. Choyol in his study of financial management at state enterprises.

14. Dutts S.K wrote an article on “Indian tea industry an appraisal which was published in year march 1992. He analyzed profitability, liquidity and financial efficiency by using various ratio”

15. A case study of KDIIFV to analyze the return an investment was published in “The Indian journal of commerce” studied by K.N. Babu

16. Dr. D.K. Ghosh covered 18 companies having paid up capital Rs.50/- laces ire nine fridge overbid firm 1972 to 1996 in his study he analyzed income statements and balance sheets.

17. Dr. pramod kumar studied the Indian industries covering 17 sector, 5 state owned and 1 central public sector to analyze its profitability, financial structure, investment structure,

18. The dissertation of kacha geeta on analysis of financial statements of two Wheeler industries has attempted to study profitability and liquidity of selected companies using various ratios.
19. The most recent and pioneering work was done in the year 2002 by Dr. P.S Hirani on “Profitability analysis of paper industry”. For this study on profit measurement he has used various tools & techniques.

20. Financial performance evaluation of Godrej industries by jadeja indrajeetsinh D M.phil 2010 suarashtra university


22. Oil India Ltd and O.N.G.C ltd. A comparative study of financial analysis by sandip arora m.phil 2005 Gujarat university


24. Hammond et al. (1971), analyzed the extent to which economies of scale exist in the property and liability insurance industry. The sample for the study was comprised of 173 companies in all, which included 88 mutual insurers and 85 stock insurers in the year 1967. The analysis centres upon operating expenses and claim costs. The cost effects on principal non-size variables, such as the legal form of organisation, type of distribution system used, business mix, and the amount of insurance written in relation to policyholder surplus were also considered. The authors concluded that economies generally exist with operating expenses, and diseconomies exist with loss costs. No evidence of U-shaped cost curves was present. The trend showed that the average costs for operating expenses appear to decline with size and to level out as larger premium volumes are achieved.

25. Neil (1981), in his paper, discussed conceptual and econometric problems arising from the use of premium income as a proxy for outputs. The study suggested that this measure is appropriate if the product is homogeneous and competitive pressures compel all insurers to charge the same price. It has also been found that previous studies of the cost functions of property and liability insurers have revealed mixed evidence of any economies of scale.

26. Almost all of these studies have used premium income as the output measure and
This choice has been criticized as being inappropriate in the face of market imperfections. Using Canadian data, it was shown that the choice of output measure can significantly affect the conclusions drawn regarding scale economies. Since premium rates appear to be negatively related to firm size, the use of a premium based on output measure might fail to reveal or understate the extent of scale economies. This paper used a claim based on output measure. The data used was taken from among a cross-section sample comprising 69 insurers of Canada and the time period was taken from 1976-78. The use of claim based measure does involve some econometric problems; though these might be less severe than those arising with the use of premiums. The results are promising and suggest evidence of significant scale economies in Canadian property-liability insurance.

27. Goran (1982), in his research article, used cross-section regressions to evaluate the extent of economies of scale in the Swedish property-liability insurance industry. The data was collected from all insurance companies in Sweden. This study used claim volume as a measure of output instead of premium. Several reasons exist for using claim paid instead of premium income as the measure of output of an insurance firm. The use of premium income as an output measure results in a simultaneity bias such that economies of scale are underestimated. For the sake of comparison, all regressions conducted with claim volume have also been duplicated using premium income. The results showed that the premium income is less prone to reveal returns to scale when such returns exist. The study brought out that the economy of scale does exist in property-liability insurance administration. However, no economies were detected for third party automobile insurance for recent years.

28. Weiss (1987), in his study, examined insurance output estimation on the national income accounts and proposed methodological changes in the computation of these estimates. The main objective of this study was to explore theoretical and practical output measurement principles for insurance at the national level. The time period of the study was 1972-82, and a sample of 63 insurers was taken. The research indicated that insurance output is understated by as much as 12 per cent
in the national income accounts in recent years. Further, analysis of non-life and health insurance output shows that output in these sectors has been increasing at an average rate of 3 per cent each year from 1972 to 1982 and that output prices have increased at an average rate of 6.1 per cent over the same period. The study concluded that the Bureau of Economic Analysis (BEA) current and constant dollar insurance GPO estimates understate the real value added by the insurance sector.

29. **Weiss (1991)**, examined the cost impact resulting from property liability insurer in efficiency. The chief objective of this research was to measure the economic efficiency of P/L insurers. The study consists of 100 largest P/L insurers and the period covered is from 1980 to 1984. The output was incurred losses and inputs were labour expenses, intermediate expenses and capital. A generalized leontief profit function which allows for allocative and scale efficiency was estimated. The results indicate that excessive costs of $121.8 to $ 318 million occurred on the average. This cost represents 12.6 to 33 per cent of average net premiums and is roughly comparable to the increase in premium rates in sensitive liability lines (e.g. auto insurance). The study indicated that the excessive costs from non-optimal use of resources are estimated by this type of inefficiency.

30. **Cummins et al. (1996)**, in their paper examined technical efficiency and productivity growth in the Italian Insurance market. The study measured technical efficiency and productivity growth by estimating production frontier based on a sample of 94 Italian insurance companies for the period 1985. To analyse these input-oriented distance functions, DEA was used and productivity growth was measured using malmquist indices which were decomposed into technical efficiency change and technical change. The study used benefits plus changes in reserves as output in life insurance and incurred losses plus invested assets as output in non-life insurance. The inputs used were acquisition labour expense, administrative labour expense, fixed capital and equity capital. The research concluded that technical efficiency in the Italian insurance industry ranged from 70 to 78 per cent during the study period. However, productivity declined significantly over the sample period, with a cumulative decline of about
25 per cent. It was implied that the insurers needed more inputs to produce their outputs at the end of the period than at the beginning. It was observed that in a dynamically changing environment many insurers might be adopting new approaches to produce their outputs. This provides more opportunities for firms to make mistakes in the choice of technology, perhaps leading to excessive consumption of inputs even by the "best practice" firms. An increase in the complexity of insurance products and markets could have a similar effect. The research concluded that the firms that fail to improve are likely to be penalized by the market.

31. **Rai (1996)**, examined the cost efficiency of insurance firms located in 11 countries over a five year period from 1988 to 1992. The output used was premium as consistent with other studies and three inputs, namely, labour, capital benefits and claims were used. Two methods of measuring x-in efficiency were used by the stochastic cost frontier model and the distribution free model. The results showed that x- in efficiencies not only varied by country but by size and specialization also. Firms in Finland and France have the lowest x- in efficiency, while firms in the United Kingdom have the highest. On an average, small firms were more cost efficient than large firms worldwide. The results also indicated that x- in efficiency estimates derived from the stochastic cost frontier model were more suitable for this sample of data than those derived from the distribution free model.

32. **Donni and Fecher (1997)**, in their research paper, measured the technical efficiency levels in 15 OECD insurance industries over the period 1983 and to decompose productivity changes into technical progress and efficiency variations. The outputs were measured both by life and non-life net premiums at constant prices and in US dollars corresponding to 1985 purchasing power parity and input was labour including intermediaries who sell insurance without being employed by the companies. The paper showed that the growth in productivity observed in all countries is essentially imputable to improvements in technical progress. Reinsurance rates and market share in OECD both seem to favour efficiency levels.
33. **Cummins and Weiss (1998)**, in their paper titled, “Analyzing Firm Performance in the Insurance Industry using Frontier Efficiency Method” explained modern frontier efficiency methodologies which were rapidly becoming the dominant approach for measuring a firm's performance. These methodologies estimate efficient technical, cost, revenue and profit frontiers by comparing each firm in the industry to a reference set consisting of all other firms. The frontiers can thus be considered "best practice" frontiers. The two primary methods for estimating efficient frontiers were the econometric approach and the mathematical programming approach. The econometric approach involved estimating a cost, revenue or profit function, while the mathematical programming approach is usually implemented using linear programming. The implementation that is used most frequently is Data Envelopment Analysis (DEA). An important step in efficiency analysis is the definition of inputs, outputs and prices. The authors concluded that frontier efficiency methods dominate traditional techniques in terms of developing meaningful and reliable measures of insurance firm performance.

34. **McIntosh (1998)**, in his article, investigated the scale efficiency in the Canadian insurance industry. He used an interporal product differentiation oligopoly model, estimated on a panel of federally charted insurance companies for the period 1988 to 1991. Significant short run scale economies were found with respect to both the output of new policies and the stock of policies issued in previous periods. It provided some evidence that certain types of mergers might lead to lower premiums, and consequently to an increase in the welfare of both producers and consumers of insurance products.

35. **Ray et al. (1999)**, in their paper, surveyed pre-1994 regulation in Germany and the UK, and the European Commission"s policy. They argued that it was unlikely that the policy would have a significant impact on direct international competition between European insurance markets until there was standardization of insurance law. The study found that the tightly regulated markets would become more like the loosely regulated UK market. The paper evaluated this outcome and concluded that the European Commission"s policy may thereby
have improved the welfare of insurance buyers in the previously highly regulated countries such as Germany. The paper also used efficiency frontier estimation to compare the dispersion of firm efficiencies in the German and British life insurance market. The results supported the hypothesis that tighter solvency regulation allowed the survival of a larger proportion of higher-cost firms.

36. Cummins et al. (1999), in their paper, analysed the relative efficiency of alternative organisation forms in an industry. For this purpose, to estimate the evolution of efficiency and technical change in the industry, a complete panel of insurers with data continuously available over the sample period 1981-90 was taken. The decision making unit (DMUS) in the insurance industry consisted of all groups and un-affiliated insurers for which there were 206 stock insurers and 211 mutual insurers. To analyse production frontier, the study employed the input-oriented DEA. The malmquist index approach was used to measure technical efficiency change and technical change. The value added approach was used to measure the insurers output. So, the present values of losses incurred were taken as insurance output and labour business services, debt capital and equity capital were taken as inputs. The results indicated that stocks and mutual insurers are operating on separate production and cost frontiers, and thus, represent distinct technologies. Consistent with the managerial discretion hypothesis, the stock technology dominates the mutual technology for producing stock outputs and the mutual technology dominates the stock technology for producing mutual outputs. However, consistent with the expense preference hypothesis, the stock insurers cost frontier dominates the mutual insurers cost frontier.

37. Brown (2000), in his paper, outlined the rationale for applying methodologies developed to estimate different kinds of efficiencies of insurer. The data of 100 largest General insurers of UK for the year 1998 were taken. The data envelopment analysis (DEA) were used to analyze the data. The study used five models of input and output, and started with the simplest—where there was one output-net written premium and one input-net operating expenses. In the second model, financial capital was added as the second input. The third model included
reinsurance as input and gross premium as outputs. The fourth model used output as the net written premium, investment income and input as net operating expenses, capital and technical provisions. In the fifth model, output was taken as the gross premium instead of net premium and also used reinsurance as input. The results suggested that there were increasing return to scale for the smaller companies and decreasing return to scale for the larger companies, for their risk bearing/risk pooling services taken as a whole.

38. **Mansor and Radam (2000)**, in their study, measured the productivity of life insurance industry in Malaysia by employing the non-parametric malmquist index approach. The study employed data envelopment analysis (DEA) to measure technical efficiency, technical changes and factor productivity. The data of 12 Malaysian insurance companies over the period 1987 to 1997 was taken. Three variables were used as output, namely, new policy issued, premium and policy in force and five inputs were used namely claims, commission, salaries, expenses and other cost. The results indicated that despite the productivity growth in the insurance industry, it was relatively low compared to the real economic growth experienced by Malaysia. The study found that like the manufacturing sector the future growth of the insurance industry would depend on its ability to compete efficiently. Being able to provide service in an efficient way would be an important source of comparative advantage under the era of globalisation. The results also suggested that both technical efficiency and technical progress contribute to the overall productivity growth of the industry.

39. **Diacon (2001)**, in his paper, explored the efficiency of UK specialist and composite insurer transacting general insurance business. The concept of efficiency concerns as insurers' ability to produce a given set of outputs (such as premiums and investment income) via the use of inputs, such as administrative and sales staff and financial capital. The study uses the variable returns to scale Farrell efficiency scores formulation of the well-known data envelopment analysis (DEA) to identify the locally efficient and inefficient insurers within each country. A comparison is then undertaken for all insurers after adjusting the
impact of their local efficiency. Traditionally the efficiency of insurance firms has often been measured by key ratios such as the expenses and claims ratios, the solvency margin and the return on invested assets. It is generally impossible to identify the best practice decision-making unit since it is unlikely that all ratios will point to the same firm. An insurer is said to be technically efficient if it cannot reduce its resource usage without some corresponding reduction in outputs given the current state of production technology in the industry. This study uses four inputs namely, total operating expenses, total capital, total technical reserve, and total borrowing from credits and three outputs namely, general insurance net earned premium, long-term insurance net earned premium and total investment income. Estimates of Farrell efficiency and the projected values for inputs and outputs are obtained by using the input- oriented variable returns to scale formulation of data envelopment analysis. The results indicate that UK general and composite insurance companies have the potential to be among the most efficient in Europe.

40. Diacon et al. (2002), in their research paper, explored the efficiency of European specialist and composite insurers transacting long-term insurance business. An exploration of the value based measure of the insurance company inputs and outputs were utilized to measure technical efficiency of long-term insurers by comparing the performance of approximately 450 insurers licensed in fifteen European countries using data from Standard and Poor's Eurothesys database. The efficiency analysis used the variable returns to scale formulation of the well-known data envelopment model to compute the pure technical, scale and mix efficiencies of each insurer relative to an European efficiency frontier for each year between 1996 to 1999. The objective of this study was to identity the best practice companies operating in the European long- term insurance market, and then to benchmark all other insurers against these. The study used total operating expenses, capital, technical reserves and borrowings as the main inputs premiums and investment income as the main outputs. It is clear from the analysis that there were wide variations in all types of efficiency. The more efficient insurance companies in technical terms are likely to be either very large or very small.
(specialist) companies. Mutuality and financial securities were also conducive to technical efficiency. It was found that insurers transacting long-term business in the UK, Spain, Sweden and Denmark were likely to have the highest average levels of technical efficiency. Secondly, UK insurers appear to have particularly low levels of scale and mix efficiency when compared to their European counterparts. It was also observed that average technical efficiency declined over the four years of the study.

41. Ennsfellner et al. (2004), examined the development in the production efficiency of the Austrian insurance market for the period 1994 using firm-specific data on life/health and non-life insurers obtained from the Austrian insurance regulatory authority. Bayesian stochastic frontier was used to obtain aggregate and firm-specific estimates of production efficiency across insurer types and time. The paper used same inputs for health, life and non-life insurers, namely, net operating expenses, equity capital and technical provisions net of reinsurance and outputs for health; and life insurers, namely, incurred benefits net of reinsurance, changes in reserves net of reinsurance and total invested assets; and outputs for non-life insurers, namely, claim incurred net of reinsurance, and total invested assets. The study provides strong evidence that the process of deregulation had positive effects on the production efficiency of Austrian insurers. The life/health and non-life firms showed similar patterns of development in that they were less efficient during the years 1994-96 and significantly more efficient in 1997-99. If the Austrian experience is representative, similar benefits from deregulation may be expected for the Central and Eastern European countries that prepare for the accession to the European Union.

42. Brockett et al. (2005), in their research article, used the non-parametric properties of data envelopment analysis (DEA) to study the relative efficiency of the different organisation structures used by U.S. property and liability insurance companies. The study covered 1114 stock and 410 mutual P & L insurance companies for the year 1989. This total of 1524 companies decomposed into 1201 using "Agency" and 323 using "Direct" types of marketing and this enabled to study both efficiency and solvency in the various combinations of company
and marketing systems. In the financial intermediary approach, the inputs were taken as surplus previous year, change in capital and surplus underwriting and investment expenses and policyholders supplied debt capital and outputs were taken as rate of return on investment, liquid assets to liabilities (Claim-paying ability), and solvency scores. The variables used in the production approach for inputs were labour expense, business services, equity capital and output were losses. The research compared the financial intermediary approach with production entity i.e. value added approach and recommended the use of intermediary approach. The intermediary approach reflected that the stock insurers firms tend to have much more inefficiency (over utilization) in the input dimension than does the mutual organisation firm, particularly in the inputs of surplus and expenses. On the other hand, mutual insurers show a much higher shortfall in all areas of outputs. Mutual insurance companies' underproduction of ROI may be attributable to their different goals as described in the introduction. Concerning agency versus direct marketing distribution systems, the research saw no similar dichotomy wherein slack variables appear, as direct marketing systems have more inefficiencies than does the agency system in terms of both input over utilization and output shortfalls. On the other hand, using the production approach it was found that the firm is inefficient because of output shortfall where the output in losses leads to the remedy of increasing losses, a clearly not advisable strategic solution in the long run.

43. **Choi and Weiss (2005)**, in their study, analysed the relationships among market structure and performance in property liability insurers over the period 1992-98 using data at the company and group levels. Three specific hypotheses, namely, traditional structure-conduct performance, relative market power, and efficient structure were analysed. The results supported efficient structure hypothesis, which indicates that more efficient firms can charge lower prices than competitors, enabling them to capture larger market shares and economic rents, leading to increased concentration. Both revenue and cost efficiency were used. The overall results suggested that cost efficient firms charge lower prices and
earn higher profits, in conformance with the ES hypothesis. Secondly, prices and profits were found to be higher for revenue efficient firms.

44. **Jeng and Lai (2005)**, in their article, used the non-parametric frontier method to examine differences in efficiency for three unique organisational firms in the Japanese non-life insurance industry, Keiretsu firms, non-specialized independent firms (NSIFs), and specialized Independent firms (SIFs). The data of Japanese non-life insurance companies from 1983 to 1994 was considered for the study. Two approaches were used to analyse the data, viz. value-added approach and intermediary approach. In value added approach, the output was used as number of policies and total invested assets and inputs were used as labour, business service, debt capital and equity capital. On the other hand, in the financial intermediary approach output was taken as return on assets and inputs were equity capital, underwriting and investment expenses and debt capital supplied by policyholders. The results showed that it is not possible to reject the null hypothesis that efficiencies are equal with one exception. Keiretsu firms seem to be more cost-efficient than NSIFs. The study also indicated that the productivity changes across the different organizational forms revealed deteriorating efficiency for all three types of firms throughout the study period. The paper revealed that the value added approach and the financial intermediary approach provide different but complementary results.

45. **Sinha (2006)**, attempted to compare the operating efficiency of life insurance companies for the financial year 2004-05 using the DEA. In this paper, operating income and net premium income have been taken as the output and the number of agents employed and equity capital as the inputs. The comparison of the efficiency score showed that the private insurance companies are still lagging behind LIC, in terms of the net premium income. Not only LIC, but 'SBI Life' also has a technical efficiency score of 1, i.e., these two companies were declared technically efficient (given the inputs utilized they produce the maximum observable output). All other private life insurance companies had the technical efficiency score less than 1, in terms of operating income. No life insurance company except LIC was found technically efficient.
46. **Sinha (2007)**, in his article, compared the performance of four public sector & eight private sector general insurance companies in respect of technical efficiency, scale efficiency and total factor productivity for the years 2003-04 and 2004-05 by using data envelopment analysis and malmquist total factor productivity index. The present study has taken two outputs: Net Premium Income and Gross Income, and three inputs, viz. equity capital, operating expense and number of agents. The results indicated that the public sector insurance companies exhibited higher mean technical efficiency than the observed private companies (income as the output). However, in respect of gross income as the output indicator, the result is contingent on the return to scale. Under constant return to scale, the public sector insurance dominates the private sector in terms of means technical efficiency, while under variable return scale the private sector insurance has a marginally higher technical efficiency than the public sector insurance companies.

47. **Leverty and Grace (2008)**, examined two methods for measuring Property-Liability Insurer efficiency; the value added approach and the flow (or financial intermediation) approach. To perform the efficiency analysis, the DEA and the range adjusted measure (RAM) were used. The data pertains to the period 1989 to 2000 taken from the annual statements filed by insurers with the NAIC of all P/L insurers. The inputs used in value added approach were administrative labour, agent labour, material & business services, financial equity capital and policyholder supplied debt capital and the output was the present value of losses incurred. The inputs used in flow approach were policyholder surplus, underwriting and investment expenses, policyholder supplied debt capital; and outputs were the rate of return on investments, liquid assets to liabilities, and solvency score. The results showed that approaches are not mutually consistent. The value added approach is closely related to traditional measures of firm performance but the flow approach is generally not. In addition, efficient value added approach firms are less likely to go insolvent, while firms characterized as efficient by the flow approach are generally more likely to fail. The research also
found that the theoretical concern regarding the value added approach's use of losses as a measure of output is not validated empirically.

48. **Jenlin and Wen (2008),** in their paper, applied stochastic frontier approach to investigate the relationship between cost efficiency and the risk management mechanism adopted by a group of property/ liability insurance companies that include both organisation forms of stock and mutual insurers for the year 2003. There were 334 stock and 206 mutual US insurance companies. The paper adopted intermediary approach where input was taken as the total cost including the cost related to investment expenses and underwriting expenses and the output was taken as the quantity measured by the ratio of net investment income to total assets and the ratio of total loss incurred to net premium written. The results indicated that the use of financial derivatives in managing investment risks can enhance the cost efficiency while the use of reinsurance in managing underwriting risks cannot. The study suggested that holding a higher level of surplus compared to the regulatory required a capital level unexpectedly increase the variance of cost inefficiency.

49. **Bikker and Gorter (2008),** analysed competition in the Dutch non-life insurance industry indirectly by measuring scale economies and X inefficiency, assuming that strong competition would force insurance firms to exploit unused scale economies and to push down inefficiencies. This study used a detailed dataset on all Dutch non-life insurers during the period 1995-2005 and initially consisted of 2994 firms of which 296 firms were excluded because of missing data, on account of Zero or negative values for premium income. To measure scale economies a simple cost function was used and cost X inefficiency measured on the basis of difference in cost levels among insurance firms. The research observes substantial economies of scale (on average 11 per cent) that are larger for smaller firms. Despite considerable consolidation in the industry over the last decade, scale economies have increased, as the optimal scale has outgrown the actual one. Comparing estimates across aggregation levels, the research found that the scale economies are smaller for groups and lines of business than they are for firms. Besides scale, focus and organizational form are important cost
determinants as well: generally, specialized insurers have lower costs and face
greater economics of scale. Estimates of thick frontier efficiency point to huge
cost differences across firms and within lines of business. Overall, our results
suggest that there is a lack of competitive pressure in the Dutch non-life
insurance industry.

50. Garg and Deepti (2008), in their paper, compared the technical and scale
efficiency of twelve general insurance companies in India for the period 2002-03
to 2005-06 by using output-oriented Data Envelopment Analysis (DEA). Three
models of input and output were used. Model I represents output as net premium
income and input as number of agents, operating expense; Model II represents
output as operating income and inputs as number of agents, operating expenses
and equity capital. The results showed that among the public sector general
insurance companies, New India is the only company which turned out to be
technically efficient on both constant returns to scale and variable returns to scale
for the whole period of study. Among the private insurers, HDFC Chubb
managed to retain 100 percent efficiency for the last three years on both VRS &
CRS. Average efficiency results indicated that though private insurers lag behind
public insurers, they are fast catching up and the efficiency scores of private
insurers seem to improve.

51. Sinha (2009), in his paper, compared the technical efficiency of four public
sector and six private sector general insurance companies using a non-radial data
envelopment analysis. The time period of the study was 2003-04 to 2005-06. The
outputs were considered net premium income and operating income; and inputs
were considered as operating expenses. The study showed that there was a
decline in the mean technical efficiency in 2004-05 relative to 2003-04, but it
increased again in 2005-06. Among the observed general insurance companies,
Reliance and New India consistently occupied the top two slots for all the years.

53. Norgaard and Schick (1970), determined how profitable property and liability
insurance companies had been during the period 1953-67. The technique used is
based on a risk return trend analysis. For this purpose, four random samples and
one selected sample of insurance companies are compared with 622 major
industrial corporations. It was found that insurance companies earned profits at par with those earned by the major industrial corporations. Among insurance companies, automobile underwriters performed considerably better than multiple line of fire and allied line underwriters. The data indicated that within the insurance industry, there is an economy of scale in degree of specialization and size.

54. Hussain and Islam (1996), in their article, evaluated the accounting policies disclosed in the financial statements of the insurance companies in Bangladesh. The study found that despite some shortcomings, disclosure practices relating to accounting policies of the insurance companies in Bangladesh deserve high appreciation. It was observed that 100 per cent of surveyed companies disclosed accounting policies in their financial statement, as compared to 23 per cent found by Parry and Khan (1984) and 70 per cent by Alam (1990). This is, undoubtedly, a chronological development owing to disclosure consciousness in the company reporting.

55. Chidambaran et al. (1997), in their article, presented an empirical analysis of the economic performance of the U.S. property-liability insurance industry, using estimation across 18 lines of insurance for the years 1984 through 1983. The study adopted an industrial organisation at approach, focusing on the economic loss ratio as a measure of pricing performance. The research found that there are still questions about performance that are related to industry concentration. One explanation is that higher concentration is conducive to the muting of pricing rivalry. Another is that higher differences in firm efficiency result in both higher concentration and higher profit rates. These two explanations are not mutually exclusive, and the former is a plausible explanation for property-liability insurance. The study concluded that the concentration ratio for the line and the share of direct writers in the line are both found to be significant determinants of performance.

56. Baltelsmit and Bouzouita (1998), in their paper, examined the relationship between profitability and market structure in automobile insurance and tests for the existence of a positive relationship between concentration and performance.
The data for the study pertained to the period 1984 to 1992. The results showed a significant positive impact of concentration on profitability for combined liability and physical damage lines in private passenger automobile insurance. These results differ from previous studies using state level data from the previous decade but confirm.

57. **Rao (1998),** in his paper, examined the efficiency of the LIC, in physical and financial terms. Insurance, being essentially a service industry, a distinct set of criteria (both, physical and financial) had been developed to evaluate its overall efficiency. There has been a significant improvement in the physical performance of the LIC. But the financial performance in terms of profitability had not been up to the expected level. However, given the constraints of statutory regulations and government control, coupled with a highly cost-prone rural business, the financial performance may be considered as satisfactory, although there is a considerable scope for improvement. The LIC should vigorously try to improve its operational efficiency to benefit the policyholders and to compete in a liberalized environment.

58. **Verma (2000),** in her thesis, evaluated the performance of the GIC and its subsidiary companies over the years, throwing light on the probable effects of the various insurance sector reforms on the future development of General Insurance in the country. She also studied the origin, aims and functions of the corporation and its product development. The study was based on the published and primary data. The techniques like trend analysis, averages, graphs etc. were used to analyse the quantitative data. The study found that the GIC along with its subsidiaries has emerged not only as a strong insurance institution but also as an influential institutional investor in the financial market of India due to large amount of funds at its disposal. It made investment with the objective of safety and maximization of return. The underwriting results showed losses in about all the years except 1993-94. Despite the rise in premium income, the profit position had not improved due to rise in expenses, commission and net incurred claims at a higher rate than the growth premium income. The study suggested that GIC should bring reform in pricing the General Insurance contracts and use
information technology for better management, customer service, efficiency and competitiveness.

59. **Rudolf (2001)**, in his paper, examined the key factors and latest trends determining profitability in the major non-life insurance markets. The study focused on the non-life insurance markets of the group of seven countries (G7) mainly for the period 1996 to 2000. To analyse the profitability, investment results and underwriting results were compared between countries and across lines of business and to analyse the drivers of profitability, return on equity was decomposed into its main components namely underwriting results and investment income. The results indicated that only Germany and Japan did not have negative underwriting results and return on equity was high in UK, moderate in Canada and US, and low in France and Germany. The study found that underwriting result and investment yield are negatively correlated. The research suggested that due to uncertain prospects for investment results, the insurers must focus on underwriting results to achieve greater profitability.

60. **Brien (2001)**, in his paper, examined two questions, namely, has the conduct of the new entrants been different from that of the established players which has been the subject of criticism, secondly, what has been the performance of the new entrants? The study used 28 companies authorised to write long-term insurance in the UK in 1990-99. The paper indicated that there was a strong evidence that the new entrants have had high growth rates (in new businesses and assets) but, from a low base, they have made little impact in terms of market share. The largest new entrants, in terms of new business APE, are the investment house life companies. There have been large financing requirements for the new entrants, and they have tended to concentrate on no advice channels, paid less commission and granted higher surrender values in the early years.

61. **Sangmi (2002)**, in his study, analysed the profitability and identified the factors which are responsible for profitability performance of 10 selected public sector commercial banks in India. The period has been taken from 1991-92 to 1997-98. The study of the relationship of profit and components of profit, viz. spread, burden, interest revenue, non-interest revenue, interest cost, manpower cost,
facility cost etc. with working funds has been worked out by using the regression equation. The results indicated that the profitability in Class II banks was not satisfactory as compared to Class I banks. The main factors identified for such state of affairs were interest earned in the case of Class I banks were more than the interest paid by them. The Class I banks had been successful in earning larger income from non-fund activities than the Class II banks; and the operating costs in the case of Class II banks have been higher as compared to Class I banks.

62. **Verma (2003)**, in his research paper, examined what has gone wrong with auto insurance market and how to generate profit from this portfolio-in-trouble. The study found that the motor insurance is the biggest and fastest growing general insurance portfolio in the Indian markets. It accounts for more than 42 per cent of the cash flow of general insurers. The paper also indicates that motor portfolio is the key contributor in building the brand and corporate image of any insurer. It deals with the largest customer base. The insurance companies point out that they shell out crores of rupees more in losses and expenses than they earn each year in premium. They incur huge underwriting losses. On the other hand, consumer activists counter that insurers take home crores of rupees in investment on policyholders' funds that result in excessive profits. Both sides from their respective stand points are not incorrect. Insurers do incur underwriting losses and earn investment income. The study also found that the new private companies have shown a cautious approach. They are unwilling to insure commercial and old vehicles, and have preferred to stay away from this segment. The study suggested that insurers must act pro-actively on sound underwriting of business and better loss-prevention techniques.

63. **Lai and Limpaphayom (2003)**, in their study, examined the relation between organisational structure and firm performance in the Japanese non-life insurance industry.

The data used for this study has been collected from the annual special issues of the Statistics of Japanese Non-life Insurance Business published by the Insurance Research Institute of Japan and from the PACAP Japan database. As many as 26 non-life insurers for the period 1983 to 1994 were taken for the purpose of study.
The results indicated that the stock companies that belong to one of the six horizontal Keiretsu groups have lower expense and lower levels of free cash flow than independent stock and mutual insurance companies. Keiretsu insurers also have higher profitability and higher loss ratios than independent insurers. There was also evidence that mutual insurers have higher levels of free cash flows, higher investment incomes and lower financial leverage than their stock counterparts. Overall, empirical evidence suggested that each structure has its own comparative advantage.

64. Oetzel and Ghosh (2008), in his paper, explored the relationships between market liberalization and insurance firms' performance in emerging markets and developing countries. The sample for this study includes a data of 196 insurance companies operating in 16 different countries across Latin America and Asia. The dependent variable used to measure firm level performance was adjusted firm's profits. The variable was measured as profits before taxes divided by total firm assets, because data on firm profitability was easily available. The independent variables are 'type of firm' and 'the degree of market liberalization'. The results of the analysis suggest that the host country liberalization is positively associated with firm profitability for all insurers, foreign and local, operating in a given host country. No significant profitability differences were found between foreign and locally owned firms, although U.S. owned subsidiaries were significantly less profitable than subsidiaries from any other country. Additionally, firms located in Latin America had significantly less profitability than those operating in India.

65. Dhanda (2004), in his study titled, 'Divisional Performance Evaluation of LIC Business in North Zone' evaluated the performance by using both primary and published information. It was found that the growth of individual business had not been very consistent during the period from 1957 to 1990. The share of individual business remained more than 50per cent in total business. The profitability analysis showed that more than 60per cent of total income was received by way of premium income and the remaining income was earned by investing funds. The average sum assured was the highest in Delhi-1, Karnal,
Delhi –II, Jaipur & Jodhpur. The AAGR & TGR for rural new business was the highest in Srinagar division. Management expenses/ total premium income ratio varied from 17per cent to 27per cent among different divisions. The Udaipur division has the highest ratio indicating low efficiency and Delhi-I has the lowest ratio indicating highest efficiency level. Introduction of computers will certainly affect the efficiency level and improve the quality of services as indicated by a majority of respondents. Training programmes organised by life insurance offices affect the performance positively.

66. Chen and Wong (2004), in their research paper, analysed the solvency of general and life insurance companies in Asia using firm data and macro data separately. It used different classification methods to classify the financial status of both the general and the life insurance companies. The research revealed that except Japan, failures of insurers' in Singapore, Malaysia and Taiwan are non-existent. The paper found that the factors which significantly affect general insurers' financial health in Asian economies are firm size, investment performance, liquidity ratio, surplus growth, combined ratio and operating margin. Similarly, the factors that significantly affect life insurers' financial health are firm size, change in asset mix, investment performance, and change in product mix but the last three factors are more applicable to Japan. The research indicated that the financial health of a Singapore insurer seems to be significantly weakened by the Asian financial crisis as the insurance industry in different Asian economies is at different stages of development. They require different regulatory guidelines.

67. Deloitte and Touche (2004), analysed the profitability and effectiveness of the federal Multi Peril Crop Insurance (MPCI) programme. The study used aggregate historical data on both the MPCI business, and the property and casualty insurance business for the period from 1992 to 2002. The results indicated that the MPCI line of business does not possess risk return advantages relative to the P & C business. The P & C business, as a whole, has had an annual net loss in only 2001 in its history. In contrast, the MPCI business, as a whole, lost money in
three years, i.e. 1988, 1993 and 2002 during the period 1988 to 2002 alone. MPCI
expense ratio were substantially below those found in the P & C business.

68. **Uppal (2004)**, in his research paper examined the comparative trends in
profitability and factors which are affecting the profitability of five major bank
groups in the post-liberalization era. The time period for the study was taken
from 1997 to 2001. Ten factors have been selected which are affecting the
profitability of these bank groups in either direction. Mean, S.D. and co-efficient
of variation have been calculated for each variable and each bank group. For
evaluating empirical estimates, correlation, co-efficient matrix has been
calculated and similarly, R2 has been calculated, which explains the effect of
each variable on group profitability. The results indicated that saving deposits
spread and credit deposit ratio were the major factors which affected the
profitability of SBI and its associate banks in the positive direction. But, on the
other hand, in the burden of the priority sector credit, fixed deposits ratio
adversely affected the group profitability of this group. In the case of old private
sector banks, FDS per cent TDS, in foreign banks, spread per cent WFs; and in the
case of new private sector banks, FD per cent TD is the major factor which
affected the group profitability. The profitability of PSBs was lower as compared
to foreign banks and new private sector banks.

69. **Hoyt and Powell (2006)**, in their research paper, analysed the financial
performance of medical liability insurer by using two appropriate measures,
namely, the economic combined ratio and the return on equity. The period for the
study was from 1996 to 2004. Based on ECR, medical liability insurers, as a
group reported modest profitability in only three years (1996, 1997 and 2004). In
contrast, these insurers sustained losses in six consecutive years from 1998 to
2003. The average profit ratio (return on net premiums earned) during the period
1996 to 2004 was -13.0 per cent. The study found that there was no evidence that
medical liability insurers had been earning excessive returns or that they were
over-capitalized. The research concluded that there was no evidence that medical
malpractice insurance was overpriced.
70. Holzheu (2006), in his research paper, measured the underwriting profitability of insurance markets. The study used economic combined ratio as alternative key performance indicator instead of conventionally published combined ratio. It reflects underwriting profitability more accurately. The study focused on the underwriting profitability of six major non-life markets, the US, the UK, Germany, Japan, France and Canada from 1994 to 2004. The results indicated the picture for the business year results for Japan, Canada, France, Germany and the UK were broadly consistent with the US results. The results for the years 1994 to 1997 and 2002 to 2004 were profitable, though often only moderately. The period from 1998 to 2001 exhibited dismal underwriting results. Substantial improvements in underwriting results from 2001 to 2003 restored profitability to the level of the 1994 to 1997 period. The study further pointed out that the ten year average underwriting margins before taxes were positive in all countries implying a positive contribution to profits from the insurance activities. However, the contribution was only about 1-2per cent in the US and Japan, 2-3per cent in France, 5per cent in Canada and the UK, and 6per cent in Germany. The study found that these positive results were necessary but not a sufficient condition for creating shareholder value. Profits must also cover tax and the insurers' capital cost. During the period 1994 to 2004, it was difficult for the industry to earn its underwriting cost of capital.

71. Kasturi (2006), in his article, focused on the performance management system in the insurance corporation in general based on the principles of performance management in the service organization. The study reveals that success of an insurance company depends on four important functions, such as identification of markets, assessment of risks and estimation of losses, penetration into and exploitation of markets, control over investment and operating costs. Performance of a company in financial terms is normally expressed in net premium earned profitability from underwriting activity, return on investment, return on equity etc. Some of the non-financial performance measures may include growth in number of policies, market share, number of branches, speed in policy processing, speed in delivery of policy notes, timely reminder to
customers, number of dropouts from the policies, growth in products and product lines, customer satisfaction, speed in settlement of claims, employee training, research and development market intelligence and a survey of number of policies per agent, agents training, retention of efficient agents etc.

72. **Kaur and Kapoor (2007)**, in their paper, evaluated the profitability and the relative efficiency of public sector banks (PSBs) in India during post-liberalization period. All the twenty-eight PSBs have been included in the study and the period selected for analysis is 2001-05. To evaluate the overall profits and profitability performance of these banks the credit deposit ratio, return on assets, operating profit to total assets, spread of total assets, interest income to total income and interest expenditure to total expenditure were computed. The mean, standard deviation, co-efficient of variation and exponential growth rate and concentration index were used. The research indicated that the overall profitability of these banks has increased during the period of study. The relative efficiency of nationalised banks is higher than the relative efficiency of State Bank of India and other associates of SBI Group. Among the nationalised banks, Group Corporation Bank, Oriental Bank of Commerce, and Union Bank of India, while in the case of associates of SBI Group State Bank of Patiala and State Bank of Hyderabad performed very well.

73. **Pal and Malik (2007)**, investigated the differences in the financial characteristics of public sector banks, private sector banks and foreign banks in India, based on factors, such as profitability, liquidity, risk and efficiency. To measure the performance of the commercial banks in terms of various financial characteristics embodied in the financial ratio such as return on equity, return on assets, asset utilization, expense ratio, net interest margin, efficiency ratio, earning assets to total loan and business per employee and net NPA. To identify the differences, multinominal regression analysis was used on the sample of 74 Indian commercial banks comprising 27 public sector banks, 24 private sector banks and 23 foreign banks for the period 2000-05. The results suggested that foreign banks had better performance, as compared with the other two categories of banks, in general and
in terms of utilization of resources, in particular during the period chosen for the study.

74. Mahmoud (2008), identified the financial performance of insurance companies in Egypt. The data consisted of six insurance companies, three of which were from the public sector, while others represented private sector companies for the period 1992-93 to 2005-06. The author has used 25 ratios to measure the efficiency and financial performance. These ratios were reduced to six factors through factor analysis. The study found that the mean of efficiency of financial performance, ratios of the public and private sectors do not vary significantly for the following ratio returns on investments, net profit to total assets, net profit to surplus, total liabilities to total assets, and underwriting expenses paid to premiums written. Public sector cases represent 66.7 per cent of the low-efficiency clusters of financial performance, while private sector cases comprise 47.6 per cent of high-efficiency clusters for financial performance. Thus, there is a relationship between the fuzzy classification of the insurance company's financial performance efficiency and its ownership type.

75. Parasuraman et al. (1988), in their paper, described the development of 22-item instrument (called SERVQUAL) for assessing customer perceptions of service quality in service and retailing organisations. The data for initial refinement of the 97-item instrument was gathered from a quota of 200 adult respondents. The results indicated a refined scale (SERVQUAL) with 22 items spread among five dimensions; namely, reliability, responsiveness, assurance and empathy. The last two dimensions (assurance and empathy) contain items representing seven original dimensions - communication, credibility, security, competence, courtesy, understanding and knowing customers, and access. So, SERVQUAL has only five distinct dimensions; they capture facets of all 10 originally conceptualized dimensions. The study concluded that SERVQUAL has a variety of potential applications. It can help a wide range of service and retailing organisations in assessing consumer expectations about and perceptions of service quality. It can also help in pinpointing areas requiring managerial attention and action to improve the service quality.
76. **Carman (1990)**, reported on the replication and testing of the SERVQUAL battery and offered suggestions for its use by retailers. The research revealed that PZB have developed an instrument for measuring quality that they propose as a "basic skeleton" for use "across a broad spectrum of services." The paper concluded that the wordings and the subject of some individual items need to be customized to each service setting. The stability of the SERVQUAL dimensions was impressive but the evidence reported here suggests that the PZB dimensions are not completely generic. Based on the criteria of face validity and factor analysis, the paper recommended that the items on seven or eight of the original ten PZB dimensions (rather than five) be retained until factor analysis shows them not to be unique items on some dimensions that should be expanded if that is necessary for reliability. The paper recommended that the scales should be refined by factor analysis and reliability tests before commercial application.

77. **Parasuraman et al. (1991)**, in their paper, described a multi-sector study in which they refined their original SERVQUAL instruments and re-examined the reliability and validity of this scale. They provided comparative discussion of insights from their study and those from other SERVQUAL replication studies. The results indicated that the reliability co-efficients for the perception minus expectation gap scores for the five SERVQUAL dimensions are consistently high across the various samples, thereby indicating high internal consistency among items within each dimension. The research concluded that the main purpose of SERVQUAL is to serve as a diagnostic methodology for uncovering broad areas of a company's service quality shortfalls and strengths. The use of SERVQUAL can fruitfully be supplemented with additional qualitative or quantitative research to uncover the causes underlying the key problem areas or gaps identified by a SERVQUAL study.

78. **Cronin and Taylor (1992)**, investigated the conceptualization and measurement of service quality and the relationships between service quality, customer satisfaction and purchase intention. The data was collected from 660 persons through a questionnaire by conducting personal interviews in a medium-sized city in the southeastern United States. The results suggested that service quality
should be measured as an attitude. The performance based scale developed (SERVPERF) is more efficient in comparison to the SERVQUAL scale. The study also found that the service quality is an antecedent of consumer satisfaction, where the consumer satisfaction has a significant effect on purchase intentions and service quality has less effect on purchase intentions than does consumer satisfaction.

79. Teas (1993), examined the validity of P-E "gap" framework as currently specified and on the basis of this examination, developed and tested alternative models of consumers" perception of quality. The examination of P-E service quality model indicated a number of problems particularly with respect to the conceptual and operational definitions of the expectations (E) and the revised expectations (E*) components of the model. On the basis of these problems, an evaluated performance (EP) model and a normed quality (NQ) model of perceived quality were developed and along with P-E model empirically tested. The results indicated that the EP model may be more valid than the SERVQUAL, P-E, and the NQ model.

80. Stott (2001), investigated the issues related to achieving service delivery excellence in an active and developing insurance company. In his paper, the author also discussed service quality issues and the emphasis to be placed on alignment of factors to achieve the company goal. It focused on making up a complete service quality master plan. The master plan must include service awareness, measuring customer satisfaction, internal service programmes, business processes, external improvements, service quality control, emphasis on five quality dimensions such as responsiveness, assurance, tangibles, empathy and reliability, service quality culture, aligning people, product and service quality to achieve profitable customer satisfaction. The paper concludes that if a company cannot deliver both quality products and services successfully, it will eventually be overtaken by the competition.

81. Forbes (2000), in his paper, emphasized on delivering excellent customer service in the insurance industry. It has been described that the outstanding customer service although conceptually simple, is difficult to achieve. It takes quite a long
time and requires energy and staying power. It has to be part of the fundamental philosophy of the organization - understood and embraced by everyone. It has to be built into products and processes; and systems have to be set up to deliver it. Above all, the people who make up the organisation need to have the skills, passion and commitment to make it work.

82. Brady et al. (2002), in their research paper, evaluated the two service quality measurement models of the performance only index (SERVPERF) and the gap-based SERVQUAL scale. The study was carried out with the objective to examine the ability of the performance of only measurement approach to capture the variance in the consumers overall perceptions of the service quality across three studies. For the first study, the original Cronin and Taylor data was obtained from 660 persons through personal interviews in a medium-sized city in the southeastern US. The data for second and third studies was collected from service industry, namely, spectator sports, entertainment, healthcare, long distance carriers and fast food. The results of first study indicated that the replication successfully duplicated their finding as to the superiority of the 'performance only' measurement of service quality. The results from the other two studies also lent storing support again for the superiority of the 'performance only' approach 'to the measurement of service quality'.

83. Bhat (2003), analysed the service quality of public sector banks with a view to offer guidelines/suggestions to make overall service quality of banks more effective and efficient. The data has been taken from 400 bank customers regarding the quality of services they were receiving from their respective banks. The research found that the service quality of public sector banks under study was very poor as is clear from the high negative mean scores. The results also indicated that the service quality between two public sector banks did not differ significantly except on tangibility where PNB has taken a lead. The main reason for this empirical evidence was uniform work culture in public sector banks. Apart from uniform culture, public sector banks also have uniform control/direction, uniform services, uniform HRD policies etc.
84. Jain and Gupta (2004), in their research paper, assessed the diagnostic power of the two service quality scales, namely, SERVQUAL and SERVPERF scales. The paper also probed the validity and methodological soundness of these scales in the Indian context, an aspect which has so far remained neglected due to the preoccupation of past studies with service industries in the developed world. The data has been collected from 300 students and lecturers of different colleges and departments of the University of Delhi spread all over the city of Delhi. The study found SERVPERF scale to be providing a more convergent and discriminant valid explanation of the service quality construct. However, the scale was found deficient in its diagnostic power. It is the SERVQUAL scale by virtue of possessing higher diagnostic power to pinpoint areas of managerial interventions in the event of service quality shortfalls.

85. Tripathy (2004), made an endeavour to find out the perception of customers towards insurance companies through marketing variables, and also analyzed the performance of customers and the importance they assigned to different attributes. The author also examined the satisfaction level of respondent customers and agents regarding customer service offered by the company, and tried to determine the position of different companies in the minds of people. The study is based on a questionnaire survey of 225 respondents in Orissa by using multi-dimensional scaling technique. It is observed that 58 per cent of the investors preferred to invest in insurance companies due to choice of products, servicing policy and claims settlement. Majority of the respondents were influenced to take the policy through financial journals and business magazines, and also keeping in mind the high reputation and good CRM of the company. The author suggested that to achieve greater insurance penetration, private companies have to create more vibrant and competitive industry, with greater efficiency, choice of products and value for customers.

86. Banumathy and Subhasini (2004), examined and evaluated the attitude of LIC policyholders towards Life Insurance business, at a branch level in Virudhunagar District. In order to collect opinion of policyholders, a well-structured questionnaire was prepared. The sample comprised of 200 respondents selected
randomly. The study revealed that educational level, income and financial status of the policyholders are the important factors influencing their decision to take the policy. Most of the policyholders get the information about various plans & schemes of LIC only through its agents. Policies are taken up by the policyholders for various purposes, such as future safety, family welfare, children's education, marriage, tax benefits etc. About 10 components have been identified to measure the level of attitude. A five-point attitude scale had been framed. The components analyzed were: premium rate locating of branch, loan procedure, rate of bonus, services of agents, settlement of claims, advertisement, publicity, safety and social security. This measurement of level of attitude clearly revealed that most of the policyholders were satisfied with the services rendered by the LIC and its agents.

87. Rand (2004), examined the suitability of SERVQUAL'S application in the insurance industry to diagnose service quality in the insurance industry of Greece and Kenya. GIQUAL, the SERVQUAL type instrument was developed for the measurement of service quality in the Greek insurance industry. It included 22 items from the SERVQUAL and 3 additional items to evaluate the effect of product quality, ambiguity of insurance contract terms and delays in claim settlement. The 25-item GIQUAL was then applied to three independent samples of 87, 87 and 81 customers of insurers A, B and C respectively in major Greek cities. On the other hand, in Kenya the insurer's questionnaire comprised of 43 statements relating to expectations of excellent insurers only, while the insured's questionnaire had 86 attributes in total - 43 related to expectations of excellent insurers and the other 43 related to perception of respective insurer. The results indicated that the quality gaps that are obtained in the insurance industries of Greece and Kenya are largely the same. In both countries, the customers' expectations were in excess of their perceptions. The dimensions of reliability and empathy were the most deficient and need appropriate actions to improve the quality of their services.

88. Azam (2005), examined the customers' attitudes towards private and public owned general insurance organisations' products exploring 8 salient beliefs,
namely, sound financial strength, goodwill, satisfactory claim settlement, easy risk underwriting, diversified policy, experienced employee, excellent client service and good office environment. The study utilised fishbeins' multi-attribute attitude object model to measure overall attitude. T-test was performed to test the hypothesis. The study indicated that among 8 salient beliefs customers' perceptions on financial strength, goodwill and office environment are statistically different at 0.001 level, while risk underwriting and client service are different at 0.05 level of significance. The results revealed that customers' favourable perception towards financial strength and goodwill of SBC, while office environment, risk underwriting and client services were favourable for private insurance companies.

89. Singh (2006), in his thesis, made a comparative analysis of public and private sector banks, on the basis of business performance, marketing practices and customers' opinion. The study brought out that public sector banks have shown higher growth rate in terms of number of branches, deposits advances, operating expenses, interest expended, spread etc. The private sector banks market their products more aggressively whereas the public sector banks have recently started to recognize the need of marketing and are still in the process of developing efficient organisational structure. Private sector banks have introduced more and more new innovative products to satisfy the needs of customers and used sophisticated technology in their working and delivery of products. The research revealed that satisfaction level of customers is much higher with respect to location of branches, layout of branches, behaviour of staff, time taken in processing their requests etc. in the private sector banks as compared to the public sector banks.

90. Sandhu and Bala (2006), in their research article, reviewed some of the studies that focused on different aspects of life insurance related to customer services, agents' opinion towards life insurance companies, service marketing, growth, functioning, problems and privatization of life insurance sector. The study revealed that the life insurance sector has gained greater importance over the period especially in the post-liberalization era. Many researches have been
carried out in this area, yet none is comprehensive enough to cover the entire service spectrum of different life insurance players in the field. It was emphasized that in the changed scenario, further research is also imperative with regard to various other aspects like the role of information technology, bank assurance and customer relationship management in the life insurance sector.

91. Bodla and Verma (2007), studied the buyer behaviour regarding life insurance policies in the rural areas of Haryana. As many as 188 questionnaires were used for analysis and taken on the basis of convenience sampling. The study found that the respondents belonging to the age group 31-40 years dominate the rural insurance. Market agents are the most important source of information and motivation as the people take a policy that is suggested by an agent. Money-back policy is most preferred in the rural areas followed by Jeevan Anand and Endowment Policy; and the rural people have less faith in private insurers. The results also reveal that the women segment is still untapped in rural areas and the role of advertisements is still not up to the mark in motivating rural people to buy insurance policies.

92. Jampala and Rao (2007), in their study on distribution channels of LIC, concluded that in this era of reforms, a number of intermediaries or distribution channels have emerged. Despite the emergence of new distribution channels such as corporate agents, brokers and referrals, the LIC could not make sufficient business from these channels. In fact, of the total business of LIC in the year 2004-05, the newly emerged distribution channels contributed a meagre 1.12per cent. But private players who got business through these new channels in 2004-05 were 40.70per cent. So, unless the LIC uses the new distribution channels effectively and efficiently, it cannot succeed in the highly competitive insurance business. By taking these measures in their true spirit, LIC can improve its new business further.

93. Banga (2007), in his doctoral work, made an attempt to examine the effectiveness of marketing strategies being adopted by insurance companies, the satisfaction level of the customer, different types of pricing and product management strategies adopted, and various promotional and distribution
channels used by insurance companies for marketing their products. The study revealed that the same product may not be able to give full satisfaction to different categories of customers. Hence, while planning the product the above mentioned factors are required to be considered earnestly. The quality of services provided to their customers by private general insurance companies are better than public sector general insurance companies. It is in this context that the public sector insurance organisations need to think in favour of managing the marketing activities with the help and co-operation of world class professionals. The study also revealed that employees and agents working with insurance companies are not properly trained, resulting in slow business. The present marketing policies of insurance organizations are unable to make the public aware totally, and a drastic change is required in the marketing system. So, it is right to opine that the marketing practices need a new look, an innovative approach and the conceptualization of the holistic concept of management can make it possible.

94. Vanniarajan and Jeyakumaran (2007), in their paper, identified various service quality factors among the insurers and also their impact on the overall attitude towards insurers among the customer in public and private players in life insurance sector. The LIC and private insurance companies have been taken for the study. The questionnaires were got filled from 250 customers of LIC and 20 each from private players. The SERVPERF model was used for the study. It was concluded that the important service quality factors in the life insurance market were distribution network, product, responsiveness, reliability, customer relationship management, empathy, brand building, promotion and tangibles. The significantly influencing service quality factors on the overall attitude towards the insurers were distribution network, product responsiveness, reliability and brand building. It suggested that the insurers have to cover so many customised products with a larger distribution network to survive in the life insurance market.

95. Goswami (2007), in his paper, made an attempt to understand the dimensions of service quality which help ensuring maximum customer satisfaction, and hence, help life insurers to acquire a large share of the market. The study was done on a
systematic sampling design and 250 respondents were asked to respond to the statements in the SERVQUAL scale on a five-point satisfied-dissatisfied scale. The step-wise multiple regressions were run with the scores on tangibility, reliability, responsiveness, assurance and empathy as independent variables, and customer satisfaction as the dependent variable. The results indicated that the responsiveness of service quality provided maximum customer satisfaction in the life insurance industry in India. The study suggested the insurers to improve customer relationship. Proper CRM implementation would not only ensure increased customer satisfaction but also help in acquiring new customers, at the same time retaining the old customers.

96. Raj Kumari (2007), in her study, identified the customers’ attitude towards purchase of insurance products and also their knowledge on the bancassurance formats available through banks. The study concluded that insurance awareness is growing rapidly among the people though many of them are still hesitant to insure due to certain barriers. The people go for insurance only to avoid income tax and have future savings. „Bancassurance“, the new term in insurance distribution, has not been penetrated as most of the people are not aware about this concept. The people understanding bancassurance did not have an idea on Centurion Bank providing this facility. The results also indicated that there is very less relation of the bancassurance clients with Centurion Bank accounts like savings, loans etc.

97. Devasenathipathi et al. (2007), compared and rated all the life insurance companies, measured the customer perception, purchase behaviour, consumer awareness regarding life insurance industry and also studied the privatization, policy awareness and life coverage awareness among the consumers. The data has been collected through a questionnaire filled from 500 customers residing in Chennai. The study concluded that the entry of private players brought better service, quicker settlement, greater awareness and more choice. The purchasing behaviour of the consumer depends on quality, accessibility and promptness of services, which may lead a company acquire the top rank with a huge market share.
98. **Chawla and Singh (2008)**, in their paper, investigated the service quality factors affecting customer satisfaction levels of the policyholders. The data was collected from 210 policyholders belonging to northern India through a questionnaire. Factor Analysis and reliability analysis were carried out to test the data. The results revealed that the accessibility factor has a higher mean satisfaction as compared to mean satisfaction of reliability and assurance factor. The comparison of overall mean satisfaction based on various factors expected showed that respondents who had purchased insurance policies before privatization had a higher mean score as compared to respondents who took insurance policies after privatization.

99. **Khurana (2008)**, conducted a survey to identify customers’ preferences regarding plans and their purpose of buying insurance policies, their satisfaction level and their future plans for the new insurance policy. The data was collected through a questionnaire filled from 200 customers of Hisar city on the basis of convenience sampling method. The results revealed that the customers still prefer public sector companies to the private sector ones. The main purpose of buying an insurance policy is protection. The survey showed that only 6.3 per cent of the respondents having policies of LIC faced some problems. As high as 56.3 per cent respondents were ready to buy new insurance plans from the same company.

100. **Kamble et al. (2009)**, in their study, analysed the perceptions of customers toward e-service quality dimensions. They also evaluated how well these dimensions were being perceived by the customers so as to provide an objective measure of service performance. The first phase of the study identified 10 important dimensions of online service quality, viz. reliability, responsiveness, competence, ease of use, product portfolio, security, website features and access, credibility, completeness of information and sensation. The results indicated that the extent to which current online retailers provided online service attributes were analyzed to be low or moderate on most of the dimensions for both the e-travel and e-mart service providers. The model tested for the relationship between the service quality dimensions and customer satisfaction was found to be conciliated at a low level.
Singla and Singh (2008), in their paper, investigated the perceptions of customers in hotels of a mid-sized metropolitan city by employing a modified SERVQUAL approach. The study identified seven factors consisting of 33 variables that an average hotel customer often uses to assess hotel services. The results of the study indicated that tangibility, reliability and responsiveness were the dominant factors while formulating perceptions about the service quality of hotels. The study found that the conceptualization of service quality carried out in this study enables managers to devote resources to improving either service quality collectively or specific aspects of the service act.

Arora (2008), in her doctoral work, conducted a study on the consumers' perceptions towards the service quality, explored the key dimensions of service quality, and compared the quality of the advisory services offered by the individual life insurance agents and the bank employees selling life insurance products. The data was collected from 750 customers through a questionnaire distributed to them personally. The questionnaire included 22 items from the original five dimensions of the SERVQUAL instrument and 19 additional items were added to the SERVQUAL scale. Seven dimensions were used to conceptualize service quality. The study provided the additional insights about the possibility of having multiple dimensions of the quality with the presence of additional dimensions, such as product availability and product convenience. The results showed that responsiveness had the strongest correlation, and is the best predictor of the overall quality in the model with highest B value followed by assurance and empathy. The research also revealed that the agents have better success rate than the bank employees in selling life insurance products.

Arora (1987), in his doctoral research work, analyzed the investment and personnel management of LIC. The research revealed that the total investment of LIC has increased at a faster rate than the increase in total fund, total assets and controlled fund. It is a very good sign, because a large portion of the amount is being utilized for earning income and a small portion of the amount is left idle. The percentage of investment in government securities to total investment has been declining. It has no reverse impact on the interest of the policyholder. The
LIC arranged investment in such a way that it got a constant inflow of funds. The study observed that the LIC has no systematic planning to foresee the needs of its employees. The study suggested that the personnel department of LIC should be equipped with specialized and qualified personnel to manage its functioning properly.

104. **Arora (1988)**, in her doctoral work, studied quantitative analysis of the investment policy of GIC and examined critically the role played by the GIC in providing finance to industry. The study revealed that the Investment Policy of GIC evolved within the ambit of the provisions of the Insurance Act 1938, and the guidelines issued by the government from time to time, with a view to maximizing investment income, ensuring safety, liquidity of funds and be consistent with national objectives and priorities under the guidelines. It also invested in corporate securities and participated in underwriting of new issues. The promotional role played by the GIC over the years has been considerable. It has taken keen interest in the area of rural insurance, foreign business development and development of human resource.

105. **Negi and Sarkar (1995)**, in their paper, analyzed and critically examined the portfolio management policy of LIC with respect to its investment in Govt. of India's securities. The study revealed that up to 1987, the LIC had increased its investment under the Govt. Of India securities with the increase of its total controlled fund. But after 1987, its investments under the two heads did not increase with the increase in total controlled funds. After 1987, the corporation decided to take more risk in order to earn higher return. It decided to be little aggressive for their portfolio management and tilted towards investment in securities and financial instrument where higher returns were possible, keeping in view the satisfaction of customers. It was important for the corporation to earn higher profit so that bonus might be declared at a higher rate.

106. **Gupta (2003)**, in his paper, highlighted the need of branding in insurance, because the changing scenario is forcing the players to differentiate themselves from others; hence, they are now examining the possibility of branding their product and services to fuel growth. The study revealed that settlement of claims
is the most important factor in the mind of customers followed by quality services and security of investments. The other expectations included nine other types desired by the customer. It, therefore, logically follows that the expectations of the customers, especially the claim factor, should be strategically incorporated in the brand strategies of the insurance players.

107. **Jampala and Rao (2005)**, in their study on corporate social responsibility of LIC, analyzed the data related to LIC’s contribution towards its employees, agents, government, policyholders, assistance to development activities, social security schemes, social investment and lives covered from 1999-00 to 2003-04, and concluded that C.S.R. is one of the prime focus area of LIC. However, it did not have a proper feedback system to gauge the impact of its contribution to social development.

108. **Rao (2005)**, in his research paper titled, “LIC Agents : Are They All Productive”, found that during 2003-04 the business procured through Agents constitutes 99.78 per cent, while through all other sources is 0.22 per cent only, which shows the basic strength of LIC is its huge agency force. The data from 1996-97 to 2003-04 shows that the number of agents and average business per agent is increasing year by year. But it does not mean that all agents are productive. The analysis revealed that 15 per cent of LIC agents are highly productive, and the remaining 85 per cent are not so productive. In a nutshell, 15 per cent of the agents bring 61 per cent of the new business. In view of this, LIC would have to undertake training & development programmes for its non-performing agents to make them good performers.

109. **Mandal (2006)**, in his study, observed that in India, insurance is an advisor dominated business where 90.5 per cent of the business is conducted via advisors' retail distribution. The study was carried out with the following objectives:

- To study the advisors' profile.
- To study how advisors' profile influence business performance.
- To know the most preferred advisors' profile.

The data was collected through a questionnaire, and partially through interview. The research showed that majority of respondents think that insurance industries
are growing very fast where retail distribution is the main channel. Distributors and advisors are the most important channel members. Success rate depends on the advisors’ selection and the best prioritization of specification, whereas age is the first and community is the last priority. The research also revealed that a married person between the age of 31-45 years having earnings between Rs. 5000 to Rs.10000 P.M., academic qualification 12th or graduation, self-employed, staying in the same place for at least two years is more successful.

110. Rao and Parkash (2006), in their study titled, “Investment Portfolio Performance of the LIC” observed that the LIC while investing its funds, has to consider various factors and forces such as safety, liquidity and productivity of funds plus various other regulatory bindings in terms of investment norms, asset liability management etc. In the year 2004-05, LIC had total funds to the tune of Rs. 416910.36 crore and a total investment of Rs. 413800.95 crore. In India 86.14 per cent of the investment is made in stock exchange securities. The study concluded that LIC should constantly monitor the business environment and accordingly change its investment portfolio, so as to enhance its investment performance.

111. Sekar (2006), in his article, examined that insurance companies in the absence of a holistic measurement system, and the evaluation procedures would lack a balanced structure giving a balanced outlook of different facts of business performance. The drawback is overcome by employing a balanced score card system. It is one of the powerful tools of stakeholder management, enabling an insurance company to develop, grow and sustain competitive advantage. It provides the necessary means for evaluating the effectiveness of different strategies at different levels of business. The balanced score card does a performance measurement in insurance industry in four contexts, namely, financial, customer, internal business process, and learning and growth. The financial component is focused more on shareholders’ value. The different variables present in the sequence of achieving shareholder value are; cost efficiency, investment returns, capital efficiency, underwriting profitability and premium growth. The customer perspective consists of core measures like market
share, customer acquisition, customer profitability, customer retention, customer satisfaction etc. It takes care of bringing customer value by carrying on the following stages: brand reputation, quality of relationship, quality of services, terms and conditions and the market share. The stage of measuring and evaluation of internal process consists of business process, underwriting process, innovation capability, and client relationship management process. The learning and growth perspective has the following stages: claims management skills, financial skills, marketing skills, and underwriting skills.

112. **Vembu and Uthara (2006)**, in their article titled, “CRM : An Essential Yardstick for Success in Insurance” observed that the Indian CRM market can be sized at Rs.50-100 crore. The study claimed that 18per cent of Indian firms were either unaware or unconvinced of CRM. The service sectors like banking & insurance are the best fit to CRM. Many insurance companies started to review CRM as a tool to deliver high service quality. LIC Aviva, ICICI Prudential Life, HDFC, and Standard Life Insurance companies have already deployed CRM. Players such as Birla Sun life, Met life etc. are expected to adopt CRM in near future. The study concluded that to survive in the competitive market insurance companies need to implement CRM, not only technically but also as a part of culture. The successful CRM results in the ability to measure customer value and improve services.

113. **Sharma and Kalyani (2006)**, conducted a study titled, “CRM. in LIC : Some Reflections.” For the purpose of study Warangal division was selected, since its performance in offering services to the customer was remarkable in the past few years. It was based on secondary data obtained from the records of divisional office of Warangal. The results showed that the LIC adopted the CRM philosophy at all levels and initiated necessary measures for providing better services to policyholders. Computerization and networking of operating units was also taken up for better access. New methods like single window and customer service centres had received wide recognition and acceptance among users.

114. **Banerjee and Parhi (2007)**, revealed that competition was yet to reach the pricing arena in health insurance. The oligopoly nature of market has turned to
restrict the free play of market forces through product differentials. Post-detariffing, the upcoming probable price war in other fields of insurance, may create a momentum in this section. In future, health insurance premium goes up by another 40 per cent to factor the increased claim ratio of 130 per cent in health insurance, which obviously is unacceptable.

115. Sabera (2007), in his paper, highlighted that growing insurance industry has recorded a growth of 16 per cent in the financial year 2005-06. Innovative products, better marketing and aggressive distribution have enabled fledgling private companies to sign up Indian customer faster than expected. The private players are mainly concentrating on customer service. For this, they are looking at delivery channels like call centres, internet, telemarketing and direct marketing. The public sector companies are also identifying new ways to satisfy the needs and will be competing with private players in the near future. There will be a large scope for growth and the industry will become highly competitive.

116. Rao (2007), in his article, discussed how the industry performed since liberalization,

why the mindset of insurance continued to be premium obsessed, as in the past, and why it was very necessary for them to switch their focus to measuring performance on a different basis for their survival in the market place, that is getting hotter and hotter at a competitive level. And why it was even more important to the public sector insurers to get their act together, as not doing so, might hurt them more as continued solvent insurers. The study revealed that non-life insurance industry performed superbly in FY 2006-07 in terms of rising premium volumes, recording its highest growth rate ever of 23 per cent, with an accretion of Rs. 4626 crore. The premium volume crossed Rs. 25003 crore. The growth rate during FY 2005-06 was 16 per cent & during 2004-05 was 12 per cent. The private players whose premium share in FY 2000-01 was Rs. 500 crore had taken it to Rs. 8700 crore, with their market share up from 4 per cent to 35 per cent. It was observed that measuring performance only by monthly premium has lowered the morale of staff. Even after the market was liberalized, this situation has not changed much.
117. **Capgemine and EFMA (2007)**, in their quantitative and qualitative research, revealed key themes on which today's insurance is focused. The key issues studied were increasing the emphasis on customer centricity, enabling the distribution network with improved sales & service tools, implementing integrated multi-channel strategies, replacing legacy technology with more flexible systems and improving operational efficiency. The research showed insurers must re-value how they handle customer interactions, align their offering with customer purchasing criteria, hone channel mix and better understand, and act on the drivers of customer satisfaction, loyalty and defection. At the same time, they can optimize the distributor strategy by proactively seeking to retain and attract quality distributors, enable distributors to function more effectively, integrate distributors more deeply into the enterprise, and build an enterprise view of the customer. To integrate systems and enable them free from information throughout the insurance enterprise, insurers need to upgrade or replace policy administration systems. Insurers should also explore alternative methods to reduce costs and improve operational efficiency.

118. **Jha and Agarwala (2007)**, in their article, studied the impact and challenges of detarriffing in insurance industry. The paper revealed that detarrifing creates intense competition, sharp drop in premium, reduction of premium more evident in corporate portfolios, and non-reasonable basis for reduction in premium. In the case of retail/small portfolios, the premium cut was less due to ignorance about detarrifing of insurance market, premium reduced irrespective of the quality of risk management, direct impact on the balance-sheet of insurers and review in reinsurance rates by several leading re-insurers etc. They found that the only way out available with the insurance companies will be to vigorously market the policies, create new customer base, spread the net of insurance, not to compromise with quality of risk insured, proper appraisal of risks and motivate the insured to practice risk management.

119. **Sethu (2007)**, in his paper, showed the effect of privatization and globalization on non-life insurance segments. He observed that the current trend in the insurance sector speaks volumes of the unethical practice of insurance and non-
maintenance of the principles of insurance prevalent prior to the privatization of insurance in India. The basic principles of insurance are to serve the public for their security without detriment to them. It not only should aim at spreading of insurance all over the country but also promote social security keeping in view the principles of equity and natural justice, in the interests of all the insuring public. In the initial stage of privatization, the private companies were concentrating more on the creamy business and were indulging in unethical practices to grab the business by hook or crook. The PSU (Non-Life) insurers, on the other hand, having the massive strength of manpower, are unable to match with the private players who have minimum staff strength and a huge technology at their disposal. So PSU insurers are keen to reduce the staff strength by more than 50 per cent to compete with the private players.

120. Parekh (2007), explained that the face of insurance in India has changed so radically that you cannot recognize it from the past. The changes which have been witnessed in the last seven years are: product innovation, unbundling of features and becoming more customer-responsive. Detarriffing, that is being driven by the regulator has presented another huge opportunity to the non-life sector. The insurance industry has been huge contributor to the creation of both direct and indirect employment opportunities.

121. Rao (2007), in his article said that the credit for the enlargement of the insurance market penetration and density should legitimately go to the private sector and rightful regulation. The increased economic activity coupled with recent reforms in general insurance market would certainly help to expand the market in the years to come. The opening up has augured well for the consumers, who now have access to wide range of new products particularly unit linked products that have attracted the attention of the insured.

122. Ramana (2007), in his article, observed that in the light of duties and obligations cast on the regulator in respect of protection of policyholders' interest, growth and development of insurance business in India. What has been done and achieved till now is only a sound beginning. Much remains to be done to become true to the ideas with which the regulatory body has been conceived and
constituted, particularly in the context of economic reforms initiated in our country. With increasing complexity and novelty of business opportunities thrown open to more and more players in the insurance market, the regulatory body too needs to gear up its administrative and regulatory machinery to have in place a more structured, systematic and effective approach to successfully find solutions to more and more challenges and issues in the days to come, as the market is destined to experience extreme aggressive stances both from the existing players and also the new entrants queuing up and knocking the doors of IRDA for the green signal and operational permit.

123. Seal and Debnath (2007), observed that detariffing in the insurance segment has been to the advantage of the consumers. The rates of premium in fire and engineering have decreased. Even though the premiums, for a segment of motor insurance increased, despite charging such increased rates of premium, insurance companies will be at loss in the area of motor insurance. Competition will bring more and more new and better products at some discount. Finally, consumers will be the beneficiaries of detariffing.

The survey indicates that though a large number of studies have been conducted on non-life insurance sector at the international level, but at the national level researchers have mainly emphasized on life insurance sector. Although a few studies have been conducted on the performance of the general insurance sector prior to reforms, but no worthwhile research relating to the measurement of the overall performance of the general insurance companies in the post-reform period has been conducted, making a comparative study of the public and private sector general insurance companies. No proper study has been conducted to assess the impact of reforms on profitability and efficiency of the public sector general insurance companies and the comparative service quality level offered by the public and private sector general insurance companies. Thus, there exists a research gap and this study titled, “Performance Evaluation of General Insurance Companies - A Study of Post-Reform Period” is an attempt to fill this gap.


126. Title :-“A study of liquidity management in Fertilizer Industry of Gujarat state.”

Researcher :- sunil s. patel
Year :- 2000
Degree :- Master Of Philosophy in commerce
University :- S.P University
Objective :- The main objective at the study.

- To understand liquidity condition of the fertilizer industry in Gujarat state
- To evaluate the liquidity analysis with financial statements
- To study profitability position of fertilizer industry in Gujarat state

Universe :- Fertilizer industry
Sampling :- G.N.F.C and G.S.F.C
Research Method :- Ratio analysis and F-test t-test used.

Conclusion :-
- The current ratio is much higher in G.N.F.C as compare to G.S.F.C. It sow assets is higher and liabilities is lower in G.N.F.C . So G.S.F.C has need to reduce current liabilities and growth up to current assets.
- The companies should try to reduce personnel expenses by reducing this expenses companies can transfer more amounts to retained business in G.S.F.C
- The debtor turnover ratio is much higher in G.S.F.C as compared to G.N.F.C during the study period. It show the liberal credit policy. Hence G.S.F.C must reduce the period credit given to its debtors.

4.4 SCOPE OF THE STUDY:-

The scope of this research study is as under.

FUNCTIONAL SCOPE
Functional scope of this study is to analyze Background/ History, Various General Insurance Services, Financial Performance, Social Performance, Scope/ Future and Barriers, Contribution and role of selected General Insurance companies in India.

**GEOGRAPHICAL SCOPE**
In this study researcher selected 8 General Insurance services Providing Company which are working and providing General Insurance Services in India. So, whole India is geographical criteria for this research study.

4.5 **NATURE OF THE STUDY:-**

As one of the objective is to acquire deeper insight into the various pertinent aspects of the problem, thus the study can be termed as exploratory in nature. The researcher has also utilized the facts and information available in various sources to make critical evaluation and thus from this points of view, the nature of the study becomes analytical.

4.6 **OBJECTIVE OF THE STUDY:-**

Objective is a base for any work. The objectives determine the future and outcome of the research. No one work is started without any objectives. The principal and Main objectives of the study will be as under:

1. To make comparative study of Financial Statement analysis of selected General insurance companies.

2. Investors will know the Financial Statement Analysis of selected General Insurance companies.

3. To examine Revenue statement Ratios, Balance sheet Ratios and Composite Ratios of selected General insurance companies.

4. To examine Liquidity Ratios, Leverage Ratios and Activity Or Efficiency Ratios of selected General insurance companies.

5. To evaluate the financial Statement analysis with the help of financial statements of selected General insurance companies.

4.7 **HYPOTHESIS OF THE STUDY:-**

The Main hypothesis of the study will be as under
1. $H_0$ : There would be no significant difference between Ratio Analysis of selected General Insurance Companies in India.

2. $H_1$ : There would be a significant difference between Ratio Analysis of selected General Insurance Companies in India.

3. $H_0$ : There would be no significant difference between Trend Analysis of selected General Insurance Companies in India.

4. $H_1$ : There would be a significant difference between Trend Analysis Of Selected General Insurance Companies in India.

5. $H_0$ : There would be no significant difference between common size Statement Analysis of selected General Insurance Companies in India.

6. $H_1$ : There would be a significant difference between common size statement Analysis of selected General Insurance Companies in India.

7. $H_0$ : There would be no significant difference between Leverage Analysis of selected General Insurance Companies in India.

8. $H_1$ : There would be a significant difference between Leverage Analysis of selected General Insurance Companies in India.

### 4.8 RESEARCH DESIGN:

According to K.R.sharma:-

“Research Design is the arrangement of the conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure “

Architects ‘Design’ a plan before constructing a building baring well in mind the purpose for which the building is to be used. The architect takes decisions such as, how long the building will be, how many rooms it will have, how these rooms does all this before the actual construction begins. The proceeds in this manner because he wants to get a picture which helps him to visualize clearly the difficulties and inconveniences that would face in future.

The research design is also same process. Well structured research design protect researcher against difficulties and inconveniences. In other words,
decisions regarding what, where, when, how much, by what means concerning an inquiry or a research study constitute a research design.

4.9 SAMPLE DESIGN

In this research study, researcher has selected 10 General insurance services Provider Company in India by using Stratify Sampling Method, Followings are:

1. Bajaj Allianz General Insurance company
2. Cholamandalam MS General Insurance company
3. Hdfcergogeneralinsurance company
4. Nationalgeneralinsurance company
5. Orientalgeneralinsurance company
6. Reliancegeneralinsurance company
7. Royalsundaraminsurance company
8. Tataaiggeneralinsurance company
9. The newindiaassurance company
10. The Unitedindiainsurance company

4.10 DATA COLLECTION:-

The data collection is very important task for the researcher for the research study. This research study is mainly based on secondary data. The secondary data shall be collected from the records, documents, related subject matter and related websites. Besides, the researcher shall collect and analyze published data as per the requirement.

As such the universe of this research study is restricted with the reference to selected General insurance Services Provider Companies, which are working in India. So, researcher has selected 10 General insurance Services Provider Companies. The data regarding selected General insurance Services Provider Companies have been obtained and collected from the annual report of the consult Companies and related websites.
4.11 RESEARCH METHODOLOGY:-

It is empirical study, so researcher has followed scientific approach to design the research methodology for investigation. For this study researcher has used secondary data as source of information for thus research e.g. the Annual Reports, Websites and other Publications. The following tool & techniques have been classified in the study

A. Commerce & Accounting Techniques
B. Statistical Techniques

A. Commerce & Accounting Techniques

The researcher picks up the techniques to suit their requirement and also basis to data available to them. The accounting techniques which are used for the analysis is as under:

Ratio Analysis

A ratio is a quotient of two numbers and the relation expressed between two figures. Analysis is a process of comparison of one figure to another, which makes ratio. Ratio analysis is a very powerful analysis tool used for the measuring performance of an organization. The ratio analysis concentrates on the interrelationship among the figures appearing in the financial statement. The appraisal of the ratio will make proper analysis about the strengths and weakness of the firm’s operations.

Trend analysis:

Trend analysis was known and most widely used tool at financial statement analysis.

Common Size Statement analysis:

Common Size Statement analysis was known and most widely used tool at financial statement analysis.

Leverage Analysis

A lever is a force in a car or in any machine which helps in doing more work with lesser labor. In financial management leverage analysis means arranging fixed assets in such a way that fixed return is ensured.
B. STATISTICAL TECHNIQUES:-

The main base of this study is to analyze the Financial Performance of Selected General insurance units of India. Verifying and testing this hypothesis, some techniques have been used. Here, mainly applied test or techniques are as under.

1. Average/Mean

The most commonly used average is the arithmetic mean, briefly referred to as the mean. The mean can be found by adding all the variables and dividing it by the total number of the years taken. It gives a brief picture of a large group which is represents and gives a basic of comparison with other groups.

2. The Standard Deviation

The Standard deviation concept was introduced by Karl Pearson in 1823. It is by far the most important and widely used measure of studying dispersion. Standard deviation is also known as root mean square deviation for the reason that it is the square root of the mean of the square deviation from arithmetic mean.

3. T-test

T-test is based on T-Distribution and is considering an appropriate test for judging the significance of a sample mean. It can also be used for judging the significance of the Co-efficient of simple and partial Co-relations. The relevant test statistical is calculated from the sample data and then compared with its problem value based on T-distribution at a specified level of significance for concerning degree of freedom for accepting or rejecting the Null Hypothesis.

4. F-test

Used at statistical techniques has become a normal in any type at analysis. Statistical analysis at tools which used for financial analysis. The researcher will pick up the techniques of ANOVA at specific level at significance for accepting as rejecting the null hypothesis the testing hypothesis selecting the various financial analysis at the under study.

4.12 PERIOD OF THE STUDY :-

This research study covered the data of last 10 years of the functioning of the selected General Insurance companies. A longer period could have been still better but due to time and resource constraints, the last Ten years not very short
period has been taken for analyzing the data of research program. The study period is 10 years, starting from year 2004-05 to 2013-2014.

4.13 SIGNIFICANCE OF THE STUDY :-
Significance of this study is as under.

**Contribution to the knowledge**
1. Through this research study the knowledge of researcher particularly regarding statistical tools and technique and statistical test will improve.
2. The knowledge regarding Overall Performance and profitability will be improved.

**Contribution to the Society**
1. Through this research study society will able to know the real situation of Financial Performance and Profitability of the General insurance Sector.
2. Society will be able to know what is the trend of social responsibility among the General insurance company.

**Contribution to the Industry**
1. General insurance industry may be able to know the financial efficiency with the help of appropriate financial ratio.
2. General insurance industry will try to improve their financial performance.

**Contribution for the government**
1. Through this research study government will able to know the real situation of Financial Performance and Profitability of the General insurance Sector.
2. Government will be able to know what is the trend of Development, present performance and impotence of the General insurance company.
3. This study also help full for making future General insurance policy and evaluate present General insurance rules and regulation of government.

4.14 LIMITATIONS OF THE STUDY

Each study cannot be free from limitations. Some limitations likewise, the limitation of time, areas, economic, efforts, scope as well as the method of the study. Some limitations for present research work are as under.

1. Scope of this study is wider but sample size is limited to only 10 General insurance units are covered in this study.
2. This research study based on secondary data collected from annual reports of various telecom units and related websites. The limitation of the secondary data and its findings depend entirely on the accuracy of such data.
3. The data, which is used for his study is based on annual report of the telecom units and secondary data collected from published reports from time to time.
Therefore the quality of this research depends on quality and reliability of data published in annual reports.

4. Results of this research are confined and limited to the selected General insurance companies

5. The study is limited to Ten years (2004-05 to 2013-14) only.

4.15 FUTURE SCOPE OF STUDY

Keeping in view the limitation of the study and the experience gain by the research during the course of his research work, the researcher perceives that a full- fledged conclusive research work at macro level may be undertaken. For the type of macro level study, it may be helpful in identifying distinctive conclusions separately.

Similarly , the study can be made for different sub groups of the units in terms of bank, chemical, software, engineering, cement, communications, Transports, oil, pharmaceutical etc.

4.16 CHAPTER PLAN:-

The present research study will be divided into Six chapters.

Chapter :-1 A Conceptual framework of financial statements analysis

Chapter :-2 An overview of General Insurance Industries

Chapter :-3 A Bird’s View Eye:- Selected General Insurance Companies

Chapter :-4 Research methodology

Chapter :-5 Analysis & Interpretation of data

Chapter :-6 Findings, conclusions & suggestions

4.17 REFERENCES

Thesis


**For research purpose**

1. C.R.Kothari
   “Research Methodology”,

2. Gupta S.C.,
   “Fundamentals of statistics”,

**For Accounting purpose**

1  *Principles of Management Accounting* by Man Mohan and S.N. Goyal.
(Arya Sahitya Bhawan)
2 Accounting for Management Control - An Introduction by C.T. Horngren. (Prentice Hall)

3 Management Accounting in Practice - De Paule. (Pitman, London)

4 Management Accounting by Maheswari and Maheswari.

5 Cost and Management Accounting - P.V. Rathnam

6 Practice of Management Accounting by K.S. Sastry

7 Management Accounting by B. Murao.

8 Essence of Management Accounting by L. Chadwick.

9 Introduction to Management Accounting by C.T. Horngren.

10 Advance Management Accounting by R.S. Kaplan.

**JOURNALS & PERIODICALS**

A Cyber Media group journal: New Delhi.

Anvesak, Published by Sardar Patel Institute of Economics & Social Research, A‘bad

ASCI Journal of Management, Published by Administrative Staff College of India Hyderabad

Asian Economics Review, Published by The Indian Institute of Economics, Hyderabad

Chartered Accountant, Published by Institute of Chartered Accountants of India, Delhi

Chartered Secretary, Published by the Institute of Company Secretaries of India, Delhi

Chartered Financial Analyst, Published by The Institute of Chartered Financial Analysts of India, Hyderabad

Economics & Political Journal, Published by Sameeksha Trust, Mumbai.

Finance India, Published by Indian Institute of Finance, Delhi


Segments a Threat to PSU (Non-life) Insurance, Whether Non-life Insurance Can
Sinha, R.P. (2006), "Operating Efficiency of Life Insurance Companies: A Data
4, October, pp. 29-37.
33-43.
Sinha, R.P. (2009), "Technical Efficiency of Indian General Insurance
Companies: A Non-radial Approach", The ICFAI Journal of Risk and Insurance,
Vol.VI, No. 1, pp. 16-29.
Singla, V. and Singh, A.I. (2008), "Conceptualization, Perceived Service Quality
June, pp.16-23.
Tripathy, N.P. (2004), "An Application of Multi-dimensional Scaling Model
towards Brand Positioning of Insurance Industry", Insurance Chronicle, October,
Groups in the Post-liberalization and Globalization Era", Indian Management
Satisfaction in Life Insurance Market", Pravartak, Vol.11, Issue 3, April-June,
pp.159-170.


**WEBSITES**

1. www.irda.com
2. www.gic.com