FINANCIAL PERFORMANCE ANALYSIS OF SELECT LIFE INSURANCE COMPANIES OPERATING IN INDIA

Bishnu Kumar Saw

Research Scholar, Department of Commerce
Sidho Kanho Birsha University, Purulia, West Bengal

Abstract

Before establishment of IRDAI there was a monopoly of LICI in life insurance business in India for a quite long period. Establishment of IRDAI paved the way for the private insurers to do life insurance business since the year 2000 to bring a true competitive environment among the insurers, and consequently now 23 private life insurance companies are running side by side the only public sector insurer LICI.

In the present paper an attempt has been made to analyze the financial performance of select six private life insurers and the state-owned LICI taking a study period of 10 years from 2010-11 to 2019-20. The major objectives of the study are: (1) to compare the financial performance of the sample companies; (2) to rank these companies and (3) to find out the major determinants of their profitability.

Considering various financial performance indicators, the companies have been ranked. Afterwards, necessary regression analysis has been made to know the impact of major predictor variables on the profitability of the sample companies.

Key words: *Solvency Ratio, Persistency Ratio, Claim Settlement Ratio, Commission Expense Ratio, Asset Size, Return on Equity*

FINANCIAL PERFORMANCE ANALYSIS OF SELECT LIFE INSURANCE COMPANIES OPERATING IN INDIA

Introduction: Insurance sector is one important sector in India. Before 1956 all businesses in life insurance or in general insurance were running under de-regulated regime. In the year 1956 on 19th January, the Government of India issued an Ordinance with a view to nationalize insurance business in India. In the same year Life Insurance Corporation of India came into existence. The LICI absorbed 245 Indian and foreign insurers consisting of 154 Indian insurers, 16 non-Indian insurers and 75 provident societies,. Till the later part of the decade of 90s, the LICI had monopoly over insurance business. Then Insurance business was reopened to the private sector. Giving hour to the recommendations of the R.N. Malhotra Committee report, in the month of April 2000, the Insurance Regulatory and Development Authority of India (IRDAI) was established. The main objective of IRDAI was to regulate and develop the insurance industry in India. The key objectives of the IRDAI included – (i) promotion of healthy competition among the insurers so that customer satisfaction increases; (ii) to lower insurance premiums, and (iii) to ensure financial security in the insurance market. The establishment of IRDAI paved the way for opening up of the whole insurance sector to the private insurers, and consequently a competitive environment among them was created. As per IRDAI regulations, since 2000 a number of life insurance companies came forward for doing their businesses, and as of now 24 life insurance companies are operating in India. Of them only LICI is under public sector and remaining 23 insures are under private sector.

The present research paper makes an attempt to make a comparative analysis of financial performance of seven select life insurance companies. The select life insurance companies include six private sector companies namely AB Sunlife, HDFC Life, ICICI Prudential Life, Max Life, SBI Life and Tata AIA Life, and the only public sector life insurance company i.e.,Life Insurance Corporation of India. For the purpose of the study, LICI has been taken because this is the only state-owned life insurance company. Six life insurance companies from the private sector have been selected considering two points – (i) Each of them was established in 2000 or 2001 i.e. soon after permission was granted by IRDAI to do insurance business by the private companies and (ii) Equity Capital is at least Rs 1000 crore.

Review of literature: B. Charumathi (2012) in the research paper titled "On the Determinants of Profitability of Indian Life Insurers –An Empirical Study" made an attempt to know the determinant factors of the profitability of Indian life insurers, and for this he took Return on Assets

(ROA) as the dependent variable.For this purpose, the author took the 23 India Life Insurers (1 public and 22 private) as sample. The study revealed that the profitability of life insurers is positively and significantly influenced by the asset size and liquidity. The leverage, premium growth and logarithm of equity capital negatively and significantly influenced the profitability of Indian life Insurers. Further, the author's study revealed that there was no relationship between underwriting risk and profitability. The author has recommended that the life Insurers should shift their focus towards a number of items such as designing of the products, providing long term savings and protection for the economy, through sustainable business models.

Dr. Sumninderkaur Bawa and Samiya Chattha (2013), in their articles titled "Financial Performance of Life Insurers in Indian Insurance Industry" tried to study the impact of liquidity, solvency, leverage, asset size and equity capital on the profitability of life insurers and attempted to examine the financial performance of life insurers in India. The objective of the study was to examine the financial performance of Indian life insurance companies by analysing the determinants of their profitability. For judging the performance for measuring financial performance, some financial ratios were taken. Such ratios were current ratio, solvency ratio, return on asset ratio and insurance leverage ratio. The study revealed that the public sector insurer LICI has sound liquidity position among all the life insurers. Regression analysis result shows that profitability is significantly and positively related with liquidity and asset size. On the other hand, the relationship between profitability and capital is significantly negative. Another finding of the researcher was that profitability has no significant relationship with solvency and insurance leverage.

Mr. Sumit Bodla, Et. Al (2017), in their article" Profitability Performance of Life Insurance companies – A Study in Indian Context" tried to analyse the profitability performance of private sector life insurance companies and to make a comparison between the profitability performance of public and private sector life insurers. The study revealed that the life insurance industry has been able to achieve a massive growth of premium after allowing the entry to the private players in insurance business .This study concluded that for sustainable development, most of the life insurers in India should improve their underwriting income. For registering profits, they should also have control on expense ratio and other cash outflows.

Shilpa Agarwal and A.K. Mishra (2017) in their paper titled "Life Insurance Industry of India - Past, Present & Future" have tried to analyse the performance and growth of LIC during pre- LPG and post-LPG era and also future trend of business of this insurer. The study brought out that after initiation reforms measures in the insurance sector, life insurance industry has witnessed a remarkable growth. Moreover, the policy measures helped a lot to all the insurance companies in the country. The researchers have recommended that for enhancing its business, LIC should pay more attention in the area of improvement of technology distribution network, technological innovations, better client relationship etc.

Supriyaa (2018), in his research study “Evaluation of Financial Performance of Life Insurers in India” has examined the financial performance of life insurers with the help of output maximisation model. For the evaluation, the researcher has taken 6 life insurance Companies of India and a study period of six financial years. The researcher concluded that private insurers are seen to hold significant portion of market share in terms of business volume. Consequently, to meet solvency norms as per IRDA guidelines, fresh capital in addition to the minimum requirement of 100 crores has been employed. The public sector LIC has to focus on capital adequacy and reinsurance and actuarial issues improvements.

Whereas the private life insurance companies have to focus on underwriting processes and its related expenses, earnings and profitability, liquidity position and its improvements. The analysis reveals that the private insurers are at some advantageous position in comparison to LIC because average claims for settlement in the cases of private sector life insurers are lower than that of the public sector insurer.

Pranab Dhar (2018), in his paper,” Growth of Life Insurance Business in India: A Study” has measured the growth of life insurance industry and compared between Life Insurance business in public sector and private sector in India. The paper concluded that rise in the growth rate of life insurance business in India implies the growth of the economy. Further, financial policies and monetary policies can help a lot to sustain a stable growth rate.

Objectives of the study

The study aims at analyzing performance of select seven life insurance companies in India as stated above during the study period. The major objectives of the present study are:

1.To make a comparative study among the select life insurance companies on the basis of their respective financial performance indicators.

2. To rank them on the basis of their overall financial performance.

3. To find out the major determinants of profitability of the sample companies.

Database and Study Period

The study period taken for the present research paper is from 2010-11 to 2019-20 and only secondary data have been used for the study. The required data have been collected mainly from the sources like published annual reports of the sample companies and website of Insurance Regulatory and Development Authority of India (IRDAI).

Brief Description of major performance indicators

Solvency Ratio

From Solvency Ratio of a life insurance company one can get an idea about its financial soundness. As per IRDAI norms, each and every life insurance company must maintain solvency ratio at least 150 per cent so that it can minimise the risk of insolvency. An insurance company with higher solvency ratio can easily meet its short-term as well as long-term liabilities.

For computation of solvency ratio, after-tax operating income of the company is divided by its liabilities.

Higher solvency ratio indicates that there is a greater probability of the policy-holders' claims to be settled.

Persistency Ratio

Persistency ratio indicates the continuity of the existing policy holders in the matter of renewing their policies. It is the percentage of the total policy holders in the previous year who are giving renewal premium in the current year. It is generally calculated at the end of certain time period intervals. Most commonly used Persistency Ratios are at 13th month, 25th month and 61st month. From persistency ratio of different time period intervals, an assessment can be made regarding the faith of the policy holders on the life insurers in respect of their insurance schemes.

This ratio reflects the satisfaction of the policy holders. Low persistency ratio means that the insurer is unable to retain the policy holders, and high persistency ratio indicates that the policy holders are satisfied with the company for a number of benefits and services such as product port-folio, after-sale service, return on product etc.

Claim Settlement Ratio

It is a metric to judge the ratio of life insurance claims an insurer has resolved during a financial year against number of claims submitted with the insurer during financial year plus pending claims of last year. It is also computed on the basis of benefit amount settled against benefit amount submitted with the company for settlement.

Commission Expenses Ratio

The ratio between Commission expenditure paid by the insurer and net insurance premium collected by it is called commission expense ratio, which is expressed as a percentage. A high commission expense ratio will have adverse effect on the profitability of the insurer.

Return on Equity (ROE)

Net Profit after tax as percentage of Equity Capital has been taken as Return on Equity

Research Methodology

A few simple arithmetical and statistical tools like Mean, Standard Deviation (SD) and Coefficient of Variation have been used in the study. At first, by taking the mean, S.D. and C.V. values of the major performance indicators of the select seven insurance companies, ranking has been made. Here, the major performance indicators of the companies include First Year Life Insurance Premium, Renewal Premium, Solvency Ratio, Persistency Ratio of 13th month and 61st month, Claim Settlement Ratio based on number of policies and also based on benefit amount settled, RoE, Net profit as percentage of Assets under Management,Commission Expenses Ratio and Operating Expenses Ratio.Then, by taking Return on Equity (ROE) as the DependentVariable, and Solvency Ratio (SR), Claim Settlement Ratio based on benefit amount settled (CR), Asset Size i.e. the log value of Asset under Management (AS) and Commission Expenses Ratio (CER)as predictor variables, a regression analysis has been made. SPSS software (version 23) has been used for necessary computations.

Ranking of the Seven Select Life Insurance Companies

Considering the financial performance of all the sample companies, ranking scores have been assigned to each of the sample companies on the basis of the values of mean, standard deviation and coefficient of variation in respect of different financial performance indicators. Finally, ultimate ranking has been made on the basis of total scores. This is shown below in following four tables.

Table-1 (a)

Major Performance Indicators of Seven Select Life Insurance Companies of India during 2010-11 to 2019-20

Items	AB Sunlife	HDFC Standard Life	ICICI Prudential Life	Max Life	SBI Life	Tata AIA Life	LICI
Mean of First Year Life Insurance Premium	2447.00	8056.70	7289.63	3233.72	8849.95	1265.77	109256.13
Mean of Renewal Insurance Premium	3510.28	9801.09	13322.71	6521.12	10745.41	2635.50	160126.43
Mean of Solvency Ratio	224.70	192.10	306.50	339.20	242.70	312.60	155.70

Mean of Persistency Ratio of 13^{th} month	61.04	70.33	76.01	75.80	69.49	55.17	64.60
Mean of Persistency Ratio of 61^{st} month	36.34	47.54	41.11	37.10	29.21	26.17	45.70
Mean of Claim Settlement ratio based on policies settled	92.54	96.04	96.25	94.29	92.90	92.34	97.77
Mean of Claim Settlement ratio based on benefit amount settled	84.38	84.22	88.93	89.58	89.38	86.41	95.11
Mean of Net Profit after tax as %age of Equity Share Capital (%)	13.55	37.52	98.14	24.19	88.19	8.93	5726.46
Mean of Net Profit after tax as% age of Assets Under Management (%)	1.04	0.94	1.45	1.47	1.06	0.99	0.10
Mean of Commission Expenses Ratio (%)	5.07	4.49	4.22	8.19	4.25	6.05	6.13
Mean of Operating Expenses Ratio (%)	17.34	12.49	11.02	16.33	8.13	21.10	8.85

Source: Author's Computations based on data from IRDAI Annual Reports

Note: Life Insurance Premium in Rs Crore and others in percentage

Table: 1 (b)

Major Performance Indicators of Seven Select Life Insurance Companies of India during 2010-11 to 2019-20

Items	AB Sunlife	HDFC Standard Life	ICICI Prudential Life	Max Life	SBI Life	Tata AIA Life	LICI
S.D. of First Year Life Insurance Premium	769.61	4894.29	2821.75	1378.36	3934.52	938.38	34099.09
S.D. of Renewal Insurance Premium	384.12	3427.31	4855.61	2264.44	6491.00	1023.07	30164.76
S.D. of Solvency Ratio	43.63	11.44	68.83	113.86	102.74	67.33	2.16
S.D. of Persistency Ratio of 13th month	13.54	2.63	5.56	3.77	1.43	11.77	3.13
S.D. of Persistency Ratio of 61st month	11.71	20.36	21.61	10.79	12.16	10.12	3.27
S.D. of Claim Settlement ratio based on policies settled	4.94	2.58	1.64	6.40	4.41	6.74	0.56
S.D. of Claim Settlement ratio based on benefit amount settled	7.53	9.68	5.42	7.19	4.14	9.58	0.71
S.D. of N.P. after tax as %age of Equity Cap.	7.87	21.99	20.97	6.30	33.85	6.93	7730.01
S.D. of Net Profit after tax as% age of Assets Under Management	0.81	0.49	0.49	0.58	0.14	0.84	0.01
S.D. of Commission Expenses Ratio (%)	1.00	0.80	0.95	1.34	0.69	2.38	0.74
S.D. of Operating Expenses Ratio (%)	3.20	1.81	2.56	3.68	1.71	1.83	0.82

Source: Author's Computations based on data from IRDAI Annual Reports

Note: Life Insurance Premium in Rs Crore and others in percentage

Table: 1 (c)

Major Performance Indicators of Seven Select Life Insurance Companies of India during 2010-11 to 2019-20

Items	AB Sunlife	HDFC Standard Life	ICICI Prudential Life	Max Life	SBI Life	Tata AIA Life	LICI
C.V. (%) of First Year Life Insurance Premium	31.45	60.75	38.71	42.62	44.66	74.14	31.21
C.V. (%) of Renewal Insurance Premium	10.94	34.97	36.45	34.72	60.41	38.82	18.84
C.V. (%) of Solvency Ratio	19.42	5.96	22.46	33.57	42.33	21.54	1.39
C.V. (%) of Persistency Ratio of 13th month	22.18	3.74	7.31	4.97	2.06	21.33	4.85
C.V. (%) of Persistency Ratio of 61st month	32.22	42.83	52.57	29.08	41.63	38.67	7.16
C.V. (%) of Claim Settlement ratio based on policies settled	5.34	2.69	1.70	6.79	4.75	7.30	0.57
C.V. (%) of Claim Settlement ratio based on benefit amount settled	8.92	11.49	6.09	8.03	4.63	11.09	0.75
C.V. (%) of N.P. after tax as %age of Equity Cap.	58.08	58.59	21.37	26.04	38.38	77.60	134.99
C.V. (%) of Net Profit after tax as% age of Assets Under Management	77.88	52.13	33.79	39.46	13.21	84.85	10.00
C.V. (%) of Commission Expenses Ratio (%)	19.72	17.82	22.51	16.36	16.24	39.34	12.07
C.V. (%) of Operating Expenses Ratio (%)	18.45	14.49	23.23	22.54	21.03	8.67	9.27

Source: Author's Computations based on data from IRDAI Annual Reports

Note: Life Insurance Premium in Rs Crore and others in percentage

The above three tables depict the mean, standard deviation values and coefficient of variation values of the financial performance indicators of the sample companies. Here financial performance indicators that have been taken are firstyear life insurance premium, renewalpremium, solvencyratio, persistency ratioof 13th& 61stmonth, Claim Settlement ratio based on policies settled & benefit amount settled, RoE, Net Profit after tax aspercentage of Assets under Management,Commission expenses ratio and Operating expenses ratio. As number of sample companies is seven, the highest performer company in respect of mean values has been given score-1 and the lowest performer company in respect of same has been given score-7. The procedure for assignment of score, in respect of the standard deviation and coefficient of variation of the aforesaidparameters is just reverse.

That is, here score-1 has been assigned to the company whose S.D. value is lowest and score-7 has been assigned to the company whose S.D. value is highest. Similarly, score-1 has been assigned to the company whose C.V. value is lowest and score -7 has been assigned to the company whose C.V. value is highest. Afterwards, scores of ranks for each of the companies have been added to get overall score. On the basis of overall scores ultimate (i.e., final) ranking has been made for each of the sample companies. The companies with highest overall score have been given rank-7 and the company with lowest overall score has been assigned rank-1.

The afore-mentioned ranking is now shown in the following table:

Table-2

Ranking of Seven select Life Insurance Companies

Basis of Ranking	AB Sunlife	HDFC Life	ICICI Prudential Life	Max Life	SBI Life	Tata AIA Life	LICI
Mean of First Year Life Insurance Premium	6	3	4	5	2	7	1
Mean of Renewal Insurance Premium	6	4	2	5	3	7	1
Mean of Solvency Ratio	5	6	3	1	4	2	7
Mean of Persistency Ratio of 13th month	6	3	1	2	4	7	5
Mean of Persistency Ratio of 61st month	5	1	3	4	6	7	2
Mean of Claim Settlement ratio based on policies settled	6	3	2	4	5	7	1
Mean of Claim Settlement ratio based on benefit amount settled	6	7	4	2	3	5	1
Mean of Net Profit after tax as %age of Equity Share Capital	6	4	2	5	3	7	1

Mean of N.P. after tax as% age of Assets Under Management	4	6	2	1	3	5	7
Mean of Commission Expenses Ratio (%)	4	5	7	1	6	3	2
Mean of Operating Expenses Ratio (%)	2	4	5	3	7	1	6
S.D. of First Year Life Insurance Premium	1	6	4	3	5	2	7
S.D. of Renewal Insurance Premium	1	4	5	3	6	2	7
S.D. of Solvency Ratio	3	2	5	7	6	4	1
S.D. of Persistency Ratio of 13th month	7	2	5	4	1	6	3
S.D. of Persistency Ratio of 61st month	4	6	7	3	5	2	1
S.D. of Claim Settlement ratio based on policies settled	5	3	2	6	4	7	1
S.D. of Claim Settlement ratio based on benefit amount settled	5	7	3	4	2	6	1
S.D. of N.P. after tax as %age of Equity Cap.	3	5	4	1	6	2	7
S.D. of N.P. after tax as% age of Assets Under Management	6	3.5	3.5	5	2	7	1
S.D. of Commission Expenses Ratio (%)	5	3	4	6	1	7	2
S.D. of Operating Expenses Ratio (%)	6	3	5	7	2	4	1
C.V. (%) of First Year Life Insurance Premium	2	6	3	4	5	7	1
C.V. (%) of Renewal Insurance Premium	1	4	5	3	7	6	2
C.V. (%) of Solvency Ratio	3	2	5	6	7	4	1
C.V. (%) of Persistency Ratio of 13th month	7	2	5	4	1	6	3
C.V. (%) of Persistency Ratio of 61st month	3	6	7	2	5	4	1
C.V. (%) of Claim Settlement ratio based on policies settled	5	3	2	6	4	7	1
C.V. (%) of Claim Settlement ratio based on benefit amount settled	5	7	3	4	2	6	1
C.V. (%) of N.P. after tax as %age of Equity Cap.	4	5	1	2	3	6	7
C.V. (%) of Net Profit after tax as% age of Assets Under Management	6	5	3	4	2	7	1
C.V. (%) of Commission Expenses Ratio (%)	5	4	6	3	2	7	1

C.V. (%) of Operating Expenses Ratio (%)	4	3	7	6	5	1	2
Total Score	**147**	**137.5**	**129.5**	**126**	**129**	**168**	**87**
Ultimate (Final)Rank	**6**	**5**	**4**	**2**	**3**	**7**	**1**

It is observed that following the principle of "lowest the total score, the highest is the rank for overall performance", the ultimate rank of 1 goes to the credit of LICI. On the basis of overall sores, the rank of Max Life is 2nd, SBI Life is 3rd, ICICI Prudential Life is 4th, HDFC Standard Life is 5th and AB Sunlife is 6thand rank of Tata AIA Life is 7th.

Now, at first a bi-variate correlation matrix has been drawn to show the relationship among the variables -- Return on Equity (ROE), , Solvency Ratio (SR) ,Claim Settlement Ratio (CSR), Asset Size (AS) and Commission Expenses Ratio(CER) and then Regression results have been shown, where ROE has been taken as the dependent variable and the remaining other variables as the predictor variables.

Pearson's bi-variate Corelations Matrix

*. Correlation is significant at the 0.05 level (2-tailed).

	ROE	SR	CSR	AS	CER
ROECorrelation Sig	1	-.631 .128	.804* .029	.924** .003	.189 .686
SR Corelation Sig	-.631 .128	1	-.183 .694	-.668 .101	.377 .404
CSR Corelation Sig	.804* .029	-.183 .694	1	.813* .026	.319 .486
AS Corelation Sig	.924** .003	-.668 .101	.813* .026	1	-.056 .904
CER Pearson Corelation Sig	.189 .686	.377 .404	.319 .486	-.056 .904	1

**. Correlation is significant at the 0.01 level (2-tailed).

From the above bi-variate correlation matrix it is seen that Correlation Coefficient between Return on Equity (ROE) and Claim Settlement Ratio (CSR) is very high at 0.804 and this correlation is statistically significant at 0.05 significance level. Further, correlation coefficient between Return on Equity (ROE) and Asset Size (AS) is also very high at 0.924 and this correlation is statistically significant at 0.01 significance level, p-value being less than 0.05. Further, Claim Settlement Ratio and Asset Size is strongly positively related with Correlation Coefficient being 0.813 and this correlation is statistically significant at 0.05 significance level, p-value being less than 0.05.

Return on Equity (ROE) and Solvency Ratio (SR) is negatively related and such correlation coefficient is not statistically significant due to p-value being more than 0.05.

Regression Model Summary

Model	R	R Square	Adjusted R Square	Std.Error of the Estimate
1	.968[a]	.937	.810	935.13330

a. Predictors:(Constant):CER, AS, SR, CSR

b, Dependent Variable: ROE

In the regression model summary, the R Square Value is .937which means that 93.7 percent of variation in ROE is explained collectively by four predictor variables Commission Expense Ratio (CER), Asset Size (AS), Solvency Ratio (SR) and Claim Settlement Ration (CSR), and 6.3 per cent of variation remains unexplained. From the adjusted R Square vale of .810, it can be commented that 81.0 per cent of the variance in dependent variable is explained by the model.

Conclusion: Of the select seven life insurance companies, the public sector LICI has emerged as the best performer, though it has lowest solvency ratio. The policy holders have strong faith on this public sector insurance company. Return on Equity is strongly and significantly related with Claim Settlement Ratio and Asset Size.

ROE is negatively related with Solvency Ratio though such relationship is not statistically significant. Four major predictor variables CER, AS, SR and CSR collectively explain more than 93 percent variation in the dependent variable ROE.

References:

1.Bodla, Sumit, Deepak Tandon, Deepak&Bodla, B. S., (2017)," Profitability Performance of Life Insurance Companies – A Study in Indian Context, International Journal of Computing and Business Research (IJCBR)

2.Charumathi, B. (2012)" On the Determinants of profitability of Indian Life Insurers-An Empirical Study" proceedings of the world congress on Engineering, London, U.K.

3. Bawa, SumninderKaur and Chattha, Samiya (2013)," Financial Performance of Life Insurers in Indian Insurance Industry", Pacific Business Review International, volume 6.

4.Agarwal, Shilpa and Mishra, A.K. (2017)," Life Insurance Industry of India - Past, Present & Future", SSRG International Journal of Economics and Management Studies (SSRG – IJEMS) – Volume 4

5.Supriyaa (2018), "Evaluation of Financial Performance of Life Insurers in India", JIGNASA International Journal of Commerce & Management

6.Dhar, Pranab (2018)**,**" Growth of Life Insurance Business in India: A Study", International Journal of Applied Science and Engineering

7.Annual Reports of different years of the sample companies.

8.Annual Reports of different years of Insurance Regulatory and Development Authority of India (IRDAI), Available: www.irdaindia.org.

9.Gaur A. S. & Gaur S. S., Statistical Methods for Practice and Research, Sage Publications India Pvt. Ltd., New Delhi-110 017

10.Nag N.K. & Nag S.K., Mathematics & Statistics, Kalyani Publishers, Ludhiana-141 008

11.Srivastava S.C. & Srivastava Smt. Sangya, Fundamentals of Statistics, Anmol Publications Pvt. Ltd., New Delhi – 110 002