Chapter II

Review of Literature

2.1 Introduction

A review literature is a systematic method for identifying, evaluating, and synthesizing the existing research work. It helps to identify the research gap available in existing literature in order to concentrate on the unexplored areas. The Present chapter has made an attempt to review the existing studies on 'financial management practices of life insurance companies' available in India and outside India. The extensive literature is available on the same, from that few selected pieces of literature are presented below. It has been categorized into five sections keeping in view the set of objectives and chapterisation of the present study.

1. General Studies Related to Financial Management, Financial Performance and Accounting for Insurance
2. Studies Related to Operating Efficiency Analysis
3. Studies Related to Financial Soundness
4. Studies Related to Assets Under Management and Investment
5. Studies Related to Risk Management

Further, it has been categorized into Indian and foreign study followed by research gap addressed.

2.2 Selected Review of Literature

2.2.1 General Studies Related to Financial Management, Financial Performance and Accounting for Insurance

- **Indian Studies**

Prasanna Rajesh and Gan Leong Hin (2003) in their article "Financial Management: Issues for Developing Life Company in India" contains a brief description of an integrated framework that may help life insurance companies in India monitor their progress toward their plan and strategic financial objectives. The key financial issues in building a life insurance business in India have been emphasised in this article.

Mishra K.C. and Guria R.C. (2009) in their book "Financial Management and Insurance Accounting" covered the methods and techniques of financial management and regulations for insurance accounting after insurance sector liberalisation. They have discussed specific and relevant accounting standards promulgated by ICAI, IRDA Regulations, and system and structure of corporate taxation in India. Briefly, financial analysis and budgeting in the insurance company, financial control and distress analysis have also been explained.

Kutty Shashidharan (2012) in his article entitled "Finance- The Vital Blood Stream of a Life Office" discussed an overview of financial management including financial decisions, profit testing and allocation of capital, liability management, assets management, solvency and financial soundness and risk management. It gives a brief idea about the financial management of life insurance business.

Bawa Sumninder Kaur and Chattha Samiya (2013) in their article entitled "Financial Performance of Life Insurers in Indian Insurance Industry" has measured the impact of liquidity, solvency, profitability, leverage, size, and equity capital on the profitability of selected life insurers in India. The research is based on data from one public and seventeen private life insurance firms in India over a five-year period. It was shown that liquidity and size had a significant impact on life insurer profitability, however capital had a negative impact. However, there is little evidence of a link between leverage, solvency, and profitability.

Nena Sonal (2013) in her paper entitled "Performance Evaluation of Life Insurance Corporation (LIC) of India" evaluated the growth & performance of LIC by considering main sources of income and expenses. The study has been concluded that after privatisation LIC shows consistently increase their business and maintained market value of products, but they need to control their operating expenses.

Jena Artta Bandhu (2014) in his paper entitled "Financial Performance of Selected Indian Life Insurance Companies: An Analysis" has measured financial performance using financial ratios like current ratio, liquid ratio, absolute liquid ratio, debt-equity ratio, and trend analysis of Assets of selected life insurance companies in India. The study consisted of one public company and four private companies and based on analysis it has been discussed suggestions for their improvement in short term and long-term financial position.

Insurance Institute of India (2016) in their book entitled "Life Insurance Finance (IC-26)" covered principles of accounting, life insurance accounting procedures, budgetary control and application of financial management concept in the insurance industry and financial analysis of life insurance business. Accounting standards applicable in the life insurance industry has also been incorporated.

- **Foreign Studies**

Forbes Stephen W. (1987) in his paper entitled "Life Insurance Financial Management Issues" concluded with ample opportunities in life insurance financial management, which can help to close the gap between institutional and theoretical research in life insurance. He has stated that very limited applied research has come from academia. He has explained the concept of Assets liability management, solvency assessment, Profitability measures, pricing procedure, distribution system, and new product and management of the business in force.

Cummins J. David and Tennant Joan Lamm (1993) in their book entitled "Financial Management of Life Insurance Companies" collected a collection of papers on the management of life insurance using financial principles. The conceptual contribution has been made by industry experts and academicians on the technological and global insurance market, life insurance and solvency question, mutual life insurance conversation, performance measurement, cost of capital for insurance company, corporate risk management and insurance, assets liabilities management, and other financial issues.

Akhter Waheed and Zia-ur-Rehman Muhammad (2011) in their paper on "Financial Performance of Pakistan Insurance Industry in Global Scenario" have analysed performance based on major variables such as Penetration, Density, Premium and market share. This research indicates literacy rate and women participation as key indicators for the development of insurance business.

Sambasivam Yuvraj and Ayele Abate Gashaw (2013) in their article entitled "A study on the Performance of Insurance Companies in Ethiopia" have analysed the relationship of certain variables on profitability. Based on regression, a study has concluded that growth, size and volume are positively related to profitability.

Akotey Joseph Oscar, Sackey Frank G., Amoah Lordina and Manso Richard Frimpong (2013) in their paper on "The financial performance of life insurance companies in Ghana" examined profitability and measured the relationship among investment income, underwriting profit and net profit on the profitability of life insurance companies in Ghana. The results revealed that Gross written premium has a positive relationship on sales profitability whereas investment income has a negative relationship on sales profitability.

- **Research Openings Unfolded**

It is very clear from the review of the literature that there are quite limited studies on the financial management practices of life insurers. No single study has thrown light on the main objectives of financial management (i.e., profit maximisation and wealth maximisation) and practices followed by the private life insurers in India. Scarce understanding has been provided by the supporting pieces of literature which have been reviewed in later points of the current chapter. The present study focuses on financial management practices about the maximisation of income/surplus and maximisation of shareholders' wealth. Apart from this, the current study has also focused on financial soundness and risk management of private life insurers in India. Thus, this study aids private players for better financial management practices by emphasising the variables they need to focus upon. Based on the objectives and framework of the present study, allied literate has been reviewed as under.

2.2.2 Studies Related to Operating Efficiency Analysis

- **Indian Studies**

Tone Kaoru and Sahoo Biresh K. (2005) in their paper entitled "Evaluating cost efficiency and returns to scale in the Life Insurance Corporation of India using data envelopment analysis" examined the performance of LIC of India for the period of 1982-83 to 2000-01. The result suggested that significant variability in overall and scale efficiencies over the nineteen years' study period.

Sinha Ram Pratap (2007) in his paper entitled "Operating Efficiency of Life Insurance Companies: An Assurance Region Model," examined the technical efficiency for 13 different life insurance companies in India from the year 2002-03 to 2005-06. According to the study, mean technical efficiency increased in the year 2003-04, remained constant in the year 2004-05, and decreased in the year 2005-06.

Shinde Sanjaykumar (2011) in his Ph.D. thesis examined the performance of public and private life insurers in India. All life insurers operated in India during the year 2000-01 to 2009-10 were selected for the study which comprised of twenty-two private and one public company. This study examines the cost efficiency of life insurance firms in India and estimates the volume of premiums they would receive. This study employs a variety of statistical measures, including percentage, mean, ANOVA, Data Envelopment Analysis, and Linear Trend. In terms of financial stability, the Life Insurance Corporation of India was found to be superior to private life insurance businesses. On the contrary, there has been an upward trend in the life insurance market in terms of new business and total premium, indicating that the life insurance market in India has a lot of potential.

Ansah-Adu Kwadjo, Andoh Charles, and Abor Joshua (2011) in their paper entitled "Evaluating the cost efficiency of insurance companies in Ghana" ascertained whether insurers are cost-efficient or not and examined the efficiency determinants of insurers. The study analysed cross-section data from 30 firms from the year 2006 to 2008 to evaluate efficiency scores using DEA. A regression model was also used to identify the important variables of efficiency in the Ghanaian insurance industry.

Kshetrimayum Sobita Devi (2011) in her Ph.D. thesis examined the efficiency and productivity of 15 selected life insurers for the period from 2001-02 to 2009-10.

She has conducted studies using the DEA and the Malmquist Productivity Index. It had two inputs: commission and running expenses, as well as two outputs: premium and benefits paid. In this study, the Malmquist Productivity Index was used to calculate the change in the production frontier and how it connects to the enterprises' frontiers over time.

Bawa Sumninder Kaur and Miss Ruchita (2011) in their paper entitled "Efficiencies of health insurance business in India: An application of DEA" used two principal methods- DEA and Stochastic Frontier. The study focused on ten Indian general insurance companies, four of which were public sector enterprises, and covered the years 2003 to 2010. The study used equity capital and labour as input and net premium as output. This is attributable to the fact that private players are operating on IRS by taking the advantage of PTE and SE.

Varma P.R. Swathy (2012) in her thesis entitled on “A Comparative Study of Public and Private Sector in General Insurance” examined the comparative performance of the general insurance companies in India with regard to profitability, service satisfaction and impact of privatisation on the performance of public sector insurance companies.

For examining the performance of general insurers, claim ratio, expense ratio, combined ratio, underwriting results ratio, net retention ratio, investment income ratio, operating ratio, net earning ratio, and return on equity ratio have been used and these ratios have been analysed by calculating descriptive statistics. Later, appropriate non-parametric tests have been used. However, satisfaction of customers has been analysed in terms of premium, service of the staff, claim settlement and customer's perception regarding opening of the sector. It has also been analysed a comparison of insurance penetration, insurance density, insurance premium and market share globally. The study has been suggested that the public sector and private sector players should change their strategy and product design.

K. Venkidasamy (2012) in his thesis entitled on “Productivity and Financial Efficiency of Life Insurance Companies in India” has analysed the factors affecting the productivity and financial efficiency, growth & progress, and liquidity & solvency position of twelve selected life insurers in India. It is purely based on secondary data from the year 2001-02 to 2010-11, and the data has analysed using statistical tools such as compound annual growth rate, trend analysis, ratio analysis, mean, standard deviation, covariance, correlation, multiple regression, partial productive of labour, capital, and capital intensity.

The growth and progress of selected life insurers operating in India were measured based on 11 variables such as number of branches, agents, policies, share capital, gross premium, commission expenses, claims paid, operating expenses, working capital, total assets, and net profit.

Whereas productivity has been measured in the ratio of output to one class of input, i.e., Partial productivity. The Partial factors productivity of labour, capital, Branches and Policies are estimated.

The efficiency of Life Insurance Companies in India has been measured based on various financial ratios. The study revealed that LIC of India performed with better efficiency level in all aspects. On the other hand, private players have attained productivity efficiency with respect to agent, policies, and branches.

Sinha Abhijit (2013) in his paper entitled" Efficiency Analysis of private life insurers in India: An application of Data Envelopment Analysis" analysed technical efficiency, pure technical efficiency, and scale efficiency by applying DEA. All private life insurers have taken into consideration the study period from 2001-02 to 2011-12. This research is based on two inputs: commissions and operating expenses, as well as two outputs: net premium and benefits paid. The study revealed that SBI Life is the only player performing consistently well in all aspects of efficiency.

Nandi Jayanta Kumar (2014) in his paper entitled "Relative Efficiency Analysis of Selected Life Insurers in India using Data Envelopment Analysis" measured the relative performance efficiency of the selected 13 life insurance companies including LIC of India using DEA for the ten years from 2002-03 to 2011-12. The research included two inputs: commission expense and operating expenses, as well as two outputs: premium and benefits paid. Overall average technical efficiency was around 82 percent, pure technical efficiency was about 87 percent, and scale efficiency was about 94 percent, according to the findings. On the contrary, LIC has performed better individually and sector wise.

Mathur Tanuj and Paul Ujjwal Kanti (2014) in their paper entitled "Performance Appraisal of Indian Non-Life Insurance Companies: A DEA Approach" assessed the overall technical efficiency of selected twenty non-life insurers operating in India. They have used the OLS regression method to investigate the impact of financial ratios on the company's efficiency level. The research relies on three inputs: commission, management expenses, and shareholder capital, as well as two outputs: net premium and investment income. Five financial ratios were employed, including the technical reserve ratio, management exp ratio, net earnings ratio, liquid asset to liability ratio, and combined ratio. The study also differentiated efficient and inefficient units.

Bawa Sumninder Kaur and Bhagat Nidhi (2015) in their paper entitled "Efficiency of Life Insurance Companies Operating in Punjab" determined the efficiency of life insurance companies by using DEA. It gives an overview of Panjab's life insurance business in terms of penetration, density, premiums, and the number of policies. The study lasted seven years, from 2006-07 to 2012-13, and a total of 13 life insurance companies were used as a sample. The study came to a conclusion concerning the efficiency of the Indian Life Insurance Corporation (LIC) during the study period. In the first four years of the study period, Aviva and SBI were found to be efficient. In Panjab, life insurers have an average technical efficiency of 55.0 percent, a pure technical efficiency of 67.9 percent, and a scale efficiency of 80.5 percent.

Chakraborty Joy (2016) in his paper entitled "Efficiency Analysis of Indian Life Insurance Firms: A DEA Investigation" examined the efficiency of Indian life insurance sector using a panel dataset of one public company and seventeen private life insurance companies. Against the backdrop of the US financial crisis, the study period lasted 2008-09 to 2014-15. It has highlighted the anomalies in the life insurer's operating efficiencies along with the direction for improvement.

Parida Tapas Kumar and Acharya Debashis (2017) in their book "The Life Insurance Industry in India: Current State and Efficiency" analysed technical efficiency and productivity change of life insurance companies in India in which technical efficiency has been measured by data envelopment analysis and productivity has been measured by malmquist productivity index. They have also analysed important factors determining profitability of life insurance companies in India and efficiency-profitability relationship. For the study 1 public and 12 private companies have been considered for the period of 2002-03 to 2014-15. Analysis of the study revealed that deregulatory efforts might have had only a minor impact on the Indian life insurance industry's productivity and efficiency, while GDP and inflation are a significant determinant of profitability.

- **Foreign Studies**

Saad Norma Md and Idris Nur Edzalina Haji (2011) in their paper entitled "Efficiency of Life Insurance Companies in Malaysia and Brunei: A Comparative Analysis" analysed the technical efficiency of selected nine life insurers from Malaysia and two life insurers of Brunei for the year 2000 to 2005. The study took into account two inputs, Commission Paid and Management Expenses, as well as two outputs, Net Premium and Net Income on Investment. The study has used Malmquist index for productivity analysis. This finding revealed that the life insurance sectors in both Malaysia and Brunei have a lot of potential in terms of total productivity change. In order to provide excellent customer service, firms can increase their efficiency by increasing their usage of information and communication technology.

Song Wu, Zhengyong Cao, Kun Qin, Wei Lang, and Rong Zhang (2012) in their article entitled "Empirical Analysis of the Operating Efficiency of China's Insurance Industry" assess the efficiency of china's insurance industry profits using single-stage stochastic frontier model and insurance industry economy of scale. They have found that Chinese life and general insurance companies are in short of scale economy as compared to foreign life and general insurance company.

Alhassan Abdul Latif, Addisson George Kojo, and Asamoah Michael Effah (2014) in their paper entitled "Market structure, efficiency and profitability of insurance companies in Ghana" examined market structure by using Herfindahl Hirschman Index and concentration ratio, efficiency by using Data Envelopment Analysis and profitability by using Return on Assets Ratio. This study has used the data from 2007-11, which consists of 14 life and 22 non-life insurance companies. Significant findings pointed out that the life insurance sector has high levels of efficiency as compared to the non-life segment.

Micajkova Vesna (2015) in her paper entitled "Efficiency of Macedonian Insurance Companies: A DEA Approach" examined the efficiency of the insurance sector of the Republic of Macedonia from 2009-2013. Efficiency of 11 Macedonian insurance companies have been measured with regard to technical, pure technical and scale efficiency. The study concluded with an increasing trend in average efficiency during the study period.

Al-Amri Khalid (2015) in his paper "Takaful insurance efficiency in the GCC countries" analysed the Takaful insurance firms' performance in the Gulf Cooperation Council (GCC) countries and perform a relative analysis for their different agencies.

The study examines the technical, purely technical, cost, and allocative efficiency of 115 enterprises from 2004 to 2009. Data envelopment analysis was used to analyse the technical, purely technical, cost, and allocative efficiency (DEA). It revealed that UAE and Qatar have the highest technological efficiency, while Saudi Arabia and the UAE have the lowest costs-efficiency of the GCC countries.

Faruk Md. Omar and Rahaman Arafatur (2015) in their paper entitled "Measuring Efficiency of Conventional Life Insurance Companies in Bangladesh and Takaful Life Insurance Companies in Malaysia: A Non-Parametric Approach" evaluated actual efficiency comparison of life insurance company between Bangladesh and Malaysia. Fifteen life insurance companies have been selected from Bangladesh and five takaful from Malaysia. The author has used the DEA and Malmquist index with using two outputs Premium and Investment Income and two inputs Commission and Management Expenses.

- **Research Gap Addressed**

Based on the above literature review, it has been observed that most of the studies have tested DEA model for the testing efficiency in operation, which is to a great extent appropriate, but no study has dealt with the slack in output with maintaining the same level of input and detail explanation for maximisation of output. DEA operates only with selected inputs and outputs, but not with the other variables like growth and trends in those variables. Thus, the current study has attempted to fill that gap by analysing the growth of different variables like new policies issued, premium, income from investment, benefits paid, management of expenses, surplus, etc. The present study has used a DEA approach with output slack, which was rarely calculated by the researcher, and has provided detailed explanations for an increase in output by maintaining the same level of input.

2.2.3 Studies Related to Financial Soundness

- **Indian Studies**

Darzi Tanveer Ahmad (2012) in his Ph.D. thesis, examined the financial performance of public and private sector non-life insurance companies in India after liberalisation using the CARAMEL framework. The study has concluded that price deregulation in both insurers has affected in profit margin and premium of the companies.

Ansari Valeed A. and Fola Wubshet (2014) in their paper entitled "Financial Soundness and Performance of Life Insurance Companies in India" examined the financial soundness and performance of selected life insurance companies in India for the period of five years from 2008-09 to 2012-13. A considerable difference in capital adequacy, asset quality, management efficiency, earning and profitability, and liquidity situation has been described using the CARAMEL model. Strange observation has been found by the researchers that there is no significant difference in ROA and new business premium because the sector has given excessive attention on marketing to grow premium rather than risk management and investment portfolio.

Varvadiya Jignesh S. (2014) in his thesis entitled “A Comparative Study of Financial Performance Appraisal of Selected Private Life Insurance Companies of India” analysed mainly performance in terms of premium, capital structure, profit margin, assets turnover, and return on capital employed using common size statement analysis and other statistical tools. The study contained an analysis of ten selected companies for ten years from 2003-04 to 2012-13. In conclusion, it has been said that all selected private sector life insurance companies have shown growing results.

Dar Showket Ahmad and Bhat Javaid Ahmad (2015) in their paper entitled "A Comparative Evaluation of Financial Performance and Soundness of Selected Public and Private Life Insurers in India" evaluated the financial performance and soundness of selected public and private life insurers in India for the period from 2005-06 to 2012-13. It has been focused mainly on capital adequacy, earnings and profitability and liquidity with the set of ratios and revealed a significant difference among the companies. Private companies were efficiently handling the capital as compared to a public company and in the case of earning and profitability and liquidity public companies have performed well.

Bardhan Mihir Ranjan, Dey Nikhil Bhusan, and Adhikari Kingshuk (2015) in their paper entitled "Capital structure of life insurance companies in India- An Analytical Study" measured and tested the solvency position of the selected life insurers in India for the period 2006-07 to 2012-13 with using different ratios. The study revealed that Indian life insurance companies were dependent on debt capital instead of their capital which is a very risky business practice and the policyholders' money will not remain safe in case of liquidation due to financial market failures.

Chandrapal Jayant D. (2017) in his paper entitled "Evaluation of financial soundness indicators of Indian life insurance industry: LIC of India vs Private Life Insurance Companies" has analysed the financial soundness of Indian life insurers with the help of ratio analysis based on the CARAMEL framework from 2005 to 2015. By using pair sample T-test, it concluded that LIC has achieved a better result than that of private life insurers. Although, private life insurance companies have noted increasing trend in the ratios of CARAMEL and gradual improvement in financial soundness.

- **Foreign Studies**

Das Udaibir S., Davies Nigel, and Podpiera Richard (2003) in their working paper entitled "Insurance and issues in financial soundness" explored insurance as a source of financial system vulnerability. It provided a brief overview of the insurance industry and reviewed the risks. It suggested key indicators for monitoring the financial health of insurance companies and the insurance sector as a whole; selected indicators were presented using the CARAMEL framework, which adds actuarial and reinsurance issues to the CAMELS technique used in the banking industry. It contained a core set and encouraged a set of ratios and detailed discussion on it has been made. They concluded failure in life insurance that time due to the deregulation, economic expansion and significant price fluctuations.

World Bank and International Monetary Fund (2005) in their handbook explained analytical framework and methodologies of financial sector assessments as well as extensive use for training on techniques of such evaluation. It outlines the fundamental features of effective insurance sector regulation and supervision, as well as the legal requirements. It has explained quantitative soundness indicators for life as well as non-life insurance companies presented with core and encouraged set.

International Monetary Fund (2006) in its book entitled "Financial Soundness Indicators: Compilation Guide" presented in four parts. Part one covered conceptual framework, part two specification of financial soundness indicators, part three compilation and dissemination of financial soundness indicators and part four analysis of financial soundness indicators. It has also discussed industry-wise financial soundness indicators, consisting of life insurance, non-life insurance and banks.

Ghimire Rabindra (2013) in his paper entitled "Financial Efficiency of Non-Life Insurance Industries in Nepal" has analysed a brief overview of the financial efficiency of non-life insurance industries of Nepal. It has used 16 different ratios and 16 private sector no-life insurance companies for the study period of 2007-2011. The study revealed that the financial soundness of the overall industry has been improving gradually and maintaining the same is the most challenging job for the regulator agencies while its contribution to the economy and society is noteworthy.

Smajla Nikolina (2014) in her paper entitled "Measuring Financial Soundness of Insurance Companies by using Caramels Model: Case of Croatia" explained financial soundness using the CARAMEL model and the study concluded that lower liquidity could create severe problems for insurers.

Cumminsa J. David, Rubio-Misasb María, Vencappaca Dev (2016) in their paper entitled "Competition, Efficiency and Soundness in European Life Insurance Markets" analysed cross-country evidence on the association between soundness and competition between 10 European Union (E.U.) life insurance markets over the post-deregulation period from 1999-2011. The results revealed that competition increases the soundness of the E.U. life insurance markets using a boon indicator.

- **Research Gap Addressed**

Based on the literature available related to financial soundness, it has been observed that different ratios and CARAMEL framework have been used as a tool. The present study has also used the CARAMEL framework with 11 attributes. Apart from this, these attributes were analysed and reduced from 11 to 4 using principal component analysis. These four components influence the financial soundness of private life insurers. The importance of each attribute towards the financial soundness of the selected companies has also been examined.

2.2.4 Studies Related to Assets Under Management and Investment

- **Indian Studies**

Mohmmad Riyaz (2008) in his thesis entitled “Investment Pattern of Life Insurance Corporation of India since 1991” studied an in-depth analysis of the investment pattern of LIC of India since 1991. It has also been focused on the overall performance of LIC in the pre and post-liberalisation period and to identify the problems, and suggest suitable measures for improvement of investment pattern of LIC. The study concluded that the pattern of investment of LIC has a profound influence on the legal situation. Due to the tether set up for its investment operations, LIC is not able to take advantage of the market conditions and increase the yield on its investments. The fast-growing private sector is significantly deprived of LIC's institutional savings.

Korivi Sunder Ram and Joshi-Khamkar Monita (2014) in their paper entitled "Investment practices of life insurance companies in India: the quest for a compliant portfolio" analysed investment patterns considering IRDA guidelines. Significant findings said that 55% to 65% investment in government securities, mortgage and housing society is 15% to 25%, in corporate bond is 10% to 15% and in equities is 5% to 10%.

Kakar Gautam (2015), in his article entitled "Shareholder Reporting in Life Insurance" explained and illustrated shareholder expectations to enable life insurance companies to match shareholder reporting. The researcher has described expectations of shareholders in the form of return on capital, risk appetite, governance, embedded value, goodwill, and risk-adjusted return maximisation.

Reddy S. M. (2015) in his paper entitled "Investment Pattern of Life Insurance Industry during Post Reform Period" analysed and measured the impact of change in regulations on the investment portfolio and investment portfolio composition time to time. The study has concluded that life insurers have been on the rise both absolutely and relatively with respect to central government securities and infrastructure.

Ashraf S Husain and Kumari Nikita (2016) in their article entitled "An Evaluation of Investment Performance of Private Life Insurance" evaluated investment performance using an output-oriented DEA model, consider two inputs: shareholders' investment and policyholders' investment, and two outputs: net returns on investments to shareholders and net returns on investments to policyholders. It has focused on 20 private life insurance companies from the year 2010-11 to 2013-14. The study revealed that 15% to 40% of companies had been found on the CRS frontier, 40% to 60% on the VRS frontier, and 15% to 40% on scale efficient.

Bawa Nancy, Dhanda Neelam (2016) in their paper entitled "An Analytical Study on Asset Under Management of Life Insurance Companies in India" examined fund wise investments by life insurers in India. Basic statistics such as percentage share, mean, standard deviation and coefficient of variance and frequency distribution have been used. The study revealed that efficient investment behaviour had been observed in the LIC of India from 2003 to 2011.

Dadhich Manish (2016) in his paper entitled "A Comparative Study of Investment Portfolio of Life fund of LIC of India and ICICI Prudential Life Insurers" analysed investment portfolio and investment pattern with special reference to LIC and ICICI for the period of 2009 to 2014 considering IRDA guidelines. The combination of public and private insurance company analysis emphasised how the companies were following the norms issued by IRDA and to signify deviation from the norms using chi-square, percentage and trend analysis. The study revealed that conservative approach has been used in investment strategy and there is a need for modification in the norms.

Kumari Nikita (2016), in her thesis, examined investment efficiency, investment patterns of selected private sector non-life and life insurance companies of India during pre- and post-insurance investment regulation. Because of firm characteristics, investment competence, and corporate governance structure and processes, considerable differences between life and non-life insurance businesses were discovered.

Nagaraju B and Roopa M B (2017) in their paper on "Investment Portfolio of Life Insurance Companies in India: A Study on Selected Life Insurance Companies of India" analysed the structure of investment portfolio of different life insurance companies of India and measured the relationship between the structure of investment portfolio and profitability. The study concluded that as per regulatory requirements, companies invested more in government securities and through private placement.

- **Foreign Studies**

Henebry Kathleen L. and Diamond Jeanette M. (1998) in their paper entitled "Life Insurance Company Investment Portfolio Composition" analysed investment portfolio composition of life insurance companies shifted over time using 55 companies. The study has concluded that in bonds and real estate, investment percentage has not changed significantly, whereas stock, mortgages and other assets charged were significant.

Rodriguez Richard, Bland Richard, Shaw Richard, Fulcher Graham, Laird Sean and Kelsey Richard (2000) in their report entitled "Shareholder Value Measures in General Insurance" discussed a brief introduction to shareholder value and illustrated current practice in several industries. The study has critically evaluated different traditional methods like dividend per share, earning per share, book value or net assets value per share, return on equity or capital etc. It has been revealed that no appropriate method for calculating shareholder value is available.

Hancock John, Huber Paul and Koch Pablo (2001), in their article entitled "Value Creation in The Insurance Industry" explained the economic framework for the insurance industry. The study said that how the insurance company can increase their shareholders wealth by compensating the incurred frictional cost of risk capital. It has been concluded that investment activities are not only the important aspect in the creation of shareholders' value but their fundamental economic principles underlying the insurance business, their skills of doing business and efficient cost management plays an important role in shareholders' value creation.

Pranevicius Henrikas and Sutiene Kristina (2008) in their research paper entitled "Copula Effect on Investment Portfolio of an Insurance Company" analysed and explored the copula effect for their dependency on various possible factors on the investment portfolio of the insurance company. Non-linear dependencies between correlated stochastic variables were investigated. Concerning investment performance, two copula functions, gaussian copula and student's t-copula, were used, and alternative asset mixes were studied using various combinations of the weights applied to the investment portfolio.

Ghimire Rabindra (2013) in his paper entitled "Investments Portfolio of Insurance Companies: Empirical Study of Nepal" explored the investment portfolio structure of both life and non-life insurance companies of Nepal. It compared current practices with regulatory norms required. Most of the companies have invested more than the required fund in the secured sector, giving priority to solvency over profitability. Except in a few circumstances, the overall scenario of the investment portfolio is satisfactory.

- **Research Gap Addressed**

Most of the Indian studies focus on investment patterns, investment portfolio, and efficiency of investment, very few pieces of literature deal with shareholders' value. The present study has analysed investment patterns as per IRDA regulations, the yield on investment, as well as assets under management in detail fund wise for selected private life insurers. No research has been found on the calculation of shareholders' value per rupee invested in the life insurance sector, and the current study has attempted to calculate the wealth of shareholders per rupee by using AUM as a key factor. Further, how the company's financial management has affected the shareholders has also been assessed and evaluated considering AUM as an essential element.

2.2.5 Studies Related to Risk Management

- **Indian Studies**

Insurance Institute of India (2003) in its book entitled "Risk Management" explained the concept of risk and uncertainty, scope and objectives of risk management and risk management process in detail. It makes a useful contribution to the achievement of corporate objectives. Indirectly, effective risk management also contributes to an increase in revenue. The insurers may be able to identify the pure risks involved in the new venture, suggest measures to control their risks so that the cost of accidental losses is reduced.

The Institute of Chartered Accountants of India (2008) in their book as a course curriculum of DIRM course explained and provided a brief overview of the general framework about the effect of risk management and reinsurance. It includes the economics of insurance, introduction and essentials of risk management, measures severity and frequency of loss, decision making under conditions of uncertainty, risk management process, ERM framework and case studies in risk management.

Majumdar Som (2013) in his article entitled "Risk Management Essentials: A Prelude to Regulatory Compliance" observed risk treatment stage is the most important functional area of a company's operation where regulatory compliance is the centre point of attention and explained the risk and profitability in terms of its efficiency. It has discussed the Australian regulatory scenario for the Indian companies too.

Loomba Jatinder (2014), in his book, “Risk Management & Insurance Planning” explained the concept related to risk management and insurance planning for personal financial planning as well as for the client. It has emphasised the role of a financial planner in the personal risk management process. It also identified and explained the features of private and public insurers available to meet each identified need, client on insurance and risk management needs. This book emphasised that the success of development interventions depends to a large extent on the ability of the organisations to face uncertainties and manage risks.

Attarwalal A.A. and Balasubramaniam (2014) in their paper entitled "Risk Management in Insurance Companies" explained the concept and proceeds of risk management for insurance companies in India. It has also evaluated IRDA guidelines and its impact on insurance sector based on the US ERM framework. It also explained vital risk control programmes and a three-line defence governance model in insurance risk management. The role of CRO indicated the strategies to pursue risk mitigation and protect the stakeholders. The study has recommended that the insurance companies need to upgrade their credit assessment and risk management skills and retain staff, develop a cadre of specialists and introduce technology-driven information system.

Sharma K.C. and Ghalavand Kiyanoush (2015), in their book entitled "An Introduction to Risk Management and Insurance" explained risk management principles and concepts in detail. It has explained ERM framework, the impact of risk on organisation, future of risk coverage by insurance, claim settlement practices followed by insurers, and risk architecture and structure. This book provides mainly fundamental knowledge and tool for risk management and ERM.

Gupta P.K. (2016) in his book entitled "Insurance and Risk Management" explained insurance and risk management with insurance classes and products and managerial aspects in the insurance business. This book is an attempt to investigate the functional area of insurance business, specifically the organisation of insurance firms, product design & development, claims handling, pricing and marketing of products, and insurance company financial operations. It has explored distinct approaches to risk management with an individual and organisational ERM approach. It introduced insurance as a risk mitigation device and explored insurance technologies and concepts of mitigation risk. It covered the emerging areas like reinsurance business, ALM aspects, automation of insurers operations and risk management for insurance companies.

- **Foreign Studies**

Dowd Kevin, Bartlett David L., Chaplin Mark, Kelliher Patrick and O'Brien Chris (2007) in their article entitled "Risk Management in The U.K. Insurance Industry: The Changing State of Practice" analysed a broad range and detailed pictures of the state of practice of U.K. insurers' risk management practices and how they have changed in recent years. It has consisted of four surveys, specifically on U.K. insurers’ risk management related to the reason for risk management, risk function, risk identification, risk measurement, and ERM. It has been found that life insurers tend to be better in risk management as compare to non-life insurers.

Tremblay Jacques and Wiebe Jason (2008) in their paper entitled "Life Insurance Costing and Risk Analysis" explained the introduction and principals of costing, risk management concept, costing process, pricing metrics, non-economic assumption setting, market risk considerations, policyholders behaviour and product features, and stochastic modelling for testing assumptions. The researcher signifies the role of actuary is more critical with the changing complexity of product designs, rates and charges for the lifetime of the product.

Cater Michelle, Kapel Anton and McConnell Pat (2009) in their article entitled "ERM Practices: A Comparison of Approaches" presented to the institute of actuaries of Australia gave an introduction to a key concept in ERM, then compares and by conducting two surveys compared ERM practices between Australia and global insurers. According to the survey, there are several areas where Australian insurers lag behind overseas ERM standards, although they are not considerably different from European and North American insurers' ERM processes. In regard to ERM lagging in

Australian insurers, risk control features of risk management such as systems and methodology, comparable contrary, limited usage of risk-based measurements in decision making, and the relatively high ranking of leadership concerns are being addressed. Finally, the study has concluded with suggestions and possible actions and provided a remedy to fill the gap in Australian insurers' current ERM practices.

Akotey Joseph Pscar and Abor Joshua (2013) in their paper entitled "Risk Management in the Ghanaian Insurance Industry" examined risk management practices through comparative case study methods in life and non-life insurers. The study has determined whether companies exhibit different or similar risk management practices and compare them to the principles of good practices in financial risk management. It has used three ratios such as claim ratio, retention ratio and outstanding premium ratio as key financial indicators. The study has observed some similarities and differences in risk management practices, almost all life insurers have stated their risk appetite levels considering which risk to absorb and which ones to transfer. Risk tolerance level not explicitly laid down in non-life insurance companies. The researcher has suggested managing risk proactively to penetrate insurance market in Ghana.

Rejda George E. and McNamara Michael J. (2016) in their book entitled "Principles of Risk Management and Insurance" explained basic concepts in risk management and insurance covering different types of risk in insurance and its treatment, introduction to risk management and ERM framework. This book has exclusively discussed operation, marketing strategy and regulatory change in the private insurance industry. Legal principles in risk insurance, life and health risk, personal property and liability risk, commercial property and liability risk with in-depth analysis of current insurance industry issues and practices has presented.

- **Research Gap Addressed**

In the area of risk management of life insurance, there are different studies available along with a number of reference books, articles and research papers, but a few pieces of research have focused on empirical research work. Moreover, empirical research on risk management has been observed in foreign countries. Taking the base of the literature available, the present study has made an attempt to understand risk, risk management concepts, ERM framework and various risk management presentations and practices followed by the selected companies. To understand risk management extensively, certain key ratios like conservation ratio, persistency ratio, claim ratio and retention ratio have been used. The present study has focused exclusively on private sector life insurers in India and their risk management structure, followed by contemporary issues in risk management, which makes it distinct from the other studies.

2.3 Proposed contribution of the present study to the literature

The literature review has taken into consideration exhaustive reading, scrutiny, collection and retrieval of literature in the field of life insurance. Constructive analysis of the compiled information in the rigorous literature review contributes to the present corpus of knowledge in terms of proposed improvement in financial management practices of the private life insurance companies in India. Based on the objectives of the present study, procurement, allocation and control of financial resources have emerged as the key factors to maximise the profit of the business and wealth of shareholders, which has been the prime focus of the research. The present study signifies factor or variables which affect operational efficiency of the life insurance business and proposed contribution in the form of identification of short term and long-term ways for improvement in the company's premium income which is directly related to profitability.

This research also contributes by identifying primary attributes affecting financial soundness. Further, the study has compared the pattern of investments with their regulatory norms prescribed by IRDA and a detailed analysis of assets under management of all selected companies has been undertaken. It amplifies clarity about assets under management and the ways to maximise the shareholders' value per rupee, considering AUM as a key factor. The newly derived formula of shareholders' value per rupee can be used by other researchers and investors to know the capability of the life insurance business. The process of literature review puts forth a realisation that there is a need for formulation of a model for measuring the impact of financial management on shareholder's value per rupee that would help the investors in decision making.

This research exercise has emerged in the form of a comparative study of various risk management practices followed by private life insurers in India. This increased awareness and availability of new information regarding financial management practices give a new direction to life insurance finance that opens new vistas for futuristic research in India.

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