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Research Article

Evaluating Financial Performance: A Comparative Analysis of Earnings and Profitability between LIC and Selected Private Life Insurers in India

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ARTICLE INFO	ABSTRACT

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Insurance plays a crucial role in mitigating risks for individuals and businesses. It provides a sense of security and helps them in facing life's uncertainties with confidence. The Life Insurers in India play a vital role as intermediaries in our economy, facilitating risk transfer, stimulating private investment, creating jobs, and supporting development projects. Life insurance has been a vital tool in managing risk for centuries. Even today many generations rely on life insurance products and this will also be the case in the future. The life insurance sector, marked by its diversity of products and services, has witnessed significant growth in recent years. However, these companies still face challenges such as intense competition, customer acquisition and retention, and sustaining profitable growth. The life insurance companies are struggling to sustain the profitable growth. To thrive in a competitive global market, these companies must remain profitable. Profitability is essential to attract external capital and achieve their long-term goals. An understanding of the performance of the life insurers is necessary for different stakeholders for taking key decisions. This study aids marketers, academicians, and policymakers in evaluating the performance of life insurers for taking critical decisions.

This study is primarily focused on measuring the performance in earnings and profitability of the selected private life insurers and the sole public company LIC over a period of ten years, from 2013 to 2022. Key factors considered include operating and commission expenses to net premium ratio, investment income to investment assets ratio, return on equity ratio (ROE), and return on assets ratio (ROA). Simple statistical tools like mean, standard deviation, and Mann Whitney U test were employed. The analysis highlights that the performance of the LIC has been superior to that of private life insurers in the expense-to-net premium ratio and ROE. On the other hand, private life insurers outperform the LIC in the investment income to investment assets ratio and ROA ratio.

Keywords: Life Insurance, ROE, ROA, Operating and Commission Expenses, Net Premium, Investment Income, Investment Assets.

INTRODUCTION

The Indian life insurance industry is one among the world's largest insurance industries. In 2018, India ranked tenth in the global life insurance market, holding a 2.61% market share. It has a great potential for future growth. To boost life insurance penetration and density, particularly in rural areas, the sector was nationalized in 1956 with the creation of the LIC. This move consolidated 156 Indian insurers, 16 foreign insurers, and 75 provident societies into a unified entity. LIC held a monopoly in the life insurance market until the late 1990s. The Indian economic reforms in 1991, followed by Malhotra committee recommendations in 1993, opened up the life insurance sector to private players in 2000 following the enactment of the IRDA Act. The Insurance Regulatory and Development Authority (IRDA) was established as an autonomous statutory body in April 2000 to regulate, promote, and ensure the structured growth of the insurance industry. Currently, India's life insurance sector comprises 26 players.

REVIEW OF LITERATURE

Zimik et al. [1] study examines factors affecting the financial success of public and private life insurers in India. It considers traditional financial metrics and non-monetary indicators like growth, client-centric approaches, social value, and external factors. The research covers ten insurers, including LIC and nine commercial firms, from 2015-16 to 2019-20, using data from secondary sources. Descriptive statistics, multiple linear regression, and correlation analyses assess the impact of liquidity, leverage, solvency, and workforce size on financial performance. Results show significant differences in Return on Equity and Expense Ratio between public and private insurers, while Return on Assets shows no significant difference. The study emphasizes the importance of liquidity and workforce size for profitability, offering insights for industry practitioners and regulators.

Mungule et al. [3] conducted a comprehensive investigation to evaluate the factors influencing the financial performance of insurers in Zambia and their effects. Using a mixed-method approach and data from 150 respondents representing 10 insurance companies, the study identified critical factors such as underwriting risk, premium growth, liquidity, company size, inflation and GDP. Recommendations include maintaining asset-liquidity balance, enhancing managerial skills, cautious leveraging, and effective risk management practices, including reinsurance strategies.

According to Rohilla et al. [4] the insurance sector's financial stability is vital for a nation's economic health. The Indian insurance industry, crucial for risk mitigation and savings mobilization, has seen significant growth recently. This expansion is driven by customer-centric approaches and transparent financial reporting. Regulatory changes have highlighted the need to assess insurers' financial solvency and operational efficiency. This study examines the financial performance of six leading life insurers in India using the CARAMEL approach and two-tailed analysis.

Vasić et al. [5] employed PCA to identify the most representative financial ratios for Serbia's non-life insurance sector. The aim is to reduce a large number of financial indicators to a smaller, more manageable set that still effectively evaluates these companies' financial position and performance. The results provide a streamlined approach for conducting efficient financial analysis of individual insurers and Serbia's broader non-life insurance sector.

Ketankumar G Sumesara [6] aimed to analyse and compare the financial soundness and efficiency of the Indian General Insurance Company and the Bajaj Allianz General Insurance co. ltd. They used CARAMEL Framework and Independent Samples T-test as a statistical tool to compare the financial efficiency between the companies. The results showed that the companies performed and reacted differently to economic challenges and risks, influencing their financial ratios and contributing to intense competition within the insurance industry.

Rathi and Jatav [8] study examines the financial performance of public sector non-life insurers in India following liberalization, which has driven economic development. The study compares 2009-2010 to 2018-2019 performance using seventeen public disclosure analytical ratios. The researchers employed ratio analysis along with statistical tools such as ANOVA, Welch, Jarque-Bera, Levene, and Bartlett tests. Findings indicate no significant differences in mean ratios among the companies.

Jansirani P. and A. Muthusamy [9] attempted to study the financial performance of public sector non-life insurers during five years from 2012-13 to 2016-17 using CARAMEL model. The results of this paper concluded that the non-life insurers prioritize building their asset base over equity share capital and have shown good progressive risk retention ratio and a downward trend in the management of operating expenses during the research period.

Kamaleshwar Rao S and K. Hanumantha Rao [10] studied the financial performance of three life insurers from India namely LIC of India, SBI Life and ICICI Prudential Life using ratios in CARAMEL approach and One Way ANOVA. Their study relies on secondary data extracted from the annual reports of the selected companies covering a ten-year period from 2009 to 2018. The results indicated a significant difference in CARAMEL indicators during the study period at 5% significance level. The hypotheses were rejected, concluding that all CARAMEL indicators showed significant variation among the selected insurers. Additionally, it was observed that premium income was the primary revenue source for all insurers, with SBI and ICICI showing strong underwriting capacities.

R. Radhika and Ramesh Kumar Satuluri [11] focused on the key indicators which influenced the operations of life insurers and also studied the factors that influenced ROI. The paper says that, on the investment front, profitability of the life insurer's largely depends on their Assets under management. Technological disruptions, Intelligence and IOT are transforming various functions within insurance companies. Investing in digital and Robotic underwriting will save huge money for companies. Companies use technology to bring in efficiency and scalability in operations, thus leading to an increase in the ROI for the investors.

Batool Anand and Sahi [12] examined the financial performance factors of insurance companies in the USA and UK, using data from 24 firms (12 from each country) spanning 2006-07 to 2015-16. Internal factors like firm size, leverage, and asset turnover were analyzed alongside external factors such as GDP, CPI, interest rate, and WTI crude oil. ROA and ROE served as profitability indicators. Results showed favorable associations for internal factors like firm size, leverage, and asset turnover with ROA and ROE in USA companies, while external factors like GDP and WTI oil also showed favorable associations. In UK companies, liquidity and GDP were positively associated with ROA and ROE.

Chandan [13] aimed to study the expansion of the Indian life insurance industry after the entry of private insurers as a result of reforms. Their study showed that the private sector showed higher growth in total premium compared to public sector, while both sectors showed a decline in the number of policies issued during the study period. Additionally, the life insurance industry expanded its reach to regions beyond metropolitan and urban areas.

Anoop Kumar Singh and Sumbul Fatima [14] had studied the growth and performance of ICICI Prudential Life using key parameters such as net profit, net premium, and branch network. The study also employed the CARAMEL metrics to analyse the company's capital to total assets ratio, net premium to gross premium ratio, which were statistically tested using a one-sample t-test. The findings indicated that the company's performance was satisfactory, with a consistent increase in net profits. However, the CARAMEL model highlighted the need for the insurer to strengthen its capital base relative to total assets, reduce operating expenses, and maintain sufficient liquid assets to meet current liabilities. The t-test results further revealed significant differences in the company's performance.

Shilpa Agarwal and A. K. Mishra [15] examined the LIC's performance in both the pre- and post-liberalization eras. They projected its future business trends amidst intense competition. Their analysis revealed that LIC has been experiencing growth in its business, indicating significant potential for further expansion in the life insurance sector.

Chakraborty [16] conducted a study that assessed the performance of 15 life insurance companies in India from the fiscal years 2006-07 to 2015-16. The research utilized 'Investments' as the input variable and 'Gross Premiums Written' as the output variable, assuming an input-output framework to measure performance. The study applied non-parametric tests, specifically the Kruskal-Wallis and Mann-Whitney tests, to analyze the non-normal data from this period. The findings reveal significant performance variations between public and private life insurance firms, with the Life Insurance Corporation of India (LICI), a state-owned entity, continuing to lead even after the sector's privatization.

Monteiro and John [17] evaluated the financial performance of general insurance companies in India, highlighting changes in the sector since liberalization, which have stimulated economic development. The study analyzes income and expenses to gauge operating efficiency using data from secondary sources spanning from 2006-07 to 2015-16. Methods include ratio analysis, correlation, multiple regression analysis, and descriptive statistics. Findings indicate that public insurance companies exhibit better management soundness and profitability than their private counterparts. Factors like commission expenses, operating expenses, investment income, and net premium do not significantly impact net profit.

Showket Ahmad Dar and Javaid Ahmad Bhat [18] assessed the financial soundness and performance of selected life insurers using three parameters from the CARAMEL model: Capital Adequacy, Earnings and Profitability, and Liquidity. The study developed three hypotheses to achieve its objectives. The findings revealed statistically significant differences among the selected insurers in these parameters. Overall, the results indicated that private life insurers demonstrated stronger capital adequacy, whereas public life insurers outperformed their private counterparts in earnings and profitability during the study period.

Oscar Akotey et al. [19] conducted an in-depth analysis to identify the key factors influencing profitability within life insurance sector of Ghana. By examining the annual financial statements of ten life insurance firms over an 11-year period from 1999-2000 to 2009-10, the study employed panel regression techniques for the analysis. The findings indicated that gross written premiums had a positive correlation with insurers' profit performance, whereas their relationship with investment income was found to be negative. Additionally, the study highlighted that excessive trading and price reductions had significantly harmed the financial health of life insurers.

Valeed A. Ansari and Wubshet Fola [20] examined the financial performance of Indian life insurers using regulatory and supervisory standards. The study evaluated seven registered life insurers over a five-year period (2008-09 to 2012-13) using the CARAMEL approach. The findings highlighted significant differences between public and private life insurers in all CARAMEL dimensions except re-insurance.

Sumninder Kaur Bawa and Samiya Chattha [21] evaluated the financial performance of Indian life insurers across various parameters. They analyzed the impact of factors such as size, equity, liquidity, and leverage on the profitability of life insurers using a multiple linear regression model. The results indicated that profitability is positively influenced by liquidity and size, negatively impacted by equity capital, and has no significant correlation with leverage.

T. Hymavathi Kumari [22] examined the financial performance of public and private life insurers using parameters such as the number of offices, insurance penetration and density, and growth in premium income. Various financial ratios were employed to evaluate performance. The findings revealed that the overall business performance of the Indian life insurance industry has significantly improved following privatization.

The above research papers mainly focused on studying the performance and growth of life insurance industry in the post-liberalisation era, assessing the non-life public and private sector insurance companies' financial performance with a comparative outlook during different periods. Few papers have focused on life insurers' financial performance using a few dimensions of the CARAMEL model way-back. In the light of severe competition, widening of the life insurance market, and the different challenges faced by the life insurers currently, there is a need to conduct new research on the profitability performance of life insurers. Hence an attempt is made in this paper to assess the LIC's earnings and profitability performance against the performance of seven selected private life insurers in India from 2012-13 to 2021-22.

1. OBJECTIVES

The objectives of this research paper are

- To measure the earnings and profitability performance of the sole public life insurer LIC and the selected private life insurers of India.
- To conduct a comparative statistical analysis of the earnings and profitability soundness of public and selected private life insurers.

HYPOTHESIS FRAMED FOR TESTING

H0: There is no statistically significant difference in the earnings and profitability soundness between private life insurers and LIC of India.

H1: There is a statistically significant difference in the earnings and profitability soundness between private life insurers and LIC of India.

2. METHODOLOGY OF THE STUDY

The methodology employed in this study involves a non-probability sampling (Utilizing purposive sampling) method [2] to select a total of 8 life insurers. The first 8 companies based on total premiums collected during the years 2020-21 and 2021-22 are selected for the study. In addition to total premiums, profits made by the companies are also considered for selection. Thus the following eight companies shown in table 1 are studied in this paper:

TABLE 1- SELECTED LIFE INSURERS

S.No	Insurers Name	Total Premium (Rs in Crore)		Profits (Rs in crore)	
		2020-21	2021-22	2020-21	2021-22
1	Life Insurance Corporation of India	40328655	42802497	290057	404312
2	SBI Life Insurance Co. Ltd	5025417	5875964	145585	150600
3	HDFC Standard Life Insurance Co. Ltd	3858349	4596283	136010	120769
4	ICICI Prudential Life Insurance Co. Ltd	3573282	3745799	96016	75413
5	Max Life Insurance Co. Ltd	1901790	2241417	52299	38666
6	Bajaj Allianz Life Insurance Co. Ltd	1202484	1612705	58025	32441
7	Tata AIA Life Insurance Co. Ltd.	1110509	1444503	4711	7072

8	Kotak Mahindra Old Mutual Life Insurance Co. Ltd.	1110022	1301511	69193	42539
[24] Source: IRDA Annual Report 2020-21and 2021-22					

The following ratios are used to measure the earnings and profitability soundness of selected life insurers in India [7].

1) Expense Ratio (Operating Expenses/Net Premium)

2) Investment Income to Investment Assets Ratio

3) ROE (Profit/Share Capital)

4) ROA (Net Profit/Total Assets)

MEASURING EARNINGS AND PROFITABILITY SOUNDNESS

The earnings and profitability levels of a company signify its strength and sustainability in the market. This analysis indicates the company's ability to generate earnings, thereby showing its profitability position in the market. It reflects the management's efficiency in generating profits from the capital invested in the company. Low profitability can indicate significant issues for the insurer and serve as an early warning sign of potential solvency problems [23]. Hence, this paper focuses on this critical aspect. The selected companies in the industry are compared and judged on their profitability position using certain parameters. The authors have selected four ratios to evaluate the profitability, out of numerous ratios proposed in the IMF working paper [23]. The four ratios selected are expense to net premium ratio, ROE, ROA, and investment income to investment assets ratio.

RATIO OF EXPENSE TO NET PREMIUM

The expense ratio indicates the efficiency of an organization in generating net premiums. The expenses of life insurance companies are ruled by Sec 40B of the Insurance Act 1938, which says that no life insurer can exceed the expense limits prescribed annually in Rule 17D of the Insurance Rules, 1939. This rule says the expenses should be determined based on the size, age, and business segment. A lower expense ratio signifies higher profitability, reflecting the management's operational efficiency. The ratio is calculated by dividing the insurer’s expenses by net premiums. For this study, expenses include the insurer's operating and commission costs, while net premium is derived by subtracting reinsurance ceded and adding reinsurance accepted from the gross premium. A lower expense ratio is preferred, as it indicates better profit margins and a stronger financial position for the company. Table 2 below shows the expenses to net premium ratio of public and private sector life insurers.

TABLE 2 - EXPENSES RATIO (OPERATING AND COMMISSION EXPENSES TO NET PREMIUM)

Insurer	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
BAlinz	0.2752	0.2588	0.2233	0.2171	0.1965	0.1877	0.2114	0.2255	0.2102	0.2325
BirlaSun	0.289	0.2482	0.2178	0.2074	0.1852	0.1898	0.2084	0.2226	0.2086	0.1819
HDFC	0.1762	0.1499	0.1431	0.1591	0.1648	0.1812	0.1705	0.1787	0.1652	0.1664
ICICI	0.2084	0.1827	0.1455	0.132	0.1406	0.1281	0.1359	0.1348	0.1198	0.1472
KOTAK	0.2536	0.2592	0.2854	0.2689	0.2473	0.2289	0.2241	0.197	0.1853	0.1752
MAX	0.2805	0.2616	0.2456	0.2266	0.2367	0.2022	0.2023	0.2108	0.2096	0.2011

SBI	0.1601	0.1557	0.1392	0.1387	0.1165	0.1129	0.1055	0.1001	0.0842	0.0878
LIC	0.1509	0.1708	0.1565	0.1434	0.1517	0.1522	0.1438	0.1467	0.1419	0.1452
Pvt-Avg	0.2347	0.2166	0.2	0.1928	0.1839	0.1758	0.1797	0.1814	0.169	0.1703
Ind-Avg	0.2242	0.2109	0.1945	0.1866	0.1799	0.1729	0.1752	0.177	0.1656	0.1672
[24] Source: Calculated from IRDA and various annual issues of the selected life insurers										

RATIO OF INVESTMENT INCOME TO INVESTMENT ASSETS

Income from investments is a key source of revenue for the insurers. The ratio of investment income to investment assets serves as an indicator of the effectiveness of the insurer's investment policy. This ratio shows the rate of return generated from the company's investments. The ratio is calculated by dividing investment income by investment assets. Here investment assets refer to all investments made from shareholders' funds, policyholders' funds, and policyholders' reserves. Therefore, investment income includes the earnings on investments from both policyholders' and shareholders' funds. A higher ratio is preferred, as it signifies good returns on investments. Table 3 below shows the ratio of investment income to investment assets of public and private life insurers.

TABLE 3 – INVESTMENT INCOME TO INVESTMENT ASSETS

Insurer	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
BAlinz	0.1313	0.1132	0.0975	0.0983	0.0914	0.0869	0.086	0.0822	0.0701	0.0678
BirlaSun	0.3356	0.3102	0.2592	0.237	0.1993	0.169	0.1502	0.139	0.1126	0.0989
HDFC	0.1514	0.1503	0.1361	0.1276	0.1121	0.1004	0.0962	0.0986	0.0838	0.0804
ICICI	0.1913	0.1781	0.1585	0.1516	0.1355	0.1275	0.1179	0.1205	0.0978	0.0961
KOTAK	0.2021	0.1824	0.14	0.1225	0.1133	0.0998	0.0941	0.0907	0.0848	0.0788
MAX	0.1041	0.0979	0.0907	0.0868	0.0818	0.0807	0.0785	0.0829	0.075	0.0734
SBI	0.1184	0.1162	0.1029	0.1061	0.1059	0.1086	0.1096	0.1169	0.1001	0.0963
LIC	0.0875	0.085	0.0807	0.0808	0.0733	0.0724	0.0719	0.0758	0.0672	0.0648
Pvt-Avg	0.1763	0.1641	0.1407	0.1328	0.1199	0.1104	0.1047	0.1044	0.0892	0.0846
Ind-Avg	0.1652	0.1542	0.1332	0.1263	0.1141	0.1057	0.1006	0.1008	0.0864	0.0821
[24] Source: Calculated from IRDA and various annual issues of the selected life insurers										

RETURN ON EQUITY

The ROE measures the management's ability to generate adequate returns on the equity portion of its investment. It shows how best the equity share capital is utilized in generating profits. A higher ROE indicates greater profitability and the potential for higher dividends for shareholders. The ratio is calculated by dividing net profit (after tax) by the equity share capital (the paid-up capital invested). Table 4 below shows the ROE of public and private life insurers.

RETURN ON ASSETS

The ROA indicates the company's ability to generate net profit through the use of its total assets. It is calculated by dividing net profit (after tax) by the company's total assets. Total assets refer to the total application of funds, excluding the debit balance in the profit and loss account. This ratio reflects the percentage of profit the company generates from its total assets, essentially showing how much profit is earned per rupee of assets. A higher ratio is preferred, as it indicates the company is efficiently utilizing its assets to generate higher profits. Table 5 below shows the ROA of public and private life insurers.

2022	2.153	0.067	0.572	0.525	0.834	0.202	1.505	0.639	0.837	0.812
2021	3.8501	0.056	0.673	0.6686	1.356	0.2726	1.4557	29.006	1.1903	4.6672
2020	2.9831	0.0549	0.6416	0.7443	1.1918	0.2811	1.4221	27.127	1.0456	4.3058
2019	3.33	0.066	0.633	0.794	0.994	0.29	1.327	26.89	1.062	4.29
2018	4.7516	0.0877	0.5513	1.1284	0.8101	0.275	1.1504	24.464	1.2507	4.1523
2017	5.5488	0.0646	0.4464	1.172	0.5943	0.3439	0.9546	22.317	1.3035	3.9303
2016	5.8322	0.0736	0.4102	1.1523	0.4914	0.2288	0.861	25.179	1.2928	4.2785
2015	5.8139	0.1501	0.3938	1.1415	0.4485	0.2159	0.82	18.238	1.2834	3.4027
2014	6.7984	0.195	0.3636	1.0961	0.4686	0.2242	0.7401	16.567	1.4123	3.3066
2013	8.5306	0.2749	0.2263	1.0469	0.3718	0.2177	0.6222	14.376	1.6129	3.2083
Insurer	BAlinz	BirlaSun	HDFC	ICICI	KOTAK	MAX	SBI	LIC	Pvt-Avg	Ind-Avg

TABLE 4 - RETURN ON EQUITY

[24] Source: Calculated from IRDA and various annual issues of the selected life insurers

TABLE 5 - RETURN ON ASSETS (NET PROFIT TO TOTAL ASSETS RATIO)

Insurer	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
BAlinz	0.0335	0.0261	0.0201	0.0198	0.0169	0.0137	0.0087	0.0079	0.0078	0.0038
BirlaSun	0.0237	0.0149	0.0094	0.0045	0.0035	0.0044	0.003	0.0025	0.002	0.0021
HDFC	0.0112	0.0143	0.0117	0.0111	0.0098	0.0105	0.0102	0.0102	0.0079	0.0059
ICICI	0.0204	0.0197	0.0165	0.0161	0.0138	0.0117	0.0072	0.007	0.0045	0.0032
KOTAK	0.0174	0.0198	0.0151	0.015	0.0146	0.0166	0.0167	0.0175	0.015	0.0077
MAX	0.0209	0.0176	0.0132	0.0122	0.0148	0.0099	0.0088	0.0077	0.0057	0.0036
SBI	0.0119	0.0125	0.0114	0.0107	0.0096	0.0097	0.0093	0.0087	0.0065	0.0056

LIC	0.0009	0.001	0.0009	0.0012	0.0009	0.0009	0.0009	0.0009	0.0008	0.001
Pvt-Avg	0.0199	0.0179	0.0139	0.0128	0.0118	0.0109	0.0091	0.0088	0.0071	0.0045
Ind-Avg	0.0175	0.0157	0.0123	0.0113	0.0105	0.0097	0.0081	0.0078	0.0063	0.0041
[24] Source: Calculated from IRDA and various annual issues of the selected life insurers										

3. RESULTS AND DISCUSSION

EXPENSE TO NET PREMIUM RATIO

It can be observed from Table 2 that the public sector company LIC had a relatively stable ratio during the study period, ranging from 0.1434 to 0.1708, indicating efficient expense management to net premium. In the private sector, SBI had shown lower ratios with decreasing trend from 0.1601 in 2012-13 to 0.0848 in 2020-21, with a small hike in 2021-22 to 0.0878. It indicates that SBI has consistently controlled its expenses and has become cost-efficient. Bajaj Allianz, Max Life, Kotak, and Birla Sun Life's ratios fluctuated over the years, and they were generally higher than the private insurer's average, indicating higher operating cam commission expenses to net premium. HDFC and ICICI Prudential Life had some fluctuations but naturally had ratios close to the private insurer's average, suggesting consistent expense management. The average expense-to-net-premium ratio for both the life insurance industry and the private life insurance sector showed a decreasing trend throughout the study period, with some minor fluctuations. However, it can be concluded that LIC has been more efficient in managing its expenses, as its ratio is significantly better than both the private sector and industry averages.

INVESTMENT INCOME TO INVESTMENT ASSETS

It can be observed from Table 3, that the ratio of investment income to investment assets of LIC is low, with a declining trend ranging from 0.0875 in 2012-13 to 0.0648 in 2021-22, indicating a lower return on the investments. In the private sector, Birla Sun Life had higher ratios in the initial periods and gradually declined in the later periods. Its ratio ranged from 0.3356 to 0.0989, indicating a higher return on investments in the initial years followed by a decline in returns in the later years. However, it had the highest rate of return when compared to all the selected insurance players, as evidenced by its ratios. SBI showed a low yet relatively consistent and stable ratio during the entire study period, ranging from 0.0963 to 0.1184, indicating a steady investment return. ICICI had a ratio slightly higher than the private insurer's average, showing a higher rate of return on investments. Kotak, too, had a higher ratio in the initial period but later fell below the industry average, ranging from 0.2021 in 2012-13 to 0.0788 in 2021-22, indicating a decreased return on investments over the years. HDFC Life, Bajaj Allianz, and Max Life had ratios that declined over the years, and they were generally lower than the industry's average, indicating lower returns on investments. The private sector and life industry averages witnessed a declining trend, which meant that the companies had paid less importance to generate a good return on the investments that could be used to meet their expenses. However, the private sector's investment income on investment assets is better than the public sector insurer LIC as its ratios are above the public sector LIC's and industry's average.

RETURN ON EQUITY

It can be observed from Table 4, that the return on equity of LIC had been high and fluctuating over the years showing increasing profitability of the company. LIC’s ratio decreased in 2021-22 indicating a decrease in profitability to shareholder’s equity for that year. In the private sector SBI, Kotak and HDFC Standard Life’s ratios showed fluctuations with a general increasing trend in ROE, suggesting improving profitability. Max Life had a relatively stable but low ROE. Bajaj Allianz experienced a declining trend in ROE over the years, indicating decreasing profitability relative to shareholders equity. ICICI Prudential exhibited fluctuations with a general decreasing trend in ROE, suggesting decreasing profitability. Birla Sun Life had a very low and relatively stable ROE over the years. The performance of LIC is better than all the private life insurers except for the year 2021-22. LIC’s ratios are much greater than the private sector companies’ average plus the industry’s average, indicating strong profitability.

RETURN ON ASSETS

It can be observed from the Table 5, the return on assets of public sector Company LIC ranged from 0.0009 to 0.0012. The proportion of net profits generated out of the company's total assets had remained extremely low but almost stable over the period of the study. The ratio indicated that the company's assets had increased over the years than the net profits earned, which further implied that the company had focused more on strengthening its assets base than generating profits. However, the company had reported a positive return on assets ratio over the entire study period. In the private sector Balaj Allianz, Birla Sun Life, ICICI Prudential, Max Life and SBI had exhibited declining trend in their ROA, indicating a decreasing ability to generate profit from its total assets. HDFC and Kotal Life showed a relatively stable ROA with minor fluctuations. Overall private insurers' performance was comparatively better than the public sector company LIC, as their average ROA is higher than the industry average and much above the ROA of LIC, indicating that LIC's profitability position had weekend over the years. The decrease in LIC's profits may be attributed to a rise in its total expenses and carrying excess current assets.

STATISTICAL EVALUATION FOR EARNINGS AND PROFITABILITY INDICATORS

Table 6 below presents the descriptive statistics for earnings and profitability indicators of public and private life insurers.

TABLE 6 – DESCRIPTIVE STATISTICS

Sector		Expense to Net Premium Ratio	Investment Income to Investment Assets Ratio	ROE	ROA
Public	Minimum	0.1419	0.0648	0.639	0.0008
	Maximum	0.1708	0.0875	29.01	0.0012
	Mean	0.1503	0.0759	20.48	0.0009
	Deviation	0.0086	0.0074	8.50	0.0001
Private	Minimum	0.0842	0.0678	0.055	0.0020
	Maximum	0.289	0.3356	8.53	0.0335
	Mean	0.1904	0.1227	1.23	0.0117
	Deviation	0.0501	0.052	1.73	0.0062
Total	Minimum	0.0842	0.0648	0.055	0.0008
	Maximum	0.289	0.3356	29.01	0.0335
	Mean	0.1854	0.1169	3.64	0.0103
	Deviation	0.0488	0.0511	7.20	0.0068

The table shows that the mean value of ROE is higher for the public insurer LIC than the mean value of the private life insurer. In contrast, the mean value of expense to net premium ratio, investment income to investment assets, and ROA of LIC is less than that of the private life insurers. The mean for the public insurer LIC is 0.1503 (S.D. 0.0086), 0.0759 (S.D. 0.0074), 20.48 (S.D 8.50), and 0.0009 (S.D. 0.0001) against the mean for private life insurers which is 0.1904 (S.D. 0.0501), 0.1227 (S.D. 0.052), 1.23 (S.D. 1.73), and 0.0117 (S.D. 0.0062) for the respective ratios stated above. The mean values show that the performance of the private life insurers had been better than LIC in all the ratios except ROE. However, concerning the ROE ratio, LIC had much higher variation than private insurers, indicating that the performance of private insurers had been better compared to the public insurer LIC.

Table 7 below displays the test statistics for earnings and profitability indicators of public and private life insurers.

TABLE 7 – TEST STATISTIC

	Expense to Net Premium Ratio	Investment Income to Investment Assets Ratio	ROE	ROA
Mann-Whitney U	173	54.5	35.000	0.000
Wilcoxon W	228	109.5	720.000	55.000
Z	-2.5677	-4.2917	-4.580	-5.090
Asymp. Sig. (2-tailed)	0.0102	0.000	0.000	0.000

The result of the test statistic shows that the Mann-Whitney U test is 173.000 for the expense to net premium ratio, 54.500 for the investment income to investment assets ratio, 35.000 for ROE, and 0.000 for the ROA. The p-value at the 5 percent significance level, as shown in the table, is 0.0102 for expense to net premium ratio and 0.000 for investment income to investment assets, ROE, and ROA respectively. Thus, it is concluded that there exists a statistically significant difference between the mean earnings and profitability ratios of the public insurer LIC and private life insurers [18]. Therefore, the null hypothesis is rejected.

4. CONCLUSION

A strong financial performance is essential for the sustained growth and profitability of India's life insurance sector. By analyzing the financial performance of the life insurance players, stakeholders can gain valuable insights for informed decision-making and contribute to the industries and economies overall progress. This research paper focused on comparative earnings and profitability performance of eight selected life insurers for a ten-year period from 2012-13 to 2021-22. The comparative analysis revealed that the public life insurer performed better than private life insurers in Expense to Net premium and ROE dimensions. In contrast, private life insurers performed better than public life insurer in Investment Income to Investment Asset and ROA dimensions. The statistical results indicated that the null hypothesis is rejected, and the alternate hypothesis is accepted, revealing a significant difference in the companies' ratios. The comparative analysis further demonstrated that the two sectors respond and perform differently when addressing economic challenges and risks, leading to intense competition between them. The researcher had made some observations which need to be taken care of by life insurers. The public sector insurer LIC needs to focus on its relatively low return on assets, and its investment income. The private insurers need to concentrate more on their expenses.

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