DOES FINANCIAL PERFORMANCE VARY ACROSS SIZE OF LIFE INSURERS? EVIDENCE FROM INDIA

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ABSTRACT

Insurance Industry has been transformed to a large extent after the introduction of privatization in India and soon after enactment of IRDA Act in 1999, huge number of foreign insurers entered the Indian insurance market. Many private life insurance companies have been set up within a very short period of time. Over the years, competition between the firms has also been increased. Insurance companies not only need to focus on earning profits but also have to make efforts to survive in the competitive market irrespective of its size, large or small. Since then, financial analysis of insurance companies has found relevance and thus the present paper aims at analyzing the financial performance of three Indian life insurers of different sizes over ten financial years from 2010-2011 to 2019-2020. The select financial ratios have been used to arrive at the findings of the research work.

Keywords: Current Assets, Liquidity, Profitability, Solvency, Total Assets

INTRODUCTION

Life insurance sector may be considered as one of the most important sectors in an economy. An efficient insurance industry transfers the financial risk from individuals and mobilizes their savings towards productive investment avenues. Financial security is provided to individuals in the form of protection of financial loss by offering a wide variety of insurance products (Bawa and Chattha, 2013; Verma and Bala, 2013). The industry is growing dynamically in India with a rapid increase in insurance premium as compared to its global counterparts (Ray *et al.*, 2020). The entry of life insurers of various countries of the world has revolutionized the Indian life insurance market (Charumathi, 2012). The competition in the market has increased manifold after the liberalization of Indian economy (Parida and Acharya, 2016). Life insurance companies should give more emphasis on increasing their earnings, market share and also on consolidating the financial position to survive in the competitive environment (Adhikari and Ghosh, 2018).

In such a competitive scenario, financial performances of the companies need to be assessed and analysed regularly since higher performance implies greater efficiency and generate higher

revenue. Ratio analysis is generally considered as one of the most useful measurement instruments of financial performance (Sudesh and Makkar, 2012). The financial information disclosed by the corporates are taken into consideration for measuring financial performance. Thus, full disclosure by the companies in their Annual Reports is ensured by the higher authorities for transparent and reliable financial reports (Mangala and Isha, 2019).

Performance of a firm is affected by multiplicity of factors. Recent studies have found several firm specific and macroeconomic factors affecting financial aspect of corporate firms (Moro and Anderloni, 2014; Abduh and Isma, 2016; Chander *et al*., 2019). Macroeconomic factors are outside the controlling capacity of the firm and thus posing a great threat to the companies. Not only the financial performance gets effected but the share prices of the companies are also influenced by the macroeconomic variables (Saxena and Bhadauriya, 2019). Firm specific factors are internal to a firm hence these are controllable factors to the management. One of the firm specific factors is size of companies.

Size of a firm influences the performance of life insurers in various ways (Ajao and Ogieriakhi, 2018). It is considered to be one of the most prominent factors influencing the performance of insurers (Derbali, 2014). Thus, it is worthwhile to study and compare the performance in terms of profitability, solvency and liquidity of life insurance companies of different size. Companies of any size experience multidimensional issues to survive in the competitive environment driving by market forces. Large firms are said to have advantage over the small firms thus their performance on the financial front also amplifies but some studies also stated the converse. So, financial performance analysis of all sizes of companies is of paramount importance.

REVIEW OF LITERATURE

Naidu and Paramasivan (2015) focused on analyzing the financial performance the using various financial ratios depicting short and long run solvency position. The study compared the performance on the financial front of insurers hailing from private sector as well as public sector. The findings revealed better performance of private players. Al-Dalaien and Alhroob (2017) conducted a similar study on Jordanian insurance company using some accounting ratios and by applying Altman Z score model that assessed the probability of any company to go bankrupt. It suggested the companies to take adequate measures in order to avoid bankruptcy. Saqr (2017) using financial ratios relating to liquidity, ROI and ROE revealed that the Libya insurance company suffered from huge financial liabilities. Chellasamy and Jananimanjeeswari (2018) conducted a study to compare financial performance using few financial ratios of liquidity, tangibility and leverage. Akuffo *et al*. (2016) made a comparative study on private and public sector life insurers by using twenty-five financial ratios. Fuzzy clustering was used for grouping the companies based on ownership. It was found that privately owned companies showed better performance than publicly owned insurers.

Born (2001) inferred that the performance of insurers was related significantly with their size. Charumathi (2012) found that profitability was positively affected by the size of company. Bawa and Chattha (2013) found that life insurer's profitability was positively connected to size of company. Bardhan *et al*. (2015) found that life insurance companies were heavily dependent on acquiring capital in the form of debt instead of raising own capital which posed a serious threat in the operation of the business. Boadi *et al*. (2013) revealed that leverage and liquidity had a positive relationship with profitability. Sambasivam and Ayele (2013) found direct relation between size and Return on Assets. Malik (2011) observed a positive correlation between size of insurance companies and its Return on Assets. Akotey *et al*. (2013) revealed a positive relationship between profitability and gross written premium. Kumari (2015) found that net premium and claim had positive influence on the investment of insurers. Boyjoo *et al*. (2017) delineated size of the company as one of the determinants and it was found having a positive influence on insurance firms' performances. Kripa and Ajasllari (2016) found the factors that affect the performance of insurers, of which size had positive but insignificant impact of profitability. Ondigi and Willy (2016) found positive and significant influence of company size on the insurers' performance.

Birhan (2017) found that size of a firm did not influence its profitability but it proved to be statistically significant in relation to profitability of the firm. Hailegebreal (2016), Banerjee and Majumdar (2018), Batool and Sahi (2019) and

Horera and Maganya (2020) also revealed that company size had no significant relationship with profitability of a company.

OBJECTIVES OF THE RESEARCH WORK

1. To compare the profitability of select Indian life insurers from 2010-2011 to 2019-2020.
2. To compare the solvency of select Indian life insurers from 2010-11 to 2019-2020.
3. To compare the liquidity of select Indian life insurers from 2010-11 to 2019-2020.

HYPOTHESES OF THE RESEARCH WORK

1. Profitability varies across the size of life insurers.
2. Solvency varies across the size of life insurers.
3. Liquidity varies across the size of life insurers.

METHODOLOGY OF THE RESEARCH WORK

The paper seeks to achieve its objectives based on data collected from IRDAI's Handbook, annual reports of the companies and journals from 2010-11 to 2019-20. The total number of life insurers in India is 24 which may be considered as the population of the study from which only three life insurers have been selected as sample. In order to select the companies, the data relating to total assets for the period of ten years from 2010-11 to 2019-20 have been obtained and the average of total assets for the period of ten years have been computed. The average of total assets for the study period has been used as a representative for identifying the size of companies and thus ranks of each insurer has been assigned depending upon the value of average total assets. Accordingly, all the life insurers have been grouped into three categories (i.e., large, medium and small). Three life insurers have been selected using stratified random sampling taking one from each group. The companies selected for the study are ICICI Prudential from the category of large size companies, Kotak Mahindra from the class of medium size companies and Bharati AXA from the group of small size companies.

In order to analyze the data, ratio analysis, an important tool for assessing the profitability, solvency, and liquidity characteristics of the select insurers, has been used for financial analysis. Descriptive statistics and inferential statistics like One way ANOVA have been used. Further for Post-hoc analysis, Bonferroni test has been applied to identify the statistically significant difference in the performance of pairs of companies. This test is used to reduce the chance of type I error (Rice, 1989).

SCOPE OF THE RESEARCH WORK

1. The present study is based on data collected from secondary sources for ten financial years (2010-11 to 2019-20) only.
2. Three financial ratios have been used to compare the financial performance of the life insurers selected for the study.

LIMITATIONS OF THE RESEARCH WORK

1. The inherent limitations of secondary data cannot be ignored.
2. The interpretation of financial performance is restricted to select ratios used in the study.
3. The study reflects the status of select companies during the ten financial years selected for the study.

RESULTS AND DISCUSSION

Table 1 shows the mean of the ratio of Profit Before Tax (PBT) to Net Premium of the three life insurers selected from different groups under study. The ratio indicates the efficiency of the company to generate profit per unit of net premium earned (Tomar *et al*., 2019). Higher the value of this ratio, higher is the profitability and vice-versa. Over the study period, ICICI prudential (large size) shows the highest mean of the ratio of PBT to net premium, followed by Kotak Mahindra (medium size) and Bharati AXA (small size). In other words, profitability is relatively more in case of large size company which is followed by medium size company and small size company.

Table 1: Ratio of Profit before Tax to Net Premium

Companies	Mean	SD	F Value	p Value
ICICI Prudential	0.080	0.033	31.633	0.000
Kotak Mahindra	0.068	0.015		
Bharati AXA	-0.149	0.120		

Note: Based on data obtained from IRDAI Handbook on Indian Insurance Statistics *(Various issues)*

Table 1 also portrays SD, this ratio of three life insurers selected from different groups under study. Out of three insurance companies (categorized on the basis of their size), SD is highest of Bharati AXA Life Insurance company, which implies that the said ratio is most scattered while in the case of Kotak Mahindra, SD is least indicating that over the period of study, the said ratio is relatively consistent than other two life insurers. Further, the profitability varies significantly across the size of the life insurers as revealed from Table 1.

Table 2: Result of Bonferroni Test for the Ratio of Profit before Tax to Net Premium

Insurer_A	Insurer_B	Gap in Mean (A-B)	Sig.
ICICI Prudential	Kotak Mahindra	0.0126	1.000
ICICI Prudential	Bharati AXA	0.2290*	0.000
Kotak Mahindra	Bharati AXA	0.2165*	0.000

Note: Based on data obtained from IRDAI Handbook on Indian Insurance Statistics *(Various issues)*

Table 2 depicts the result of Bonferroni Post-Hoc test for multiple comparisons across the sample companies in terms of ratio of PBT to net premium during the period of study. It is observed from the p values that mean difference of the ratio is significant between ICICI Prudential and Bharati AXA (0.000). The mean difference of the ratio between Kotak Mahindra and Bharati AXA (0.000) is also significant. The result of the Bonferroni test points that the mean difference is significant between these two pairs of companies only.

Table 3 shows that Bharati AXA (small size) has the highest mean of the ratio of Shareholders fund to total assets followed by Kotak Mahindra (medium size) and ICICI prudential (large size). The ratio depicts the composition of funds in the form of stocks and external borrowings in the Total Assets of the company. It shows the ratio of amount financed with stock rather than debt thus indicating the financial stability of the company in the long run (Rao and Rao, 2019)

Higher the value of this ratio, higher is its solvency position and vice-versa. In other words, solvency is relatively more in case of small size company, which is followed by medium size company and large size company. It means the large sized company is leveraging its fund by employing more external debt as a source of financing.

Table 3: Ratio of Shareholders Fund to Total Assets

Companies	Mean	SD	F value	p value
ICICI Prudential	0.056	0.010	94.451	0.000
Kotak Mahindra	0.079	0.010		
Bharati AXA	0.714	0.210		

Note: Based on data obtained from IRDAI Handbook on Indian Insurance Statistics *(Various issues)*

Table 3 also portrays that out of three insurance companies categorized based on their size, the standard deviation is the highest for the solvency ratio of Bharati AXA life Insurance company which implies that the said ratio over the period of the study is most scattered as compared to the standard deviation of Kotak Mahindra and ICICI Prudential. The said ratio is more consistent in the case of Kotak Mahindra and ICICI Prudential over the period of study.

Further, the p-value (found by using one way ANOVA) clearly depicts that at 5% level of significance, the solvency varies significantly across the size of the life insurers during the period under study.

Table 4: Result of Bonferroni Test for Ratio of Shareholders Fund to Total Assets

Insurer_A	Insurer_B	Gap in Mean (A-B)	Sig.
ICICI Prudential	Kotak Mahindra	-0.0236	1.000
ICICI Prudential	Bharati AXA	-0.6583*	0.000
Kotak Mahindra	Bharati AXA	-0.6346*	0.000

Note: Based on data obtained from IRDAI Handbook on Indian Insurance Statistics *(Various issues)*

Table 4 depicts the result of Bonferroni Post-Hoc test for multiple comparisons in terms of ratio of shareholders' fund to total assets across the sample companies during the study period. It is observed from the p values that mean difference of the ratio is significant between ICICI Prudential and Bharati AXA (0.000). The mean difference of the ratio

between Kotak Mahindra and Bharati AXA (0.000) is also significant. The result of the Bonferroni test points that the mean difference is significant between these two pairs of companies only.

Table 5 reveals the mean of the current ratio three life insurers. The ratio helps to understand the liquidity position of the company, which implies the firm's capacity, and its potential to repay its short-term liabilities with the current assets held by the firm (Kwon and Wolfrom, 2016). Higher the value of this ratio, higher is its liquidity and vice-versa. Over the study period, the mean of current ratio is maximum in case of Bharati AXA (small size) which is followed by Kotak Mahindra (medium size) and ICICI prudential (large size). In other words, liquidity is relatively more in case of small size company that is followed by medium size and large size insurers.

Table 5: Ratio of Current Assets to Current Liabilities

Companies	Mean	SD	F value	p value
ICICI Prudential	0.741	0.226	6.716	0.004
Kotak Mahindra	0.801	0.099		
Bharati AXA	1.121	0.355		

Note: Based on data obtained from IRDAI Handbook on Indian Insurance Statistics *(Various issues)*

Table 5 also portrays the SD of current ratio of three selected life insurers. Out of the three life insurers, categorized on the basis of their size, the standard deviation is the highest for Bharati AXA Life Insurance company which implies that the said ratio is most scattered while Kotak Mahindra has the least standard deviation which indicates that the said ratio is relatively more consistent than that of other two life insurers under consideration. Further, the liquidity varies significantly across the size of the life insurers under consideration as is revealed from table 5.

Table 6 depicts the result of Bonferroni Post-Hoc test for multiple comparisons across the sample companies in terms of current ratio. The p values implies that mean difference of this ratio is significant between ICICI Prudential and Bharati AXA (0.006). The mean difference of the ratio between Kotak Mahindra and Bharati AXA (0.024) is also significant. The result of the Bonferroni test highlights that the mean difference is significant between these two pairs of companies only.

Table 6: Result of Bonferroni Test for the Ratio of Current Assets to Current Liabilities

Insurer_A	Insurer_B	Gap in Mean (A-B)	Sig.
ICICI Prudential	Kotak Mahindra	-0.0605	1.000
ICICI Prudential	Bharati AXA	-0.3805*	0.006
Kotak Mahindra	Bharati AXA	-0.3200*	0.024

Note: Based on data obtained from IRDAI Handbook on Indian Insurance Statistics *(Various issues)*

CONCLUSION

This study compares the performance on financial front of Indian private life insurers, through analyzing their profitability, solvency and liquidity position. Measuring the status of life insurers has gained relevance due to their assured financial risk coverage to the individuals, which demands a close look on the financial reports of the life insurers. Hence various financial ratios have been used to measure the financial performance such as, ratio of Profit before Tax to Net Premium (Profitability ratio), ratio of Shareholders' Fund to Total Assets (Solvency ratio) and ratio of Current Assets to Current Liabilities (Liquidity Ratio). ICICI Prudential's profitability is the highest among the three companies, while Bharati AXA holds the top position in terms of solvency and liquidity both. Also, by employing one-way ANOVA, it has been found that there has been significant difference in profitability, solvency and liquidity of the select life insurers. And lastly by applying Bonferroni Post-Hoc test, a significant difference between the pair of large and small sized companies and medium and small sized companies has been found not only in the field of profitability but in solvency and liquidity as well.

MANAGERIAL IMPLICATIONS OF THE RESEARCH WORK

The element of competition in Indian life insurance sector has gained momentum with the entry of privately owned companies in the Indian market. So, all the life insurers, irrespective of its size, are expected to strive continuously not only to earn profit but also to maintain a sound financial

position and adequate liquidity. The existing research work is expected to throw an insight about the size of life insurers and their performance. In this pursuit, not only profitability ratio, but solvency and liquidity ratios have also been considered to provide a holistic idea about fund management in the competitive regime.

SCOPE FOR FUTURE RESEARCH

1. Similar studies may be conducted by researchers by including some other financial ratios to analyze the performance of life insurers.
2. Future researchers may also conduct studies in similar fashion for other life insurers operational in India as well as abroad.
3. Future researchers may apply similar methodology for analysing financial performance of general insurance companies.

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