CHAPTER VII
CONCLUSIONS

The current reforms in Indian insurance sector have facilitated many functional changes over the past decade. This study aims to provide an assessment of deregulation with respect to industry scenario, concentration, efficiency, productivity and innovation in the Indian life insurance industry. A summary of the main points of the analysis is presented here along with suggestions for future research.

7.1 Summary of the Study

The first chapter of introduction gives a general background for the study. It discusses theories, factors and circumstances that caused liberalization of the insurance industry. The concepts of liberalization and deregulation, purpose, methodology importance, limitations etc of the thesis are discussed here. The entry of private players in insurance was needful and justifiable in order to enhance the efficiency, density and penetration of insurance in the country and also for a greater mobilization of savings needed for long gestation infrastructure projects. So this thesis purposes to evaluate the impact of reforms in terms of growth and development and other functional changes in the sector. It also tries to find out how the reforms have benefited Indian life insurance industry. An overview of present market scenario is compared to that of pre liberalization market. The changes in market structure are examined in terms of market concentration. The efficiency as well as productivity of each of the insurers is calculated and analyzed improvement therein over the years. Other changes in terms of product range, service benchmark, technology innovations, and marketing strategies are also examined. The different approaches of measurement are applied depending on the available data.

The second chapter gives an overview of Indian life insurance Industry. Insurance sector of India is almost 193 years old since its first insurance company, the Oriental Life Insurance Company was started in 1818. It is now in the third phase of its existence. The first phase was before the nationalization of life insurance in 1956. At that point of time, there were more than 200 private life insurers including Indian Insurers, provident societies and non Indian insurers. In the second phase, the whole life insurance industry came under state monopoly as Life Insurance Corporation of India. During the monopoly regime of LIC of India, the number of policies, sum assured, and the annual premium received were seen increasing over the years. However, the insurance sector was liberalized in 2000 for various reason such as lack in depth, diversity and reach(geographically as well as in terms of insurable population), poor customer service and need for global dimension etc. In the third phase of liberalized regime, the insurance sector was seen to have many new entrants and made a robust growth in terms of huge volume of business underwritten by the companies and overall growth of the market. In addition, India is poised to experience major changes in its insurance markets as insurers operate in an increasingly deregulated and liberalized environment.

The third chapter of the thesis is fully devoted to the review of literature, covering some of the important studies on the topic of the research. Liberalization, deregulation, privatization and globalization of insurance sector have been the major trend worldwide in the last two decades. Outcomes of the study on deregulation and liberalization differ from analysis to analysis. On an average, the studies reviewed shows that liberalization has positive impact on efficiency and productivity growth varying from country to country and the degree of liberalization. In the Indian context, a few studies have been made on the Indian insurance sector in the wake of liberalization. All these studies relating to Indian industry covered varying aspects such as emerging strategic and regulatory issues in light of liberalization, appraisal of industry development, structure, innovation etc. However Indian insurance is at the starting point of a long journey of liberalization and so more literature on this aspect is desirable and needed. Therefore, this study will strengthen the existing literature and help to understand the emerging market dynamics.

The fourth chapter entitled "Concentration" deals with the post liberalized market structure of Indian life insurance industry in terms of Concentration, penetration and density and the spread of insurance in rural areas. The change in structure of life insurance with the coming of private insurers and the intensity of changes is analyzed with CR1 (market share of largest insurer), CR4 (market share of 4 largest insurer), Herfindahl Hirschman index (HHI) as well as Entropy (E). Using 9 years data from 2001-02 to 2009-10, these indices are calculated taking market shares in terms of a) total premium b) equity share capital and c) total assets respectively for each year. In terms of total premium, with an HHI-index of 0.50 and entropy of 0.25 in 2009-10 and a CR4 of 84%, the concentration of the life insurance market can be qualified as very high. However, the degree of concentration was decreased substantially from HHI of 0.99 and entropy of 0.95 and CR4 of 99% in 2001-02. For the private insurers, the HHI and entropy are 0.11 and 0.08 in 2009-10.

In terms of equity share capital, with an HHI-index of 0.06 and entropy of 0.05 in 2009-10 and a CR4 of 36%, the concentration of the life insurance market can be considered as very low. Also, the degree of concentration has decreased slightly from HHI of 0.09 and entropy of 0.09 and CR4 of 47% in 2001-02. For the private insurers, the HHI and entropy were 0.6 and 0.05 in 2009-10 which means the degree of concentration is very low.

In terms of total assets, with an HHI-index of 0.69 and entropy of 0.43 in 2009-10 and a CR4 of 92%, the concentration of the life insurance market can be termed as very high. However, the degree of concentration was decreased substantially from HHI of 0.99 and entropy of 0.97 and CR4 of 99.9% in 2001-02. For the private insurers, the HHI and entropy were 0.12 and 0.09 in 2009-10. To sum up, the concentration was declining in all the three variables viz. premium, equity share capital and total assets. But the market shows high concentration even now on indicators of total premium and total assets. The detail is provided in table 7.1.

Table 7.1: Summary of CR4 (%) in terms of total premium, equity share capital and total assets

Years	2002	2003	2004	2005	2006	2007	2008	2009	2010
Number of firms	12	13	13	14	15	16	18	22	23
Premium	99.84	99.27	98.06	95.83	94.21	92.22	88.75	85.88	84.44
Equity share capital	47.51	48.47	48.30	48.04	48.41	44.36	41.42	38.57	36.86
Total assets	99.55	99.5	99.34	98.71	97.97	96.8	95.23	94.02	92.12

Though the life insurance penetration and density has increased over the years from 1.39 and 6.1 in 1999 to 4.60 and 47.7 in 2009, these were lower than that of Asia and world. In terms of rural penetration, the share of rural business in total volume of insurance business was still low in India. LIC of India, which is the dominant player in life insurance sector, has issued only 26.39% of its new policies in rural areas and the sum assured was 18.84% in 2009-10. This was far less than the 57.50 % of new policies out of total policies issued in 1999-00.

The fifth chapter relates to efficiency and productivity of life insurance industry. DEA analysis provides evidence of improvement in firm level as well as industry efficiency over the years taken. The efficiency scores of 12 to15 Indian life insurers have been estimated from the year 2001-02 to 2009-10. SBI and LIC were the only two insurers which remained efficient throughout the years, in terms of CRS VRS and SE. CRS as well as VRS efficiency has almost doubled in the time period taken i.e. from 2001-02 to 2009-10. Thus it suggests that liberalization has contributed to efficiency gains of firms over the years. The MPI and it two components, technical efficiency change (TEC) as well as technical change (TC) were estimated for the insurers. Only 4 insurers could have shown improvement in average productivity while 2007-08 no insurers could make productivity improvement. However as a healthy sign, 14 out of 15 insurers showed technical efficiency improvement in 2009-10. In a given year, insurers have either improved efficiency or deteriorated efficiency. The exception was SBI and LIC which maintained efficiency with technical progress.

There was technical efficiency improvement over the sample period. The mean technical efficiency ranged between 0.33 in 2001-02 and 0.76 in 2009-10. The average pure technical efficiency during the years improved from 0.35 in 2001-02 to 0.81 in 2009-10 while the mean scale efficiency ranged between 0.96 in 2001-02 and 0.94 in 2009-10. Pure technical efficiency reflects the efficiency of resource allocation and internal management, whereas scale efficiency reflects whether or not the firm is operating at the optimal scale . The industry has scope for improvement in both pure technical and scale efficiency.

Table 7.2- Summary of average efficiency and productivity of Indian life insurance industry.

Year	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
No. of firms	12	13	13	14	15	15	15	15	15
TE(CRS)	0.33	0.37	0.45	0.52	0.63	0.64	0.64	0.63	0.76
PTE(VRS)	0.35	0.39	0.46	0.53	0.72	0.73	0.76	0.73	0.81
SE	0.96	0.97	0.98	0.98	0.90	0.89	0.86	0.87	0.94
MPI	--	0.87	1.08	1.00	1.15	0.95	0.92	0.88	0.99
TEC	--	1.33	1.44	1.36	1.41	1.09	1.03	1.01	1.22
TC	--	0.67	0.81	0.83	0.88	0.92	0.91	0.91	0.81

(Note-MPI and its components compare changes across two-year periods ending in the indicated year.)

Table 7.3- Summary of distribution of insurers by level of efficiency.

Year		2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
Number of firms		12	13	13	14	15	15	15	15	15
TE	1> 0.90	2	2	2	2	4	4	3	3	5
	0.90>0.75	0	0	0	1	1	1	1	0	3
PTE	1> 0.90	3	2	2	3	6	6	5	5	6
	0.90>0.75	0	1	1	1	1	1	2	1	4
SE	1> 0.90	9	12	12	13	13	12	9	10	12
	0.90>0.75	0	0	0	0	0	0	3	2	2

In terms of TE, out of 12 insurers only two insurers were having efficiency more than 0.90 in 2001-02 but this was increased to 5 firms in 2009-10. In case of PTE, the number of efficient insurers was 6 in 2009-10. The number of insurers having the scale efficiency more than 0.90 was 12 in 2009-10. If the Insurers with efficiency more than 0.90 can be considered as efficient, the number of efficient insurers has increased significantly over the period.

The sixth chapter relates to innovation in the industry. The liberalization of insurance has augured well for the sector witnessing introduction of new products in recent years. Almost 50 % of the companies were offering around 10 products per year on an average. The number of product available in the market has increased tremendously in the wake of liberalization. The sale of traditional life insurance products such as individual, whole life and term insurance remained popular but sale of new products such as single premium, unit linked, retirement products and annuity products are on the rise. Both private and public insurers have shown an increasing trend of linked business throughout the years taken. However, the dominance of linked business over traditional product was more in private insurance compare to LIC. In case of private insurers, the percentage of linked business increased from 46.82 percent in 2005-06 to 76.38 in 2009-10 and that in case of LIC is 2.10 to 17.76 The percentage of non- linked business to total business was decreasing over the years.

Regarding customer services, on an average more than 80% of the complaints were dissolved by Ombudsmen cell for these years. The percentage of complaints dissolved to total complaints in grievances cell was increasing over the years. The percentage of complaint dissolved was more for private insurance companies compare to that of LIC. However the rise in number of complaints is more in case of private insurers.

Indian insurance companies are using information technology in one form or the other at various levels. The average expense of Bajaj on information technology was highest followed by Reliance and then ICICI. The use of the Internet to distribute life insurance products has only emerged recently and has not made a significant impact so far, partly because of the substantial advisory component of most life insurance products.

Private sector entry has brought with it a transformation in the way life insurance is distributed. Brokers, corporate agents and other alternate channel distribution have come up and made their share of contribution to the growth. Individual agents still dominated to the contribution of new business underwritten, but its share has decreased tremendously. For the private sectors a large junk of business was written through corporate agents including bank.

It is difficult at this stage to analyze the determinant variables for performance of life insurers. However the performance in terms of Technical efficiency can be attributed to market share in terms of premium as well as total assets and number of product launched. LIC remained at top spot in efficiency and market share of both premium and total assets. SBI which was efficient throughout the years, also have good share of premium and total assets share. ICICI was also more efficient relative to other private insurers in all the years and its market share and number of new products offered was also relatively higher than other private insurers. Birla, ICICI, LIC, HDFC and SBI were the insurers which have relatively better performance than others in all three variables examined.

In terms of their claim history also, Birla, ICICI, LIC, HDFC and SBI were the insurers which remained among the top 5 in of the highest percentage of claim paid in benefit amount, lowest percentage of claim repudiated in benefit amount and the lowest percentage of claim pending in benefit amount over the three. They were never at the bottom of these indicators in the three years ranking (2007-08 to 2009-10) except HDFC at the 5th bottom in 2008-09 for the lowest percentage of claim repudiated in benefit amount.

In sum, the results of this study support the preposition that the reforms in the insurance sector contributed to the overall development of this sector. It has enhanced competition as indicated by the fall in concentration ratios and increased insurance density and penetration. It has provided an option to the customers to choose firms, products and riders. The firm level as well as industry level efficiency and productivity have improved.

However, the Indian life insurance sector needs to improve further. The impact of increased competition is yet to be fully realized on insurance penetration in rural areas. The huge potential of the life insurance market development in rural areas is still under developed. The efficiency and productivity of private life insurers are still lagging behind that of LIC. It is likely that new entrant tend to show lower efficiency because of their higher initial cost. Though the ULIPs and single policies have contributed to high growth of life insurance over the years after liberalization, they are short term products, have low margin and have a very low proportion of risk coverage. More innovation in product market with transparency in dealing and specially claim settlement, building trust are major challenges for life insurers. Moreover, alternate distribution channels like bancassurance are under experiment and are still unexplored in sale of products. Though the popularity of insurance has increased manifold, lack of customer education is also one of the major obstacles in development of insurance market. There is strong need to educate rural and semi urban masses on the need for security that protects their livelihood. The IT used in insurance industry is mostly related to Knowledge Management, Document Management System and Workflow Automation. Enhancing consumer awareness will help the life insurers to initiate, expand and sustain the business diversification by rural –urban segment, type of policies and supply chain management.

7.2 Directions for Future Research

For future research, a detailed analysis of the relationship between efficiency, and the structure and performance of the life insurance should be tested. More research needs to be done to examine the channels through which concentration and the competitiveness of the financial system impact stability. Further studies on efficiency should also be conducted employing different output definition, data from different sources and different measures of efficiency such as allocative, cost, revenue and profit efficiency. Impact of liberalization and deregulation on life insurance can also be compared with that in general insurance. Actuarial, IT, reinsurance, healthcare and pharmaceutical sector are the other areas of insurance which need more research for their development and policy implication.