EVALUATION OF OPERATIONAL EFFICIENCY OF SELECTED PUBLIC AND PRIVATE LIFE INSURERS IN INDIA

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ABSTRACT

The insurance companies were non-banking financial intermediaries. The insurance sector was the major component of the financial system as it supports the different sectors of the economy. India has allowed private companies in life insurance sector after the liberalization in 2000. So, an attempt has been made to analyze the operational efficiency of the selected public and private life insurance companies in India for 12 years from 2010-2011 to 2021-2022 using secondary data to know their efficiency level in the highly competitive and growing market. The tools like ratio analysis, mean, CV, CAGR and chi-square test has been used. The result shows that LIC, SBI and Max life insurance companies have performed well compared to others. So, the study has concluded that overall efficiency of the selected public and private life insurance companies have been efficient and their ratios were maintained according to the IRDA rules and regulations.

INTRODUCTION

Insurance was a form of risk management used primarily to protect against the risk of unexpected losses. It was a contract by which an individual or a company demands financial protection from a company in compensation for losses (large or small) from the insurance company caused to property. An insurance policy was a contract between an individual (Policyholder) and an insurance company (Provider). Under the contract, policy holders pay regular amounts of money as premiums to the insurer, and they pay you the sum assured on unfortunate event arises like death, accident, or on the maturity of policy etc... The insurance companies were non-banking financial intermediaries. The insurance sector was the major component of the financial system as it supports the different sectors of the economy[1]. The Indian Insurance Sector was

basically divided into two categories; Life Insurance and Non-life Insurance. Both the Life Insurance and the Non-life Insurance was governed by the IRDAI (Insurance Regulatory and Development Authority of India). The Insurance sector in India consists of total 57 insurance companies. Out of which 24 companies were the life insurance providers and the remaining 33 were non-life insurers.

SECTORAL BACKGROUND

The Indian Life Insurance Companies Act of 1912 was the first statutory body to regulate life insurance business in the country. The Finance Minister C. D. Deshmukh announced the nationalization of the life insurance business on January 19, 1956 and in the same year; the Life Insurance Corporation (LIC) Company came into effect and emerged as a monopoly in India. Subsequently, the LIC absorbed 154 Indian insurers, 16 non-Indian insurers as well as 75 insurance companies, 245 Indian and foreign insurers in 1972. The General Insurance Corporation of India was incorporated in 1971 as a public company.

In 1993, the government set up a committee headed by RN Malhotra (former governor of the RBI) to come up with recommendations for the reform of the insurance sector in India. The objective of the committee was to complete the reforms carried out in the financial sector. The committee then presented its report in 1994, recommending that the private sector be allowed to enter the insurance industry. While the committee submitted its report in 1994, it took another six years before enabling legislation and it was passed in the year 2000. The report also indicates that the private sector would be allowed to enter the insurance industry. The report also said foreign companies could replace Indian floating companies, preferably a joint venture with Indian partners[2]. When, India allowed private companies in insurance sector in 2000 it has limited FDI to 26 per cent, which was raised to 49 per cent in 2014 and further increased to 74 per cent in May 2021.

Following the recommendations of the report of the Malhotra Committee of 1999, the IRDA (Insurance Regulatory and Development Authority) was created. It is an autonomous body responsible for the regulation and development of the insurance industry in India. In April 2000, IRDA was incorporated as a public company. IRDA's main objectives include promoting competition in the insurance industry to improve customer satisfaction through increased consumer choice and reduced premiums. IRDA also guarantees the financial security of the insurance market. The IRDA has the power to make regulations under Section 114A of the Insurance Act 1938. Since 2000, it has drafted various regulations relating to the registration of companies for the conduct of insurance business, the protection of the interests of policyholders, etc. and was growing at a faster rate of 15-20 per cent. Along with banking services, insurance contributes about 7 per cent of the country's GDP. Premium from India's life insurance industry was expected to reach rupees ₹24 lakh crore by financial year 2031[3]. The insurance sector provides long-term funds for infrastructure expansion and strengthens the country's risk-bearing capacity. Therefore, a well-developed and sophisticated insurance industry plays an important role in economic development.

JUSTIFICATION FOR THE STUDY

Nowadays, Life insurance plans were necessary for individuals. It serves as a protection cover to safeguard the beneficiaries of the insured. Future is uncertain and unpredictable so buying life insurance was one of the most important financial decisions. In Indian economy insurance company was a strong pillar and also an integral part in the financial market. Operational efficiency has been essential for the growth of any business. Many insurance companies were striving to improve their operational efficiency and increase their market share. To maximize stakeholder value and protect policyholders, insurers must simultaneously improve operational efficiency while seeking new avenues for profitable growth. So, an attempt has been made to analyze the operational efficiency in the selected life insurance companies to know their efficiency level in the highly competitive and growing market.

OPERATIONAL EFFICIENCY METRICS

Efficiency gives an overall view of the company's performance and operational capacity. By evaluating and analysing the efficiency of insurance companies, one can understand the current situation of the insurance industry in the country and take necessary actions based on the results and information of the analysis. Operational Efficiency also helps to identify the inefficient and efficient insurers in the market to improve competition, profitability and policy holder's confidence and improve the efficiency of the life insurer. Hence, in this study to evaluate the operational efficiency, ratio analysis has been used. The following metrics were used to measure the operational efficiency of the life insurance companies in India.

Table 1

OPERATIONAL EFFICIENCY METRICS

S.NO.	OPERATIONAL EFFICIENCY METRICS	FORMULAS
1.	Underwriting Risk	Benefits Paid / Net Premium
2.	Retention Ratio	Net Premium / Gross premium.
3.	Ratio of Operating Expenses to Net Premium	Operating Expenses / Net Premium
4.	Expense Ratio	Total Expenses / Net Premium
5.	Ratio of Investment Income to Investment Assets	Investment Income / Investment Assets
6.	Market Share Based on Total Premium	Total Premium
7.	Operating Ratio	Profit before tax / Net premium
8.	Net Earnings Ratio	Net Profit after tax / Net written Premium
9.	Expense of Management Ratio	Expense of Management / Gross Premium

Source: Computed.

METHODOLOGY

For the purpose of this study, the secondary data of Life Insurance Corporation of India, SBI Life Insurance Company, ICICI Prudential Life Insurance Company, HDFC Life Insurance Company, Max Life

Insurance Company and Bajaj Allianz Life Insurance Company for the period of 12 years from 2010-2011 to 2021-2022 has been collected by annual reports of the respective selected public and private life insurance companies in India. Out of 24 life insurance companies the top six market share holders during 2019 based on total premium of the life insurance industry have been selected for this study. In that LIC was a public life insurance company and other five were private life insurance companies

HYPOTHESES FOR TREND ANALYSIS

The following hypothesis was framed and tested in this study.

1. **There is no significant difference between the actual values and the trend values of operational efficiency ratios during different years in the selected public and private life insurance companies in India.**

ANALYSIS AND RESULTS

Table 1 shows a fluctuating trend in the operational efficiency of the selected public and private life insurance companies in India. It also shows the coefficient value, compound annual growth rate, trend equations and chi-square value. The mean value of all operational efficiency ratios varies from one company to another. The coefficient value for all the companies indicates that highly fluctuating in trend for almost all the metrics of operational efficiency.

UNDERWRITING RISK

Underwriting risk depends on the risk tolerance of the life insurer. If the company has paid fewer amounts for claims than receiving the premiums means the company has maintain a good standard of underwriting risk ratio. It was observed from the Table 2 that LIC has a mean value of 0.64 and in private insurance companies the highest mean value was Bajaj which was 0.90. Compound Annual Growth rate has a positive growth trend and the null hypothesis have been accepted during the study period. Thus, the selected public and private life insurance companies in India shows that all the insurance companies have a stable performance by paying their claims within the amount of premium received.

RETENTION RATIO

Retention ratio refers to the percentage of net income that was retained to help the business grow, rather than paid out as a dividend. In general, retention ratio of 90 per cent or more is considered good. It was observed from the Table 2 that in public insurance company LIC has a mean value of 1.00 and in private insurance company; all the selected companies have mean value of 0.99. Compound Annual Growth rate for LIC, SBI and HDFC have a stable growth trend and ICICI, Max and Bajaj have maintained their retention ratio even though there was a slight decrease in their ratio during the study period. Thus, the selected public and private life insurance companies in India show that they have a stable performance by maintaining their retention ratio above 90 per cent during the study period.

RATIO OF OPERATING EXPENSE TO NET PREMIUM

Ratio of operating expense to net premium was calculated by dividing the costs of operating the business by the net premium earned. The ideal operating expense ratio shall be between 60 per cent and 80 per cent, the lower the better. Table 2 shows that LIC has a mean value of 0.09 and in private life insurance company the highest mean value was Bajaj (0.19) and the least mean value was SBI (0.08) during the study period. Compound Annual Growth rate in LIC and Bajaj have a positive growth trend and all other insurance companies show a negative growth trend during the study period. LIC was monopoly player for long period so they had a constant trend. But Max has good performance in private companies because it has been reducing the operating expenses gradually over the years.

EXPENSES RATIO

Expenses ratio was an important factor in measuring the efficiency and profitability of the insurance company. Table 2 shows that public life insurance company LIC has a mean value of 1.6 and the least mean value was Max (1.24). Compound Annual Growth rate was positive trend during the study period. A lower expense ratio may increase your returns and a higher expense ratio may decrease them. In that Max has a better performance than other insurance companies with the lowest average ratio.

RATIO OF INVESTMENT INCOME TO INVESTMENT ASSETS

Investment income to Investment assets ratio reflects the income generated by the investments. It was observed from the Table 2 that the average investment income to investment assets ratio remains constant at mean value of 0.08 for all the companies expect for Max which was 0.07 during the study period. Compound Annual Growth rate of investment income to investment assets ratio for SBI, Max, HDFC, ICICI have positive growth rate whereas Bajaj and LIC have a negative growth trend. SBI has a better performance among others with high growth rate indicating high returns on investment.

MARKET SHARE BASED ON TOTAL PREMIUM

The market leader in an industry is the company that has the largest market share. In this study Market share was considered based on the proportion of total premium. Table 2 shows that the mean value of LIC was 69.5 and in private life insurance company, the highest mean value was SBI (5.41) and the least mean value was Bajaj (2.04). Compound Annual Growth rate for HDFC, SBI and Max have positive growth rate while LIC, ICICI, Bajaj have negative growth trend during the study period so it has to concentrate in increasing their share to maintain their position in industry as the competition were high in nature. LIC market share has started to reduce after privatization but even today it has the major market share.

OPERATING RATIO

Operating ratio measures the profit before tax of the insurer to net premium. A lower operating ratio is better. Table 2 shows that in public life insurance company LIC has a mean value of 0.01 and in private life insurance company the highest mean value was Bajaj (0.13) and the least mean value was HDFC (0.03) during the study period. Compound Annual Growth rate Max, ICICI and Bajaj have negative growth trend

during the study period. The overall performance in maximizing their operational efficiency was good for all the selected public and private life insurance companies in India.

NET EARNINGS RATIO

Net earnings ratio was calculated by dividing the net earnings after tax by the net premium written. Table 2 shows that in public life insurance company LIC has a mean value of 0.01. In private life insurance company, the highest mean value was Bajaj (0.11) followed by ICICI (0.07), SBI and Max (0.05) and the least mean value was HDFC (0.04) during the study period. Compound Annual Growth rate for Max, ICICI and Bajaj have negative growth trend during the study period which shows that they have to concentrate on increasing their profit.

EXPENSE OF MANAGEMENT RATIO

An expense of management ratio was calculated by dividing management expenses and gross premium. Insurance law says that expenses of management mean any expense incurred directly or indirectly related to business. Table 2 shows that the mean value of public life insurance company LIC has 0.15 whereas in private life insurance company, the highest mean value was Max (0.24) and the least mean value was SBI (0.12) during the study period. Compound annual growth rate of expenses of management ratio for LIC has an even trend and Bajaj (0.37 per cent) with positive growth rate whereas ICICI, HDFC, SBI and Max have negative growth trend during the study period. The private companies have entered the field only after 2000 so their ratio was high earlier but the negative trend expect Bajaj proves that they were stabilizing their place in market as well as expenses.

CONCLUSION

The calculated value of chi-square was less than the table value of chi-square (19.7) for all the operational efficiency ratios of the selected public and private life insurance companies in India. Hence, the null hypotheses have been accepted and it was concluded that there was no significant difference between the actual and trend values for all the operational efficiency ratios during the study period. This study concludes that the LIC has stable trend because it was a monopoly company for long period and now it is enjoying the benefits, whereas the private companies have entered the market only after 2000's so they were struggling to increase their efficiency. But between the private companies SBI and Max have better performance among all the operational efficiency ratio has maintained the authorized limit given by the IRDA Act.

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Table 2: OPERATIONAL EFFICIENCY RATIOS

NAME OF THE COMPANY	STATISTICAL MEASURES						
	MEAN	SD	CV	CAGR (%)	TREND EQUATION	CHI-SQUARE VALUE	H₀ ACCEPTED /REJECTED
1. UNDERWRITING RISK							
LIC	0.64	0.09	0.14	3.49	$YC = 0.53 + 0.02\ t$	0.06	Accepted
SBI	0.51	0.17	0.33	7.2	$YC = 0.52\ -0.003\ t$	0.58	Accepted
ICICI	0.7	0.16	0.23	2.57	$YC = 0.78 - 0.01\ t$	0.37	Accepted
HDFC	0.48	0.11	0.24	6.22	$YC =0.30 + 0.03\ t$	0.07	Accepted
MAX	0.37	0.06	0.18	5.54	$YC = 0.29 +0.01\ t$	0.08	Accepted
BAJAJ	0.9	0.35	0.39	0.47	$YC = 1.16 - 0.04\ t$	1.16	Accepted
2. RETENTION RATIO							
LIC	1	0	0	0	$Y_C = 1 + 0\ t$	0	Accepted
SBI	0.99	0	0	0	$Y_C = 0.99 - 0.0002t$	0.0001	Accepted
ICICI	0.99	0.01	0.01	-0.25	$Y_C = 0.99 - 0.002\ t$	0.0002	Accepted
HDFC	0.99	0	0	0	$Y_C =0.99 - 0.0001\ t$	0.0001	Accepted
MAX	0.99	0	0	-0.08	$Y_C = 0.99 - 0.0003t$	0.0001	Accepted
BAJAJ	0.99	0	0	-0.08	$Y_C = 0.99 - 0.0003t$	0.0001	Accepted
3. RATIO OF OPERATING EXPENSES TO NET PREMIUM							
LIC	0.09	0.01	0.08	0.99	$Y_C = 0.08 + 0.001\ t$	0.01	Accepted
SBI	0.08	0.02	0.26	-2.76	$Y_C = 0.1\ -0.004\ t$	0.02	Accepted
ICICI	0.11	0.03	0.24	-1.51	$Y_C = 0.14\ -0.005\ t$	0.02	Accepted
HDFC	0.13	0.02	0.13	-2.86	$Y_C =0.13 - 0.001\ t$	0.02	Accepted

MAX	0.16	0.04	0.22	-4.72	$Y_C = 0.21 - 0.008\ t$	0.03	Accepted
BAJAJ	0.19	0.02	0.13	0.48	$Y_C = 0.99 - 0.0003t$	0.02	Accepted
4. EXPENSES RATIO							
LIC	1.6	0.09	0.05	1.07	$Y_C = 1.48 + 0.02\ t$	0.02	Accepted
SBI	1.35	0.22	0.17	1.16	$Y_C = 1.29 + 0.009\ t$	0.40	Accepted
ICICI	1.45	0.49	0.34	2.08	$Y_C = 1.27 + 0.03t$	1.74	Accepted
HDFC	1.33	0.29	0.22	1.07	$Y_C = 1.19 + 0.02\ t$	0.65	Accepted
MAX	1.24	0.19	0.16	1.91	$Y_C = 1.03 + 0.03\ t$	0.21	Accepted
BAJAJ	1.47	0.41	0.28	1.01	$Y_C = 1.33 + 0.02\ t$	1.22	Accepted
5. RATIO OF INVESTMENT INCOME TO INVESTMENT ASSETS							
LIC	0.08	0.01	0.1	-1.11	$Y_C = 0.09 - 0.0008t$	0.01	Accepted
SBI	0.08	0.04	0.52	2.12	$Y_C = 0.07 + 0.002\ t$	0.25	Accepted
ICICI	0.08	0.08	0.98	0.88	$Y_C = 0.07 + 0.002\ t$	0.85	Accepted
HDFC	0.08	0.06	0.77	0.99	$Y_C = 0.06 + 0.003\ t$	0.53	Accepted
MAX	0.07	0.04	0.48	1.12	$Y_C = 0.06 + 0.002t$	0.17	Accepted
BAJAJ	0.08	0.06	0.69	-0.87	$Y_C = 0.53 + 0.02\ t$	5.89	Accepted
6. MARKET SHARE BASED ON TOTAL PREMIUM							
LIC	69.5	4.07	0.06	-1.01	$Y_C = 75.15 - 0.87t$	1.05	Accepted
SBI	5.41	1.72	0.32	5.54	$Y_C = 2.68 + 0.42\ t$	1.69	Accepted
ICICI	5.32	0.67	0.13	-1.04	$Y_C = 4.82 + 0.07\ t$	0.79	Accepted
HDFC	4.78	1.1	0.23	6.58	$Y_C = 2.82 + 0.30\ t$	0.08	Accepted
MAX	2.59	0.36	0.14	4.15	$Y_C = 1.96 + 0.09\ t$	0.02	Accepted
BAJAJ	2.04	0.53	0.26	-2.86	$Y_C = 2.56 - 0.08\ t$	1.06	Accepted
7. OPERATING RATIO							
LIC	0.01	0	0.14	0	$Y_C = 0.01 + 0t$	0	Accepted
SBI	0.05	0.01	0.29	7.32	$Y_C = 0.05 - 0.00003t$	0.05	Accepted
ICICI	0.07	0.04	0.62	-7.35	$Y_C = 0.12 - 0.008t$	0.15	Accepted
HDFC	0.03	0.02	0.67	0	$Y_C = 0.03 + 0.0001t$	0.15	Accepted
MAX	0.05	0.02	0.37	-3.32	$Y_C = 0.07 - 0.003\ t$	0.04	Accepted
BAJAJ	0.13	0.06	0.47	-8.08	$Y_C = 0.21 - 0.01t$	0.10	Accepted
8. NET EARNINGS RATIO							
LIC	0.01	0	0.14	0	$Y_C = 0.01 + 0t$	0	Accepted
SBI	0.05	0.01	0.32	0	$Y_C = 0.05 - 0.001\ t$	0.03	Accepted
ICICI	0.07	0.04	0.53	-7.35	$Y_C = 0.12 - 0.007\ t$	0.08	Accepted

HDFC	0.04	0.02	0.67	0	$Y_C = 0.04 - 0.00004t$	0.16	Accepted
MAX	0.05	0.02	0.36	-3.32	$Y_C = 0.06 - 0.003t$	0.03	Accepted
BAJAJ	0.11	0.06	0.52	-13.24	$Y_C = 0.20 - 0.01t$	0.08	Accepted
9. EXPENSE OF MANAGEMENT RATIO							
LIC	0.15	0.01	0.05	0	$Y_C = 0.15 - 0.0006t$	0.01	Accepted
SBI	0.12	0.03	0.23	-2.37	$Y_C = 0.16 - 0.005t$	0.03	Accepted
ICICI	0.15	0.02	0.16	-0.57	$Y_C = 0.18 - 0.005t$	0.02	Accepted
HDFC	0.17	0.02	0.11	-2.62	$Y_C = 0.19 - 0.002t$	0.02	Accepted
MAX	0.24	0.05	0.19	-4.33	$Y_C = 0.32 - 0.01t$	0.02	Accepted
BAJAJ	0.22	0.02	0.09	0.37	$Y_C = 0.23 - 0.002t$	0.02	Accepted

Source: Computed from the Annual Reports of the respective companies.