

Impact of Supervisory Interference on the Profitability of Life Insurance Companies – (An Analytical Study)

Author

Anshuman Trivedi¹, Shailesh Kumar Singh²

¹(Student/Department of Commerce & Business Management/Maharishi University of Information Technology (MUIT)/Lucknow (U.P)/India)

²(Research Scholar/Department of Commerce & Business Management, Maharishi University of Information Technology (MUIT), Lucknow (U.P)/India)

Abstract

India is the second most populous country in the world, whose rapidly developing economy, is widening the gap between rich and poor. Insurance & Microfinance allows the poor to get the loans; they need to save, invest, and create a sustainable profitability & lifestyle of financial independence and growth.

Life insurance in India is a growth-oriented industry. In the year 2000, life insurance industry has been liberalized after more than fifty years of monopoly with Life Insurance Corporation of India. There are twenty four life insurance companies operating in India at present (IRDAI, Annual Report-2013-14). During the period of fourteen years after liberalization, private life insurers have launched many innovations in the industry and it is at this juncture it has become imperative to study the profitability performance of these companies. Thirteen life insurance companies have been selected from the Annual Report of IRDAI, 2013-14 for the purpose of study which are fully in operation for ten years from 2004-05 to 2013-14. The study finds that uncontrolled volumes of underwriting losses are being incurred by the insurers in the life insurance sector in our country. The study also finds that there has been a tendency to offset underwriting losses by investment income by the select life insurance companies in the current fluctuating market which is a very risky insurance management practices in India. As a result, life insurance companies are required to pay more attention on efficient underwriting; otherwise their sustainability in the market will be questionable. However, underwriting losses can be minimized if the insurance regulator makes proper risk management practices mandatory.

Key words: *Investment Income, Operating Expenses, Net Premium, Underwriting Income, Operating Profit*

1. Introduction

The life insurance business has taken its real shape in India when the IRDAI (Insurance Regulatory Development Authority of India) has been set up in the year 2000 and the monopoly business right of LIC in life insurance is abolished. The Malhotra Committee on reform in the insurance sector has suggested for co-existence of both the public company and the private companies side by side and the Life Insurance Corporation of India is now facing competition from Private Life Insurance Companies. As a result of entry of private life insurance companies in India, the industry has made a rapid growth. However, because of stringent regulations with respect to solvency margin and investment rules protecting the interest of the policyholders and shareholders imposed by IRDAI, it has become imperative to have a detailed study of the impact of supervisory interference on the profitability of life insurance companies in India.

2. Review of Literature

Profit is an absolute term whereas profitability is a relative concept (Trivedi, 2010). Profitability of a firm can be measured by its profitability ratios. Profitability ratios can be determined on the basis of either sales or investments. These ratios consist of (i) income ratios, (ii) expense ratios and (iii) profit margin ratios in relation to sales or investments. When profit margin is expressed

against sales, it is known as operating profit ratio (Khan and Jain, 2001). In life insurance business, premium is regarded as sales. Earning in the form of underwriting income (first) and investment income (second) than expenses disbursed and losses incurred is the main objective of any life insurance business. Hussain, (2010) has evaluated the growth of LIC during post privatization period from 2004-05 to 2008-09 where parameters used are premium, commission, operating expenses etc. and the analysis finds that the increase in commission expenses being lower than the increase in gross premium and other operating expenses compared to premium underwritten is on the higher side. Modi (2011) has made a study on four non-life insurance companies in India relating to underwriting performance, management soundness, investment performance by analyzing various ratios and the outcome of the study is that the overall management and profitability of all the companies under the study period has improved substantially. Jain, (2013) conducts a study on the performance of life insurance industry in India after 2008 world economic crisis concerning total premium, operating expense ratio, market share and the study reveals that many life insurance companies suffering losses are closed down and new companies are taking less interest in India due to economic slowdown. Bhatt, (2012) has analyzed the profitability of LIC after liberalization policy in India taking the parameters as premium, no. of policies, claims settlement, assets growth etc. and found that the quantum of business of life insurance has increased more than ten times in the span of 20 years. Gulati and Jain, (2011) have studied the comparative performance of all players of Indian life insurance industry relating to agency force, premium income, no. of policies etc. and have found that the entry of private players in life insurance sector has resulted in a drop of market share of LIC. Tiwari, et.al (2012) has studied the trend of total premium; total no. of policies, total income, market share etc. and the findings reveal that the life insurance industry has made a remarkable growth of premium after the entry of private players and LIC is still better than private life insurers.

From the above review of literature, it appears that studies towards the profitability of life insurance companies were confined mainly to premium income trends but so-far as the analysis of various profitability ratios and their inter relation with profitability performance are concerned, the researchers paid less attention. The present study will fill this gap.

3. Objective of The Study

The objective of the study is to measure and test the profitability performance of selected life insurance companies in India.

4. Hypotheses of The Study

- 1) There is no significant difference in the ratio of underwriting income to net premium of select life insurance companies in India during the study period.
- 2) There is no significant difference in the ratio of income from investment to total investments of select life insurance companies in India during the study period.
- 3) There is no significant difference in the ratio of operating income to net premium of select life insurance companies in India during the study period.
- 4) There is no significant difference in the ratio of benefits paid to net premium of select life insurance companies in India during the study period.
- 5) There is no significant difference in the ratio of change in policy liabilities to net premium of select life insurance companies in India during the study period.
- 6) There is no significant difference in the ratio of profit before tax to net premium of select life insurance companies in India during the study period.

5. Period of The Study

The study period of 10 years from 2003-04 to 2012-13 have been selected in order to have a fairly long cyclically well balanced period accepted by most of the researchers for which reasonably homogenous, reliable and up-to-date financial data would be available.

6. Methodology

It is a descriptive and analytical study .The study in completely based on secondary data and the required data for the study is collected from the annual reports of IRDAI. For the analysis of data in the form of various profitability ratios, the statistical tools like average, standard deviation, correlation, ANOVA and post hoc ANOVA have been used.

7. Selection Of Companies For The Study

The universe of the study is all life insurance companies in India. Twellev life insurance companies namely, AVIVA, BAJAJ ALLIANZ, BIRLA SUN LIFE, HDFC STANDARD, ICICI PRUDENTIAL, KOTAK MAHINDRA, MET LIFE, LIC, SBI LIFE, TATA AIG, MAX LIFE and RELIANCE have been selected purposively for the study out of twenty four life insurance companies from the database of IRDAI Annual Report, 2012-13 and these companies are selected on giving due care to their age and longevity for a period more than ten years of existence. Other life insurance companies are not included in our study since the data being available for other life insurance companies are of unequal size i.e., less than 10 years.

List of Indian Life Insurance Companies under the study

S. No	Abbreviation	Name of The Company
1.	AVIVA	Aviva Life Insurance Company
2.	BAJAJ ALLIANZ	Bajaj Allianz Life Insurance Company
3.	BIRLA SUNLIFE	Birla Sun Life Insurance Company
4.	HDFC STANDARD	HDFC Life Insurance Company
5.	ICICI PRUDENTIAL	ICICI Prudential Life Insurance Company
7.	KOTAK MAHINDRA	Kotak Mahindra Life Insurance Company
8.	MET LIFE	Met Life Insurance Company
9.	LIC	Life Insurance Corporation of India
10.	SBI LIFE	SBI Life Insurance Company
11.	TATA AIG	TATA AIA Life Insurance Company
12.	MAX NEW YORK LIFE	Max New York Life Insurance Company
13.	RELIANCE	Reliance Life Insurance Company

8. Data Analysis and Discussion

In the ratio of underwriting income to net premium, the numerator underwriting income is calculated by deducting investment and other income from net profit before tax. This ratio indicates core business performance of life insurance companies which is assessed by the analysis of table no.1and 2.

Table 1: Ratio of Underwriting Income to Net Premium (2003-04 to 2012-2013)

Name of the Company	Average	SD	Pearson’s correlation coefficient between individual Company and Industry Average
AVIVA	-0.350	0.312	.942**
BAJAJ ALLIANZ	-0.155	0.286	.795**
BIRLA SUNLIFE	-0.233	0.230	.700*
HDFC STANDARD	-0.219	0.261	.786**
ICICI PRUDENTIAL	-0.269	0.342	.807**
ING VYSYA	-0.359	0.259	.974**
KOTAK MAHINDRA	-0.230	0.216	.890**
MET LIFE	-0.296	0.304	.829**
LIC	-0.444	0.092	.733*
SBI LIFE	-0.159	0.200	.769**
TATA AIG	-0.239	0.217	.790**
MAX NEW YORK LIFE	-0.274	0.330	.804**
RELIANCE	-0.592	0.817	.750*
Industry Average	-0.294	0.241	-

Source : Based on data obtained from Annual Report of IRDA (Various issues)

Note:-**Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Table1 indicates that the industry average of underwriting income to net premium has been - 0.294 and BAJAJ ALLIANZ, HDFC STANDARD, BIRLA SUNLIFE, KOTAK MAHINDRA, SBI LIFE, TATA AIG and MAX NEW YORK LIFE maintain average ratios above industry average. The average underwriting income ratios of rest of the companies under the study are below the industry average except MET LIFE which is slightly higher. Table shows that ratios are highly fluctuating in case of RELIANCE while it is very low in case of LIC compared to all the companies under the study.

Table 1 shows high degree of positive correlation of the ratio of underwriting income to net premium between the industry average and the life insurance companies under the study. Correlation is significant at 1% and 5% level.

Table 2: One Way ANOVA of the ratio of Underwriting Income to Net Premium

Sources of Variation	Sum of Squares	d.f.	Mean Square	F	P value.
Between Groups	1.739	12	.145	1.133	.340
Within Groups	14.957	117	.128	-	-
Total	16.696	129	-	-	-

The above table indicates that the differences in underwriting income to net premium are not significant as the p-value is 0.340.

Investment performance is assessed by the ratio of income from investment to total investment (shareholders’ investment plus policyholders’ investment) and is very important from life insurance companys’ point of view since life insurance companies’ function to a large extent as asset managers. The performance have been analysed with the help of table no.3 and 4.

Table 3: Ratio of Total Income from Investment to Total Investment (2003-04 to 2012-2013)

Name of the Company	Average	SD	Pearson’s correlation coefficient between individual Company and Industry Average
AVIVA	0.501	0.990	.983**
BAJAJ ALLIANZ	0.256	0.706	.989**
BIRLA SUNLIFE	0.567	0.790	.985**
HDFC STANDARD	0.207	0.386	.994**
ICICI PRUDENTIAL	0.489	1.071	.984**
ING VYSYA	0.141	0.225	.976**
KOTAK MAHINDRA	0.266	0.291	.945**
MET LIFE	0.189	0.411	.989**
LIC	0.095	0.017	.921**
SBI LIFE	0.116	0.173	.981**
TATA AIG	0.131	0.223	.977**
MAX NEW YORK LIFE	0.138	0.162	.987**
RELIANCE	0.446	1.278	.981**
Industry Average	0.272	0.508	-

Source : Based on data obtained from Annual Report of IRDA (Various issues)

Note: **. Correlation is significant at the 0.01 level (2-tailed).

Table 3 shows that the investment income ratios of HDFC STANDARD, ING VYSYA, KOTAK MAHINDRA, MET LIFE, LIC, SBI LIFE, TATA AIG and MAX N LIFE during the study period are below the industry average while these are above industry average in case of AVIVA, BAJAJ ALLIANZ, BIRLA SUN LIFE, ICICI PRUDENTIAL and RELIANCE. So far as variation of income is concerned, LIC is less fluctuating. Highest variation of investment income is observed in case of RELIANCE followed by BAJAJ ALLIANZ, AVIVA, and BIRLA SUN LIFE.

Table 3 shows high degree of positive correlation of the ratio of underwriting income to net premium between the industry average and the life insurance companies. Correlation is significant at 1% level.

Table 4: One Way ANOVA of the ratio of Total Income from Investment to Total Investment

Sources of Variation	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.388	12	.282	.607	.833
Within Groups	54.418	117	.465	-	-
Total	57.806	129	-	-	-

The above table indicates that the differences in underwriting income to net premium are not significant as the p-value is 0.833.

The ratio of operating expenses (Commission, employees’ remuneration and benefits and other management expenses) to net premium reflects managerial efficiencies in operating the life insurance business and have been assessed by the table no.5, 6 and 7.

Table 5: Ratio of Operating Expenses to Net Premium (2003-04 to 2012-2013)

Name of the Company	Average	SD	Pearson's correlation coefficient between individual Company and Industry Average
AVIVA	0.555	0.336	.997**
BAJAJ ALLIANZ	0.355	0.167	.914**
BIRLA SUNLIFE	0.329	0.042	.844**
HDFC STANDARD	0.310	0.099	.836**
ICICI PRUDENTIAL	0.243	0.064	.936**
ING VYSYA	0.542	0.288	.960**
KOTAK MAHINDRA	0.345	0.142	.944**
MET LIFE	0.720	0.499	.965**
LIC	0.190	0.052	.890**
SBI LIFE	0.184	0.056	.914**
TATA AIG	0.425	0.125	.859**
MAX NEW YORK LIFE	0.514	0.204	.964**
RELIANCE	0.613	0.457	.976**
Industry Average	0.409	0.185	-

Source : Based on data obtained from Annual Report of IRDA (Various issues)

Note:-**. Correlation is significant at the 0.01 level (2-tailed).

The table 5 shows that only seven companies could maintain this ratio below industry average namely, LIC, SBI, BAJAJ ALLIANZ, BIRLA SUNLIFE, HDFC STANDARD, ICICI PRU and KOTAK MAHINDRA. The average ratios of rest of the companies are below industry average. SDs of different companies indicates that the ratio is less fluctuating for LIC and SBI LIFE and highly unsteady for RELIANCE, MET LIFE, ING VYSYA and AVIVA.

Table 5 reveals that there is high degree of positive correlation of the ratio of operating expenses to net premium between the industry average and the life insurance companies under the study. Correlation is significant at 1% level.

Table 6: One Way ANOVA of the ratio of Operating Expenses to Net Premium

Sources of Variation	Sum of Squares	d.f	Mean Square	F	P value.
Between Groups	3.382	12	.282	4.222	.000
Within Groups	7.810	117	.067	-	-
Total	11.192	129	-	-	-

The above table indicates that the differences in underwriting income to net premium are not significant as the p-value is 0.000.

Table 7: Post Hoc Tests-The ratio of Operating Expenses to Net Premium

Tukey HSD

Name of Co (I)	Name of Co (J)	Mean Difference(I)-(J)	Sig.
METLIFE	HDFCSTANDARD	.40987*	.031
METLIFE	ICICIPRUDENTIAL	.47666*	.004
METLIFE	LIC	.52933*	.001
METLIFE	SBILIFE	.53598*	.001
RELIANCE	LIC	.42310*	.022
RELIANCE	SBILIFE	.42976*	.018

Examination of the Tukey HSD post hoc analysis reveals that there are six mean comparisons that are significantly different. All these differences are statistically significant at 0.05 levels. The ratio of benefits paid (claims, surrenders, annuities, survival benefits etc.) to net premium indicates the policy underwriting performance of life insurance companies and will be explained with table no.8 and 9.

Table 8: Ratio of Benefits Paid to Net Premium (2003-04 to 2012-2013)

Name of the Company	Average	SD	Pearson's correlation coefficient between individual Company and Industry Average
AVIVA	0.266	0.304	.990**
BAJAJ ALLIANZ	0.342	0.404	.994**
BIRLA SUNLIFE	0.221	0.217	.990**
HDFC STANDARD	0.153	0.128	.914**
ICICI PRUDENTIAL	0.308	0.316	.966**
ING VYSYA	0.197	0.214	.994**
KOTAK MAHINDRA	0.223	0.202	.972**
MET LIFE	0.137	0.174	.991**
LIC	0.451	0.101	.951**
SBI LIFE	0.184	0.211	.974**
TATA AIG	0.157	0.201	.970**
MAX NEW YORK LIFE	0.130	0.115	.989**
RELIANCE	0.275	0.414	.960**
Industry Average	0.234	0.225	-

Source : Based on data obtained from Annual Report of IRDA (Various issues)

Note: **. Correlation is significant at the 0.01 level (2-tailed). The table 8 shows that the average underwriting risk ratio of LIC is 0.451, which is much higher compared to rest of the companies

Table 9: One Way ANOVA of the Ratio of Benefits Paid to Net Premium

Under the study and is above industry average. It is moderately high in case of ICICI PRU, BAJAJ ALLIANZ, AVIVA and RELIANCE and the average ratio of these companies are also above industry average. However, these ratios are much lower for rest of the companies which are below the industry average of 0.234. Highest variations in the ratio are observed in

RELIANCE, BAJAJ ALLIANZ, AVIVA and ICICI PRUDENTIAL compared to other companies under the study.

Table 8 shows high degree of positive correlation of the ratio of benefits paid to net premium between the industry average and the life insurance companies under the study. Correlation is significant at 1% level.

Sources of Variation	Sum of Squares	df	Mean Square	F	P value.
Between Groups	1.039	12	.087	1.242	.263
Within Groups	8.158	117	.070	-	-
Total	9.197	129	-	-	-

The above table indicates that the differences in underwriting income to net premium are not significant as the p-value is 0.263.

The ratio of change in policy liabilities (actuarial estimation of policy liabilities of current year minus last year) indicates actuarial efficiencies of life insurance companies which have been assessed by table no.10 and 11.

Table 10: Ratio of Change in Life Policy Liabilities to Net Premium (2003-04 to 2012-2013)

Name of the Company	Average	SD	Pearson's correlation coefficient between individual Company and Industry Average
AVIVA	0.520	0.299	.960 ^{**}
BAJAJ ALLIANZ	0.452	0.441	.966 ^{**}
BIRLA SUNLIFE	0.678	0.282	.974 ^{**}
HDFC STANDARD	0.744	0.275	.865 ^{**}
ICICI PRUDENTIAL	0.714	0.392	.950 ^{**}
ING VYSYA	0.615	0.259	.981 ^{**}
KOTAK MAHINDRA	0.626	0.195	.875 ^{**}
MET LIFE	0.655	0.239	.865 ^{**}
LIC	0.802	0.097	.917 ^{**}
SBI LIFE	0.790	0.240	.975 ^{**}
TATA AIG	0.642	0.245	.868 ^{**}
MAX NEW YORK LIFE	0.529	0.132	.903 ^{**}
RELIANCE	0.555	0.424	.898 ^{**}
Industry Average	0.640	0.251	-

Source : Based on data obtained from Annual Report of IRDA (Various issues)

Note: **. Correlation is significant at the 0.01 level (2-tailed).

The above table indicates that on an average during the study period, about 80% of net premium income is taken as a charge against profit as change in policy liabilities by the actuarial experts of LIC and SBI LIFE followed by HDFC STANDARD as 74% and ICICI PRUDENTIAL as 71% respectively which are much on the higher side and above the industry average of 64%. The average ratios of all other companies under the study are below the industry average indicating poor actuarial efficiencies of these companies. The ratio is highly unsteady in RELIANCE and highly steady in case of LIC.

Table-10 shows high degree of positive correlation of the ratio of change in policy liabilities to net premium between the industry average and the life insurance companies under the study. Correlation is significant at 1% level.

Table 11: One Way ANOVA of ratio of Change in Life Policy Liabilities to Net Premium

Sources of Variation	Sum of Squares	df	Mean Square	F	P value.
Between Groups	1.371	12	.114	1.238	.266
Within Groups	10.793	117	.092	-	-
Total	12.164	129	-	-	-

The above table indicates that the differences in underwriting income to net premium are not significant as the p-value is 0.266.

The ratio of profit before tax to net premium indicates profit achievement and the performance assessment is reflected in table no.12, 13 and 14.

Table 12: Ratio of Profit before Tax to Net Premium (2003-04 to 2012-2013)

Name of the Company	Average	SD	Pearson's correlation coefficient between individual Company and Industry Average
AVIVA	-0.196	0.233	.983**
BAJAJ ALLIANZ	0.031	0.098	.841**
BIRLA SUNLIFE	-0.048	0.091	.650*
HDFC STANDARD	-0.047	0.051	.642*
ICICI PRUDENTIAL	-0.035	0.101	.888**
ING VYSYA	-0.197	0.201	.984**
KOTAK MAHINDRA	-0.069	0.195	.953**
MET LIFE	-0.138	0.229	.691*
LIC	0.007	0.001	-.747*
SBI LIFE	0.007	0.035	.966**
TATA AIG	-0.073	0.110	.726*
MAX NEW YORK LIFE	-0.145	0.330	.969**
RELIANCE	-0.425	0.758	.971**
Industry Average	-0.102	0.170	-

Source : Based on data obtained from Annual Report of IRDA (Various issues)

Note: **. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

The table-12 shows that BAJAJ ALLIANZ, BIRLA SUN LIFE, HDFC STANDARD, ICICI PRUDENTIAL, KOTAK MAHINDRA, LIC, SBILIFE and TATA AIG have maintained the average ratio of profit before tax to net premium below the industry average. However, it is above industry average in case of AVIVA, ING VYSYA, MET LIFE, MAX N Y LIFE and RELIANCE. The standard deviations of RELIANCE, MAX N Y LIFE, MET LIFE, AVIVA and

ING VYSYA are 0.758, 0.330, 0.229 and 0.233 respectively and this implies that the ratios of profit before tax to net premium of these companies are very fluctuating.

Table 12 reveals that there is high degree of positive correlation of the ratio of profit before tax to net premium between the industry average of AVIVA, BAJAJ ALLIANZ, ICICI PRUDENTIAL, ING VYSYA, KOTAK MAHINDRA, SBI LIFE, MAX N Y LIFE and RELIANCE. There is moderate degree of positive correlation between industry average and the average operating profit ratio of BIRLA SUN LIFE, HDFC STANDARD, MET LIFE and TATA AIG. And there is negative correlation between the average ratio of profit before tax to net premium of LIC and industry average and Correlation is significant at 1% and 5% level.

Table 13: One Way ANOVA of the ratio of Profit before Tax to Net Premium

Sources of Variation	Sum of Squares	d.f.	Mean Square	F	P value.
Between Groups	1.791	12	.149	1.914	.039
Within Groups	9.124	117	.078	-	-
Total	10.916	129	-	-	-

The above table indicates that the differences in underwriting income to net premium are not significant as the p-value is 0.039. Since the value is more than 0.05, so we conclude that there is significant difference in the ratio of underwriting income to net premium of select life insurance companies under the study at 5% significance level

Table 14: Post Hoc Tests-The ratio of Profit before Tax to Net Premium

Tukey HSD

Name of Co (I)	Name of Co (J)	Mean Difference(I)-(J)	Sig.
RELINANCE	BAJAJ ALLIANZ	0.45597	0.022
RELINANCE	SBILIFE	0.43249	0.040
RELINANCE	LIC	0.43205	0.040

Examination of the Tukey HSD post hoc analysis reveals that there are three mean comparisons as above that are significantly different. All these differences are statistically significant at 0.05 level.

9. Findings of The Study

- 1) The study does not find any significant difference in the ratio of underwriting income to net premium across the select life insurance companies under the study.
- 2) The analysis of variance indicates that there is no significant difference in the ratio of income from investment to total investments of select life insurance companies in India during the study period.
- 3) ANOVA study reveals that there is significant difference in the ratio of operating income to net premium of select life insurance companies in India during the study period.
- 4) Analysis does not find any significant difference in the ratio of benefits paid to net premium across the select life insurance companies in India during the study period.
- 5) Analysis of the ratio of change in policy liabilities to net premium indicates that there are no significant differences observed in the ratio of change in policy liabilities to net premium.

- 6) Finally, ANOVA test reveals that there is significant difference in the ratio of profit before tax to net premium (operating profit ratio) of select life insurance companies in India during the study period. However, all thirteen companies have enjoyed the taste of positive operating profit ratio during the year 2012-13 which is good sign to the growth of life insurance industry in India if they maintain the pace. Besides, the industry averages of ten years' study show an increasing trend of profitability of the life insurance industry in India and this indicates that the life insurance industry is moving towards sound financial position.

10. Conclusion

The study led to the conclusion that uncontrolled volumes of underwriting losses are being incurred by the insurers in the life insurance sector in our country. The tendency to grab more new business makes the companies ignoring the proper risk selection procedure leading to poor risk evaluation and finally incurring an unexpected volume of underwriting losses. The tendency to offset underwriting losses by investment income in the current fluctuating market is a very risky insurance management practices in India. As a result, life insurance companies are required to pay more attention on efficient underwriting; otherwise their sustainability in the market will be questionable. However, underwriting losses can be minimized if the insurance regulator makes proper risk management practices mandatory.

References

- [1]. Das, S.C. (2007), 'Cost Management Practices in Non-Life Insurance Companies-A Comparative Study', "The Journal" of the Insurance Institute of India, Vol. No. XXXIII, Jan-June, pp.3-8.
- [2]. Bhatt, Shilpa R (2012), "A Study of Financial Performance of Life Insurance Corporation of India", A PhD Thesis from Sourashtra University, Available at (<http://etheses.saurashtrauniversity.edu/id/eprint/609>), Retrieved on 09-11-2013.
- [3]. Gulati, Neelam C and Jain, C M (2011), 'Comparative Analysis of the Performance of all the Players of the Indian Life Insurance Industry', VSRD International Journal of Business and Management Research, Vol. I (8), pp.561-569, Available at (www.vsrjournals.com), Retrieved on 10-09-2013.
- [4]. Hussain, Shahid (2010), "Growth of LIC of India During Post Privatization Period", SMS Varanasi, Management Insight, Vol. VI, No. 2, Dec, pp.59-64, Available at (www.inflibnet.ac.in/ojs), Retrieved on 28-09-2013.
- [5]. IRDAI Annual Report (2004-05 to 2012-13), Available at (www.irda.gov.in), Retrieved on 01-01-2014
- [6]. Jain, Yogesh (2013), "Economic Reforms and World Economic Crisis: Changing Indian Life Insurance Market Place", IOSR Journal of Business and Management, Volume 8, issue-I, Jan-Feb, pp.106-115, Available at (www.iosrjournal.org), Retrieved on 01-01-2014
- [7]. Khan, M Y and Jain P K (2001), "Management Accounting", Tata McGraw-Hill Publishing Company Limited, New Delhi, p 4.17
- [8]. Modi, Manisha S (2011) "A Comparative Performance Study of General Insurance Public Sector Companies of India", A PhD Thesis from Saurashtra University, Available at (<http://etheses.saurashtrauniversity.edu>), Retrieved on 07-08-2013.
- [9]. Tiwari, Anshuja & Yadav, Babia (2012), "Analytical Study of Indian Life Insurance Industry in Post Liberalization", International Journal of Social Science Tomorrow, Vol.1 No. 2, April, pp.1-10, Available at (www.ijssst.com), Retrieved on 28-12-2013.
- [10]. Trivedi, Shilpa M (2010), "An analysis of financial performance of State Road Transport Corporation in Gujrat", A PhD Thesis from Sourashtra University, Available at (<http://etheses.saurashtrauniversity.edu/id/eprint/609>), Retrieved on 09-11-2013.