Analysis of the Risk Retention Position of Life Insurance Corporation of India (LIC) and SBI Life Insurance Co.

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Abstract

Insurance is one of the upcoming and fast growing activities in the modern business environment. It provides risk coverage to all the individuals and business communities in general. Life Insurance is one of the types of insurance available to the individuals and business persons. LIC is a public company and SBI life insurance co. is one of the leading companies in life insurance market amongst the private life insurance companies. Evaluation of financial performance is a continuous process of regulator. The objective of this research paper is to analyse risk retention capacity of the LIC and the SBI Life Insurance Co. for the period of 11 years from 2004–05 to 2014-15. For the purpose of evaluation of risk retention capacity CARAMEL model is taken and suggestions have been offered.

Keywords: *Life Insurance, LIC, SBI Life Insurance Co., Risk Retention Position, CARAMEL Model*

Paper Type: *Analytical Research*

Introduction

Since 1956, with the nationalization of the insurance industry, the LIC has held the monopoly in India's life insurance sector. LIC played a crucial role in the development of the insurance market in India and in providing insurance coverage in India through an extensive network. From 1991 onwards, the Indian Government introduced various reforms in the financial sector paving the way for the liberalization of the Indian economy. With liberalisation many private companies with foreign partner entered into the insurance market. LIC is the largest government insurance company in India, selling insurance products and related services and SBI Life is one of the leading company in private sector. Evaluation of financial performance is a continuous process of regulator. Financial soundness is a key to success and stability of the insurance sector and therefore regulators have developed different kinds of models to evaluate their work. This paper is focusing on analyzing risk retention position of LIC and SBI Life Insurance Co.

Objectives of the Study

1. To analyse the risk retention position of the Life Insurance Corporation of India (LIC) and the SBI life insurance company.
2. To analyse the consistency in the risk retention position of the LIC and the SBI life insurance company.

Hypotheses of the Study

1H$_1$: There is a significant difference between the risk retention position of the Life Insurance Corporation of India (LIC) and the SBI Life Insurance Company.

2H1: There is a significant difference in the consistency of the risk retention position of the Life Insurance Corporation of India (LIC) and the SBI Life Insurance Company.

Methodology of the Study

The present study is based on the secondary data which is procured from Life Insurance Corporation of India (LIC) annual reports, SBI life insurance annual reports, IRDA annual reports, books, journals, magazines and web pages.

The evaluation of risk retention position is based on the CARAMEL model framed by IMF.

Period of the study

The study period from 2004 – 05 to 2014-15 is taken to analyse the risk retention position of Life Insurance Corporation of India (LIC) and SBI life insurance company.

Limitations of the Study

The present study faced with certain limitations during the course of research. They are as follows:

1. The study covers only the period from the year 2004-05 to the year 2014-15.
2. In lieu with the topic of research study the data analysis is done based on secondary data.
3. The study is based on CARAMEL model framed by the International Monetary Fund (IMF).
4. Interpretation of ratios may differ from person to person, time to time.
5. The present study may not hold good over a period of time because of the continuous improvements in the insurance sector.

Testing of Hypotheses

The risk retention position was statistically tested with the help of statistical tools, viz.

- Mean to know the risk retention position,
- Standard deviation to know the consistency of the risk retention position,
- T-test for the equality of means,
- Levene's Test for the equality of variances,

Literature Review

Chilumuri, S. (2013) evaluated performance of Indian life insurance industry and SBI life insurance. It was found that the life insurance companies were showing negative growth and the non-life insurance companies were showing positive growth during 2011-12 when compared to the previous years.

Das, Davies and Podpiera (2003) proposed CARAMELS (Capital Adequacy, Asset quality, Reinsurance and Actuarial Issues, Management Soundness, Earnings and Profitability, Liquidity and Sensitivity to

Market Risk) parameter to assess the financial health and soundness as well as to evaluate the financial performance of insurance companies.

Ghimire, R., & Kumar, P. (2014) analyzed the financial performance and soundness of Life insurance companies in Nepal on the basis of the CARAMEL model during the year 2007 - 08 to 2011 - 2012. The study revealed that the financial status of the life insurance companies from different six aspects give the mixed results but still companies are improving.

Patel, R (2013) studied solvency of 12 non life insurance companies by comparing ratios with ISI benchmark ratios. It was found that solvency of all companies adhered to ISI benchmark.

Ansari1, V. & Fola, W. (2014) analysed the financial Soundness and Performance of Life Insurance Companies in India taking CARAMEL model. Study found that Indian life insurance companies have been satisfactorily financially sound.

Kumari,T. & Dorthy, B. (2014) evaluated performance of SBI life insurance company by analysing number of SBI life insurance offices, number of corporate agents, number of individual agents, life insurance premium growth, income from investments, and ratios analysis by CARAMEL parameters.

Jena, A (2014) analysed financial performance of LIC, SBI life, ICICI life, Birla Sun life, HDFC standard life by ratio analysis. It was found that LIC has good investment in current assets where as other companies required more investments in current assets.

CARAMEL Model

In the insurance companies performance, quantitative soundness indicators are presented in CARAMELS framework (Capital adequacy, Asset quality, Reinsurance and Actuarial Issue, Management soundness, Earnings and profitability, Liquidity and Sensitivity to market risk), which adds the reinsurance and actuarial part to the CAMELS framework. It is important to note that some indicators used for banks are different in construction when used for insurance companies and require different interpretation.

Evaluation of the risk retention position is based on the CARAMEL model, had proposed by Das, Davies and Podpiera (2003) later duly was endorsed by IMF for adoption of regulatory and supervisory body as an individual parameters.

Risk Retention Position

Reinsurance and Actuarial issues also known as the risk retention ratio reflects the overall underwriting strategy of the insurer and depicts what proportion of risk is passed on to the reinsurers. Overall, insurer's capital and reinsurance cover need to be capable of covering a plausible severe risk scenario. If the insurer relies on reinsurance to a substantial degree, it is critical that the financial health of its reinsurers is examined. The adequacy of technical reserves also called as a survival ratio shows the quality of the company's estimate of the value of reported and outstanding claims.). In general, the adequacy of technical reserves should increase in step with the volume of long term business taken on, from shifts in business composition. The fairly high ratio reflects better technical reserves compared to the average net premium received & average of net claims paid in the last three years, highlighting the financial soundness and dependability of an insurance company.

Source: Compiled from the Insurance and Issues in Financial Soundness. IMF Working Paper WP/03/138

In order to analyse the risk retention capacity of insurance companies following three ratios have been analysed:

i. Risk Retention Ratio

ii. Net Technical Reserves to Average of Net Claims paid in the last three years (Survival Ratio)

iii. Net Technical Reserves to Average of Net Premium Received in the last three years (Survival Ratio)

Analysis and Interpretation of Data

i. Risk Retention Ratio

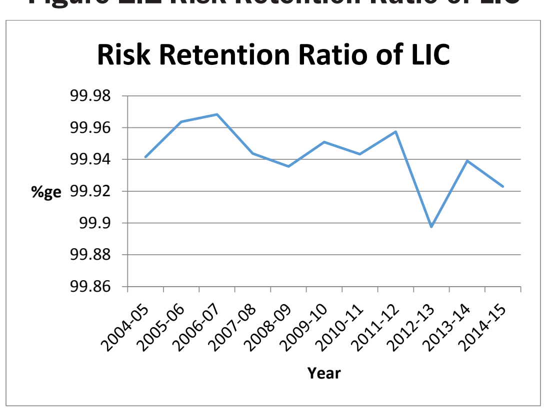
This ratio denotes the risk that is retained by the company and hence shows its risk bearing capacity. Higher ratio is an indicator of high risk bearing capacity of the insurers. Due to high ratio, it is expected that insurers instead of paying towards reinsurance believe in investing the money received from premium.

Table 1.1: Risk Retention Ratio

Year	LIC (%)	SBI Life Insurance Co. (%)
2004-05	99.94	99.69
2005-06	99.96	99.79
2006-07	99.97	99.83
2007-08	99.94	99.81
2008-09	99.94	99.87
2009-10	99.95	99.77
2010-11	99.94	99.72
2011-12	99.96	99.60
2012-13	99.90	99.35
2013-14	99.94	99.24
2014-15	99.92	99.32

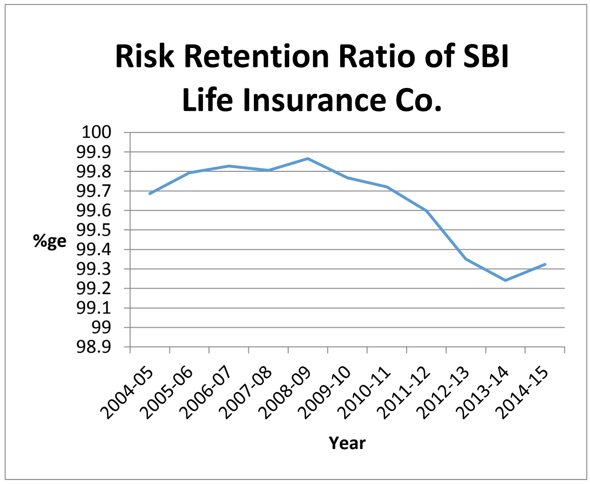
Source: Compiled from the annual reports of LIC and SBI Life Insurance Co. of various years from 2004-05 to 2014-15.

Figure 1.1 Risk Retention Ratio of LIC



Source: Compiled from the annual reports of LIC and SBI Life Insurance Co. of various years from 2004-05 to 2014-15.

Figure 1.2 Risk Retention Ratio of SBI Life Insurance Co



Source: Compiled from the annual reports of LIC and SBI Life Insurance Co. of various years from 2004-05 to 2014-15.

The table 1.1 shows that there is hardly any change in the ratio of the LIC and SBI Life Insurance Co. ratio. From the table it is observed that the life insurers under the study preferred retaining risk at their own destiny to passing the risk onto the reinsurers so as to boost up their profits by reducing the transaction costs and sharing of premium income with reinsurers, during the study period.

ii. Net Technical Reserves to Average of Net Claims paid in the last three years (Survival Ratio)

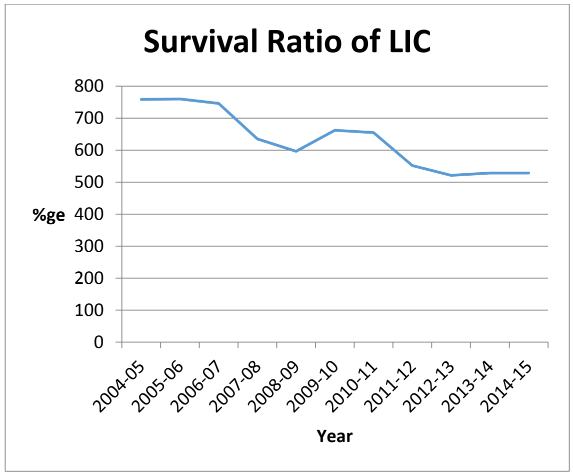
Company must have adequate technical reserves to pay the claims that arise with ease. As a rule of thumb the higher the ratio, the better is the company equipped to handle the claims.

Table 1.2 Net Technical Reserves to Average of Net Claims paid in the last three years (Survival Ratio)

Year	LIC (%)	SBI Life Insurance Co. (%)
2004-05	757.81	2511.38
2005-06	759.51	2024.46
2006-07	746.08	1775.48
2007-08	634.98	1559.83
2008-09	596.12	1204.15
2009-10	662.04	1217.27
2010-11	654.90	975.31
2011-12	551.40	467.62
2012-13	521.16	287.77
2013-14	528.35	197.87
2014-15	528.26	167.87

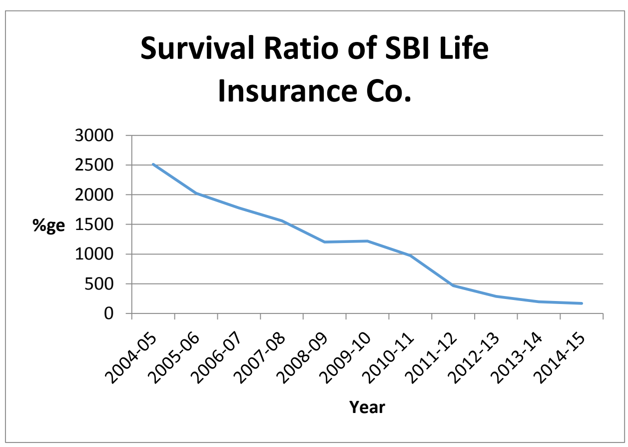
Source: Compiled from the annual reports of LIC and SBI Life Insurance Co. of various years from 2004-05 to 2014-15.

Figure 1.3: Net Technical Reserves to Average of Net Claims paid in the last three years ratio of the LIC (Survival Ratio)



Source: Compiled from the annual reports of LIC and SBI Life Insurance Co. of various years from 2004-05 to 2014-15.

Figure 1.4 : Net Technical Reserves to Average of Net Claims paid in the last three years ratio of SBI Life Insurance Co. (Survival Ratio)



Source: Compiled from the annual reports of LIC and SBI Life Insurance Co. of various years from 2004-05 to 2014-15.

It is observed from the table 1.2 that technical reserves of the LIC are decreasing compared to claim paid in the last three years. Decreasing trend is observed in the ratio for both the insurers under the study. The analysis reflects the decreasing trend as decreasing pattern of technical reserves for LIC as well as SBI Life Insurance Co. It is observed that proportion of claims paid are increasing more than increase in technical reserves.

iii. Net Technical Reserves to Average of Net Premium Received in the last three years (Survival Ratio)

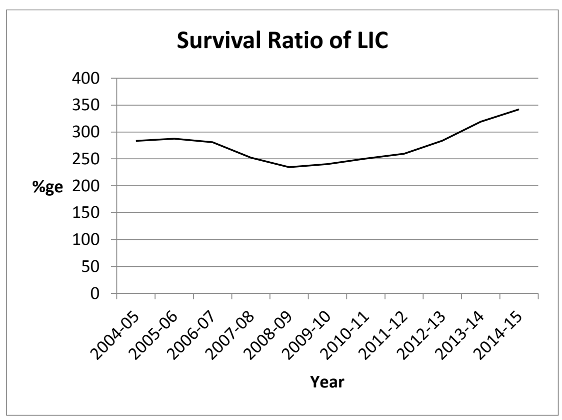
This ratio reflects the adequacy of technical reserves of the company for the business retained by the company. As a rule of thumb higher ratio is better.

Table 1.3 Net Technical Reserves to Average of Net Premium Received in the last three years (Survival Ratio)

Year	LIC (%)	SBI Life Insurance Co. (%)
2004-05	283.49	239.88
2005-06	287.41	163.85
2006-07	280.80	138.11
2007-08	252.08	88.45
2008-09	234.67	70.20
2009-10	240.18	70.12
2010-11	250.68	69.51
2011-12	259.47	72.00
2012-13	283.97	78.29
2013-14	319.13	96.50
2014-15	341.94	129.37

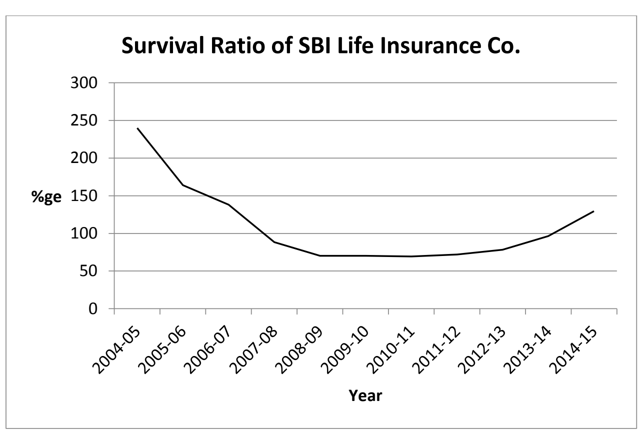
Source: Compiled from the annual reports of LIC and SBI Life Insurance Co. of various years from 2004-05 to 2014-15

Figure 1.5: Net Technical Reserves to Average of Net Premium received in the last three years of the LIC (Survival Ratio)



Source: Compiled from the annual reports of LIC and SBI Life Insurance Co. of various years from 2004-05 to 2014-15

Figure 1.6: Net Technical Reserves to Average of Net Premium received in the last three years of the SBI Life Insurance Co. (Survival Ratio)



Source: Compiled from the annual reports of LIC and SBI Life Insurance Co. of various years from 2004-05 to 2014-15

Table 1.3 shows that both the companies reported decreasing trend in the earlier years of the study period. Ratio has started improving from the year 2012-13. Both the companies have a strong technical reserves base but survival ratios show that proportion of increase in technical reserves is less than increase in claim paid and increase in premium received.

Statistical Analysis and Interpretation of data

Table 1.4 Statistical Analysis of Risk Retention Capacity

RATIO	Company	N	Mean	Std. Deviation
Risk Retention Ratio	LIC	11	99.942164	.0196621
	SBI	11	99.634273	.2250922
Net Technical Reserves to Average Claim Paid Ratio	LIC	11	630.964164	93.8612200
	SBI	11	1126.274718	793.0456914
Net Technical Reserves to Average of Net Premium Received Ratio	LIC	11	275.802127	33.1034905
	SBI	11	110.572255	53.7036179

RATIO	Levene's Test for Equality of Variances		t-test for Equality of Means		
	F	Sig.	t	Df	Sig. (2-tailed)
Risk Retention Ratio	26.134	.000	4.519	10.153	.001
Net Technical Reserves to Average Claim Paid Ratio	19.853	.000	-2057	10.280	.066
Net Technical Reserves to Average of Net Premium Received Ratio	2.051	.168	8.687	20	.000

Interpretation

1. From the table 1.4 it is observed that for 'risk retention ratio' the standard deviation of the LIC is lower than the standard deviation of SBI Life Insurance Co. Hence, the 'risk retention ratio' of the LIC is more consistent than the 'Risk Retention ratio' of SBI Life Insurance Co. Since in Levene's test the P- value (Sig.) is = 0.000 which is < 0.05, there is a significant difference between the standard deviations of the LIC and SBI Life Insurance Co.
2. From the table 1.4 it is seen that for this ratio t = 4.519 and P=0.001 which is < 0.05, there is a significant difference between the mean value of 'risk retention ratio' of the LIC and SBI Life Insurance Co. Mean value of the 'risk retention ratio' is significantly higher for LIC than for the SBI Life Insurance Co.
3. From the table 1.4 it is observed that for 'net technical reserves to average of net claims paid in the last three years ratio' the standard deviation of the LIC is lower than the standard deviation

of the SBI Life Insurance Co. Hence, the 'net technical reserves to average of net claims paid in the last three years ratio' of the LIC is more consistent than the 'net technical reserves to average of net claims paid in last three years ratio' of SBI Life Insurance Co. Since in Levene's test the P- value (Sig.) is = 0.000 which is < 0.05, there is a significant difference between the standard deviations of the LIC and the SBI Life Insurance Co.

4. From the table 1.4 it is seen that for this ratio t = 2.057 and P=0.066 which is > 0.05, there is no significant difference between the mean value of 'net technical reserves to average of net claims paid in the last three years ratio' of the LIC and the SBI Life Insurance Co. Mean value of the 'net technical reserves to average of net claims paid in the last three years ratio' is significantly higher for the SBI Life Insurance Co. than for the LIC.

5. From the table 1.4 it is observed that for net technical reserves to average of net premium received in the last three years ratio' the standard deviation of the LIC is lower than the standard deviation of SBI Life Insurance Co. Hence, the 'net technical reserves to average of net premium received in the last three years ratio' of the LIC is more consistent than the net technical reserves to average of net premium received in the last three years ratio' of SBI Life Insurance Co. Since in Levene's test the P- value (Sig.) is = 0.168 which is > 0.05 there is no significant difference between the standard deviations of the LIC and SBI Life Insurance Co.

   From the table 1.4 it is seen that for this ratio t = 8.687 and P = 0.000 which is < 0.05, there is a significant difference between the mean value of net technical reserves to average of net premium received in the last three years ratio' of the LIC and SBI Life Insurance Co. Mean value of the net technical reserves to average of net premium received in the last three years ratio' is significantly higher for LIC than for SBI Life Insurance Co.

Thus, hypothesis 1H1 is partially accepted there is a significant difference between risk retention position of Life Insurance Corporation of India (LIC) and SBI Life Insurance Co. except in case of 'net technical reserves to average of net claim paid ratio.

2H1 is partially accepted there is a significant difference in the consistency of risk retention position of Life Insurance Corporation of India (LIC) and SBI Life Insurance Co. except in case of 'net technical reserves to average of net premium received ratio.

Suggestions

1. LIC and SBI Life Insurance Co. both should design insurance products as per the needs of the customers. Both the companies need to properly tailor their products accordingly so can increase net premium.
2. LIC and SBI Life Insurance Co. can try to cover untapped rural area which will help to increase their business and profit.
3. Risk management, product innovation, cost control can help both the companies to improve their financial performance and lead in the market.
4. Indian Insurance companies can also analyze their performance by CARAMEL model with the guidelines given by IRDA.

5. For the improvement of reinsurance ratio, proper management of technical reserves position will help both the companies to retain and manage maximum risk efficiently.

Conclusion

Reinsurance and actuarial analysis shows that no credit risk is seen for both the insurers since both the companies pass less than 1% risk to reinsurance co. Reinsurance premiums have been very well retained by the LIC and SBI Life Insurance Co. The net technical reserves to average of net claims paid in the last three years ratio LIC and SBI Life Insurance Co. reported decreasing trend. The net technical reserves to average of net premium received in the last three years ratio of LIC has reported decreasing trend till 2008-09 and SBI Life Insurance Co. has reported decreasing trend till the year 2010 -11 then slight increasing trend is observed. Thus, it is concluded that technical reserves base is good in both the companies, but the proportion of increase in technical reserves is less in line with the increasing average premium received and average claims paid.

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