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FINDINGS, SUGGESTIONS AND CONCLUSION

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7.1 Introduction

Oxford dictionary defines the word 'finding' as conclusion reached as a result of an inquiry, investigation or trial. Thus findings mean what have been learnt by enquiry or by research. According to Oxford dictionary, the word 'suggestion' means an idea or plan put forward for consideration and 'conclusion' means summing up of an argument or text. This chapter would be a presentation of sentences of various findings and conclusions of the main body of research work. In research work, findings generally relate to the answer to the differences, similarities and relationships of two or many sets of fact. It may be the result of enquiring and searching the causes and consequences of phenomena. Thus, findings are statement of factual information which are based on the analysis of data, conclusions are generalizations/inferences drawn in brief sentences from findings which are the answer to the research questions or hypotheses and suggestions are recommendations which should flow from the findings and conclusions (Krishnaswami and Ranganathan, 2008)[1].

"A research report must contain a statement of findings and recommendations in non-technical language so that it can be understood by all concerned. If the findings happen to be extensive, at this point they should be put in a summarized form" (Kothari, 2011)[2.] The final unit of a research report usually contains principal findings, the conclusions arrived at and the generalization formulated (Sidhu, 2011)[3].

7.2. FINDINGS

Findings based on the analysis of data have been presented chapter-wise which are as follows:-

7.2.1 PROFITABILITY ANALYSIS

7.2.1.1 Ratio of Underwriting Income to Net Premium

a) The descriptive analysis shows that the underwriting income ratio of RELIANCE is lowest and that of BAJAJ ALLIANZ is highest.

b) The analysis reveals that the underwriting income of five companies namely, RELIANCE, LICI, ING VYSYA, AVIVA and PNB MET LIFE is below industry average.

c) The underwriting income performance has improved for the industry as a whole up to 2008-09 and thereafter there is fluctuating trend observed up to the end of study period.

d) ANOVA test finds that there is no significant difference in the ratio of underwriting income to net premium across the select life insurance companies under the study.

7.2.1.2 Ratio of Total Income from Investment to Total Investment

a) Descriptive analysis shows that the investment income performance of AVIVA, BIRLA SUN LIFE, ICICI PRUDENTIAL is much better compared to other select life insurance companies.

b) The performance of BIRLA SUN LIFE, ICICI PRUDENTIAL AVIVA and RELIANCE are above industry average.

c) Analysis also indicates the fact that investment income performance of the industry has an increasing trend up to 2007-08 and thereafter there is fluctuating trend up to 2012-13

d) ANOVA test shows that there is no significant difference in the ratio of total income from investments to total investments across the select life insurance companies under the study.

7.2.1.3. Ratio of Operating Expenses to Net Premium

a) The descriptive analysis of operating expenses ratio reveals the fact that SBI LIFE and LICI maintain operating expenses to lower level.

b) Six companies, namely PNB MET LIFE, RELIANCE, AVIVA, ING VYSYA, MAX N Y and TATA AIA maintain it above industry average level.

c) The analysis relating to operating expenses ratio for the industry as a whole shows that this ratio has a decreasing trend.

d) The ANOVA test finds that there is significant difference in the ratio of operating expenses to net premium across the select life insurance companies under the study

e) The examination of the Tukey HSD post hoc analysis reveals that there are six mean comparisons that are significantly different and these differences have arisen because the average ratios of PNB MET LIFE and RLIANCE are much on the higher side compared to LICI, SBI LIFE, HDFC STANDARD and ICICI PRUDENTIAL.

7.2.1.4. Ratio of Benefits Paid to Net Premium

a) The descriptive analysis of the ratio of benefits paid to net premium reveals that LICI, ICICI PRUDENTIAL, BAJAJ ALLIANZ, AVIVA and RELIANCE are suffering higher underwriting risk losses.

b) Eight companies namely KOTAK MAHINDRA, BIRLA SUN LIFE, ING VYSYA ,SBI LIFE, TATA AIA, HDFC STANDARD, PNB MET LIFE and MAX N Y whose performances are better and below industry average.

c) The underwriting risk ratios of life insurance industry have increased during the study period alarmingly.

d) ANOVA test shows that there is no significant difference in the ratio of benefits paid to net premium across the select life insurance companies under the study.

7.2.1.5. Ratio of Change in Policy Liabilities to Net Premium

a) It is found that the performance with regard to the change in policy liabilities of LICI, SBI LIFE, HDFC STANDARD and ICICI PRUDENTIAL are discouraging.

b) Analysis finds that the ratio of LICI, SBI LIFE, HDFC STANDARD, ICICI PRUDENTIAL, BIRLA SUN LIFE, PNB MET LIFE and TATA AIA, the performance of which companies are poor and above industry average.

c) It is also found that the actuarial performance of the life insurance industry in India is satisfactory except 2009-10 and in this year almost all the companies' performance under the study has shown unsatisfactory results.

d) ANOVA test finds that there is no significant difference in the ratio of change in policy liabilities to net premium across the select insurance companies during the study period.

7.2.1.6. Ratio of Profit before Tax to Net Premium

a) Descriptive analysis reveals that the performance of BAJAJ ALLIANZ AND SBI LIFE is encouraging since they have maintained increasing trend of the ratio of profit before tax. In contrast, the ratios of profit before tax to net premium of LICI have registered a decreasing trend (if the ratios are calculated up to 5 decimal places.).

b) The descriptive analysis shows that the ratios of profit before tax to net premium of BAJAJ ALLIANZ, SBI LIFE , LICI, ICICI PRUDENTIAL, HDFC STANDARD, BIRLA SUN LIFE , KOTAK MAHINDRA and TATA AIA are above the industry average. However, in case of AVIVA, ING VYSYA, PNB MET LIFE, MAX N Y and RELIANCE, these ratios are below industry average.

c) Findings show that there is an increasing trend of profitability of the life insurance industry in India during the study period because of control in the management expenses and actuarial liabilities and this indicates that the life insurance industry is struggling to move towards sound financial position.

c) However, one important thing noticed in respect of this study is that all thirteen companies have enjoyed the taste of positive profit before tax to net premium ratio during the year 2012-13 after sustaining decreasing losses in the previous years which is a good sign to the growth life insurance industry in India if they maintain the pace.

d) It is confirmed by ANOVA test that there is significant difference in the ratio of profit before tax to net premium across the select life insurance companies under the study.

e) Examination of the Tukey HSD post hoc analysis reveals that there are three mean comparisons that are significantly different. However, the significant differences have arisen mainly because of very high underwriting losses throughout the study period of RELIANCE compared to LICI, SBI LIFE and BAJAJ ALLIANZ which is evident from descriptive statistics.

7.2.1.7. Premium Prediction

By using the method of least square, it is found that the market share in Net premium of giant LICI is likely to reduce by 5.13% in the year 2017-18 i.e., five years after 2012-13 and this 5.13% will be shared by other life insurance companies provided other things remaining the same.

7.2.1.8 Comprehensive Ranking Analysis

The study finds that overall profitability performance rank scores of the selected life insurance companies are not consistent under the study period. The Kruskal –Wallis test shows that there is significant difference in Overall Profitability Performance rank scores across the selected Life Insurance Companies in India `

7.2.2 SOLVENCY ANALYSIS

7.2.2.1 Ratio of Total Assets to Total Liabilities

a) Descriptive analysis finds that ICICI PRUDENTIAL, BIRLA SUN LIFE, HDFC STANDARD, KOTAK MAHINDRA, SBI LIFE, TATA AIA, MAX N Y and LICI should immediately do something for improving this ratio because this ratio has a decreasing trend over the study period of those companies. In case of LICI, this ratio is almost fixed throughout the study period.

b) The study reveals that the average ratio of total assets to total liabilities of ING VYSYA, AVIVA, RELIANCE, PNB MET LIFE and BAJAJ ALLIANZ are above industry average.

c) The ratios of total assets to total liabilities of the life insurance industry have decreased from 2003-04 to 2011-12 and this indicates an alarming situation so far as the solvency of Indian life insurance industry is concerned.

d) ANOVA test shows that there is no significant difference in the ratio of total assets to total liabilities across the select life insurance companies.

7.2.2.2. Ratio of Shareholders' Fund to Minimum Capital for Registration

a) So far as the capital adequacy over and above minimum capital is concerned, the life insurance companies namely, BAJAJ ALLIANZ, ICICI PRUDENTIAL, MAX N Y and SBI LIFE have done better compared to all other companies under the study. Most of the companies have not injected more and more capital during the study period.

b) Only four companies i.e. BAJAJ ALLIANZ, ICICI PRUDENTIAL, SBI LIFE and MAX N Y have maintained the ratio of shareholders' fund to minimum capital for registration above industry average.

c) It is also found that these ratios of life insurance industry have an increasing trend during the study period.

d) ANOVA test reveals that there is significant difference in the ratio of shareholders' fund to minimum capital for registration across the select life insurance companies under the study.

e) Post hoc analysis shows that there are there are ten mean comparisons that are significantly different.

7.2.2.3. Ratio of Shareholders' Fund to Technical Reserve

a) Descriptive analysis shows that the ratio of shareholders' fund to technical reserve has decreased over the study period except 2011-12 and 2012-13 in which years there is a little sign of improvement which indicates that all the policy holders will not get their full money returned in case of liquidation.

b) Analysis indicates that the average ratio of shareholders' fund to technical reserve of selected companies under the study are very poor except AVIVA, ING VYSYA, PNB MET LIFE AND RELIANCE whose ratios are above industry average.

c) The study also finds that this ratio of life insurance industry is decreasing year by year throughout the study period and there is little sign of improvement from 2010-11 to 2012-13.

d) ANOVA test reveals that there is no significant difference in the ratio of shareholders' fund to technical reserve across the select life insurance companies under the study.

7.2.2.4. Ratio of Shareholders' Fund to Total Assets

a) Descriptive analysis of the ratio of shareholders' fund to total assets appears to be interesting that more than 89% of the total assets of life insurance industry in India are financed from debt capital. However, in this respect the position of ING VYSYA, PNB MET LIFE, RELIANCE, AVIVA, BAJAJ ALLIANZ,SBI LIFE and MAX N Y is better compared to other select companies under the study.

b) From the analysis, it is clear that seven select companies namely, ING VYSYA, PNB MET LIFE, RELIANCE, AVIVA, BAJAJ ALLIANZ ,SBI LIFE and MAX N Y have maintained their average ratio above industry average.

c) This ratio of life insurance industry has a decreasing trend throughout the study period starting from 2003-04 to 2009-10 and there is slight improvement after 2009-10 which is alarming so far as the solvency of the companies are concerned.

d) ANOVA test shows that there is no significant difference in the ratio of shareholders' fund to total assets across the select life insurance companies under the study.

7.2.2.5. Ratio of Fixed Assets to Total Assets

a) Analysis finds that the average ratio of fixed assets to total assets is highest in case of MAX N Y and lowest in case of LICI.

b) By comparing the average performance of select companies with industry average , it has been made clear that the average tangibility ratio of six companies namely MAX N Y, PNB MET LIFE, HDFC STANDARD, ING VYSYA, TATA AIA and RELIANCE are above industry average and the ratio of other select companies are below industry average.

c) It is interesting to note that tangibility ratio of the life insurance industry on the average has a decreasing trend throughout the study period.

d) ANOVA test reveals that there is significant difference in the ratio of fixed assets to total assets across the select life insurance companies under the study.

e) Tukey HSD post hoc analysis reveals that there are two mean comparisons of MAX N Y (higher performer) with LICI and SBI LIFE (low performer) that are significantly different.

7.2.2.6. Comprehensive Ranking Analysis

The comprehensive ranking analysis reveals that there are inconsistent rank scores achieved by select life insurance companies for overall solvency performance during the study period of ten years taken together.

The Kruskal –Wallis test shows that there is significant difference in overall solvency performance across the select life insurance companies in India.

7.2.3. LIQUIDITY ANALYSIS

7.2.3.1 Ratio of Current Assets to Current Liabilities

a) The descriptive analysis of the ratio of current assets to current liabilities of 13 select life insurance companies reveals that LICI's liquidity position is far better than any life insurance companies under the study.

b) The average ratio of current assets to current liabilities for ten years study periods of LICI, HDFC STANDARD, SBI LIFE and ING VYSYA are above industry average.

c) It is also ascertained that the liquidity position of the life insurance industry in India has a decreasing trend from 2003-04 to 2009-10 and has increased thereafter up to the end of study period and this has happened due to better performance of LICI, HDFC STANDARD and SBI LIFE.

d) ANOVA test finds that there is significant difference in the ratio of current assets to current liabilities across the select life insurance companies under the study.

e) By conducting Tukey HSD post hoc test it is found that there are twelve mean comparisons that are significantly different and the differences have arisen due to better performance of LICI compared to other select life insurance companies.

7.2.3.2. Ratio of Current Assets to Total Assets

a) The descriptive analysis of the ratio of current assets to total assets indicates that the average ratio of current assets to total assets of ING VYSYA is 0.143 which is much higher compared to rest of the companies under the study.

b) KOTAK MAHINDRA, SBI LIFE, BAJAJ ALLIANZ, LICI, BIRLA SUN LIFE and ICICI PRUDENTIAL have maintained this ratio below industry average which are running through liquidity risks.

c) The study also reveals that this ratio of life insurance industry has decreased from 0.1559 in 2003-04 to 0.0323 in 2010-11 and thereafter there is slight effort of improvement.

d) ANOVA test shows that there is significant difference in the ratio of current assets to total assets across the select life insurance companies under the study.

e) Examination of the Tukey HSD post hoc analysis reveals that there are three mean comparisons of ING VYSYA(better performer) with BIRLA SUN LIFE, , ICICI PRUDENTIAL and LICI(poor performer) that are significantly different and that is why the difference has arisen.

7.2.3.3. Ratio of Cash and Bank Balances to Current Liabilities

a) Descriptive analysis reveals that LICI has maintained a healthy quick liquidity ratio throughout the study periods.

b) Analysis also finds that six companies namely, LICI, SBI LIFE,HDFC STANDARD, KOTAK MAHINDRA, ING VYSYS and BIRLA SUN LIFE have maintained the average ratio above industry average .

c) It has also been found that after deterioration in the average ratio of life insurance industry from 2003-04 to 2009-10, it has started recovering from 2010-11.

d) ANOVA test shows that there is significant difference in the ratio of cash and bank balances to current liabilities across the select life insurance companies under the study.

e) Examination of the Tukey HSD post hoc analysis reveals that there are seven mean comparisons of AVIVA, BAJAJ ALLIANZ, ICICI PRUDENTIAL, PNB MET LIFE, TATA AIA, MAX N Y AND RELIANCE(poor performer) with LICI (better performer) that are significantly different.

7.2.3.4. Ratio of Total Liabilities to Liquid Assets

a) From the descriptive analysis, it is clear that the ratios of total liabilities to liquid assets of BIRLA SUN LIFE, PNB MET LIFE, ING VYSYA, RELIANCE, HDFC STANDARD, KOTAK MAHINDRA, SBI LIFE and LICI are better than other select life insurance companies in India.

b) Result shows that five companies namely, ICICI PRUDENTIAL, MAX N Y, TATA AIA, BAJAJ ALLIANZ and AVIVA whose performances in respect of the ratio of total liabilities to liquid assets under the study period are poor and they have maintained their average ratios above industry average.

c) The descriptive analysis also reveals that the industry averages have an increasing trend up to 2010-11which is not a good sign for reducing the liquidity risks of the insurance industry in India although it has started recovering from 2011-12.

d) ANOVA test shows that there is significant difference in the ratio of total liabilities to liquid assets across the select life insurance companies under the study.

e) Examination of the Tukey HSD post hoc analysis reveals that there are eight mean comparisons with ICICI PRUDENTIAL(poor performer) that are significantly different and that why the significant difference has arisen.

7.2.3.5. Comprehensive Ranking Analysis

The analysis reveals that overall liquidity performance rank scores secured by most of the selected life insurance companies under the study period are not consistent except ING VYSYA, HDFC STANDARD and LICI.

Kruskal-Wallis test shows that there is significant difference in overall liquidity performance across the select life insurance companies in India.

7.2.4. OVERALL FINANCIAL PERFORMANCE ANALYSIS

7.2.4.1. Overall Financial Performance Analysis on the basis of Rank Scores of Profitability, Solvency and Liquidity Ratios taken together

The analysis shows that AVIVA, MAX N Y ,BAJAJ ALLIANZ, KOTAK MAHINDRA and HDFC STANDARD have secured 1st, 2nd, 3rd, 4th and 5th position respectively for achieving better overall financial performance rank scores during the study period of ten years taken together. The Kruskal–Wallis test determines that there is significant difference in overall financial performance rank scores across the select life insurance companies during the study period.

7.2.4.2. Multiple regression analysis of the factors determining overall financial performance of life insurance companies in India:-

Findings on the basis of Regression Summary

Independent Variables	Relationship with Financial performance/ ROE(Dependent Variable)	Null hypotheses
Underwriting risks	Significant and Positive	Rejected
Liquidity	Insignificant and Positive	Accepted
Tangibility	Insignificant and Positive	Accepted
Leverage	Significant and Negative	Rejected
Volume of capital	Significant and Negative	Rejected
Size	Significant and positive	Rejected

Analysis shows that there is significant positive relationship of underwriting risk and size with financial performance (ROE) of life insurance companies in India under the study. The study also finds there is significant negative relationship of volume of capital and leverage with financial performance (ROE). Finally, the study finds insignificant positive relationship of tangibility and liquidity with financial performance (ROE).

7.2.5. Edward I Altman's ''Z''-score Analysis Indicating the Overall Financial Health Position of Selected Life Insurance Companies in India

The study indicates that "Z''-score of BAJAJ ALLIANZ and PNB MET LIFE in the year 2003-04 lies in healthy zone/zone of ignorance but during rest of the years under the study, "Z''-scores lie in the unhealthy/bankruptcy zone .In case of all other select companies under the study "Z"-scores lie in the unhealthy/bankruptcy zone throughout the study periods.

7.3 SUGGESTIONS

1) The management of concerned life insurance companies is required to take immediate steps for control over operating expenses, benefits paid and policy liabilities for consistency in underwriting income and profit before tax. At the same time IRDA is also required to exercise stringent control over the expenses part of life insurance companies in India for improving profitability.

2) All the life insurance companies under the study are required to inject more capital to improve the solvency position of their companies. The life insurance supervisory authority is also advised to rethink over existing solvency benchmark.

3) It is advised that except LICI all the life insurance companies under the study are to improve their liquidity positions the fact which may be noted by the managers and the regulators keeping in mind the insurance failures in the late 1980s, 1990s and 2000.

4) Overall financial performance of AVIVA, MAX N Y, BAJAJ ALLIANZ, KOTAK MAHINDRA, and HDFC STANDARD taking profitability, solvency and liquidity aspects together is satisfactory as the overall rank scores achieved by these companies are much lower than rest of the companies under the study and the rest of the companies under the study are to perform consistently in respect of solvency and profitability during next decade.

5) All the life insurance companies under the study are to take into consideration the factors that influence their financial performance.

6) All life insurance companies under the study are to improve their financial health by making more profits, by improving liquidity position and by injecting more capital and thus improving “Z’’-score.

7.4 SCOPE FOR FUTURE RESEARCH

1) This study is based on accounting information available from financial statements of life insurance companies. In future, similar studies may be conducted on the basis of both accounting based (e.g., book value of equity) and market based (e.g., market value of equity) information and that may provide better insights to both management and regulatory bodies.

2) Studies may also be conducted to find out the impact of sub-component parts of each financial statement variable on the financial performance to find out the root cause of poor financial performance.

3) More studies may be made to identify regulatory, supervisory and macro economic variables affecting the financial performance of life insurance companies in India.

7.5 CONCLUSION

In life insurance business profit means underwriting income plus investment income. The study has led to the conclusion that huge underwriting losses are being incurred by the insurers in the life insurance sectors in our country. Indian life insurance companies have a tendency to offset underwriting losses by investment income. In this current fluctuating market, this is a very risky insurance management practices in India. However, insurance regulator by imposing mandatory risk management practices can make an attempt to reduce underwriting losses.

The financial solvency is the effect of surplus of total assets over the total liabilities and it means positive value of capital/net worth. The findings show that Indian life insurance companies depend too much on outsiders’ fund for their business and this is very risky business practices so far as long term solvency is concerned. Here, policyholders’ money is not safe if the investment markets are not behaving properly.

From a financial management's perspective, it is viewed that too much liquidity and too less liquidity are not beneficial to a company. The study has concluded that some life insurance companies under the study have maintained too much liquid assets while other are maintaining too less liquid assets. A balance should be maintained between the two levels to maintain optimum level of liquidity so that it can be beneficial to all the life insurance companies in India.

The study shows that overall financial performance rank scores achieved by all the selected life insurance companies under the study period are not consistent and there are differences in the overall financial performance and the difference has arisen due to inconsistent scores achieved by those companies with respect to liquidity, profitability and solvency.

Analysis shows that there is significant positive relationship of underwriting risk and size with financial performance (ROE) of life insurance companies in India under the study. The study also finds that there is significant negative relationship of volume of capital and leverage with financial performance (ROE). Finally, the study finds insignificant positive relationship of tangibility and liquidity with financial performance (ROE).

It is found that "Z''-score of PNB MET LIFE and BAJAJ ALLIANZ for the year 2003-04 lies in zone of ignorance and in rest of the year under the study, "Z"-score lie in the bankruptcy zone. But in case of all other companies under study, Z-score lies in the unhealthy zone. The findings of univariate solvency ratio analysis and multivariate "Z"-score analysis call for immediate measures for the improvement of solvency position of Indian life insurance industry. As the global economies have become cautious of risks involved in corporation's liabilities, the findings of the study are signals of impending failure and default probabilities of Indian life insurance companies.

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