An Empirical Study On Performance Of Unit Linked Pension Plans Of Selected Private Sector Life Insurance Companies

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INTRODUCTION

Retirement planning is a universal term today. The need to accumulate for the future and to make sure that a good life follows after retiring from work is the central reason that gives rise to the entire concept of retirement planning. Though people plan for their retirement by saving some money, it might lead to dearth of funds during the critical years. It is at such a point of time that the advantage of retirement planning becomes obvious. The increasing life span, impact of inflation, falling rate of fixed return, self dependence, breakdown of joint family system, unintended emergencies, increasing medical costs, and coping with family health problems are the major reasons which add to the magnitude of retirement planning. Indians are very much clear so far as their pension funds are concerned. Pension funds are used as a tool by them to fulfill their retirement needs. French insurance major AXA, with its global research on retirement revealed that Indians find life insurance the most suitable retirement planning tool followed by bank deposits. As much as 75% of the working population and 55% of the retired respondents in India cited life insurance as their primary tool for accumulating retirement funds. Hence, the trust and dependence of Indians on the life insurance companies for accumulation of funds is obvious.

In India, pension plans are offered by life insurance companies. Pension plans from life insurance companies not only facilitate an individual to save for retirement, but also help to create regular retirement income. Also, with a large choice of pension plans, it is important that investment prospects of pension plans are compared.

OBJECTIVES AND HYPOTHESIS

The specific objectives of the study are as follow:-

- To analyse the diverse charges such as premium allocation charge, fund management charge, policy administration charge, surrender charge etc. of the unit linked pension funds of the selected pension plans.
- To evaluate the projected fund values of selected pension plans.
- To compare the performance of pension funds-Growth of the selected insurance companies in comparison to its peer groups.
- To analyse the performance of pension funds-Growth in comparison to its benchmark i.e. BSE 100.
- To compare the performance of pension funds and find out the best performing pension fund amongst the selected insurance players.

The hypotheses developed for the study are as follows:

- There is no significant difference in the performance of the pension funds-growth of the selected insurance companies.
- There is no significant difference in the average performance of the selected pension funds-growth in comparison to its benchmark-BSE 100.

LITERATURE REVIEW

Gary W. Selnow (2003) examined various approaches to promote retirement investment. His study found that automatic enrollment has a good chance of overcoming the natural impediments to wise decisions about retirement investments.

Douglas A. Hershey and Hendrik P. Van Dalen (2006) in the study explored the psychological mechanisms that underlie the retirement planning and saving tendencies of Dutch and American workers. The research suggests that policy analysts should take into account both individual and cultural differences in the psychological predispositions of workers when considering pension reforms that stress individual responsibility for planning and saving.

M. Kabir Hassan and Dr. Shari Lawrance(2007) conducted a survey on "An Analysis of Financial Preparation for Retirement". In this study, the researcher analyzes the financial preparation for retirement. Regarding retirement plan contributions, the findings indicate significant positive effects regarding income and

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womanhood. Education is significant and positive as a predictor for the decision to contribute to a pension plan for women in their thirties, thus supporting the hypothesis of a significant positive relationship between education and pension plan contributions. Conversely, the findings do not support the hypothesis of household size as a predictor of retirement plan preparation.

A study paper by the **Federation of Indian Chambers of Commerce and Industry and accounting firm KPMG (2007)** on pension reforms in India holds that after reforms, the pension system in India will push the market to around Rs 4,06,400 crore in 2025.Without reforms, the size of the market will touch Rs 1,80,800 crore in 2025. According to the study paper, there is a need to push the reforms in the pension sector to create a system that is suitable and that leaves the state's resources to be diverted towards other sectors like education and health. The study has asked for international investment in a portfolio since it offers better diversification of pension portfolio and higher returns.

Subhasis Ray and Shahid Ali (2008) conducted a gap analysis between customer's expectations and current provisions of Indian life insurance industry. The study made an attempt to identify the gap between available and desired features in terms of existing products and services in life insurance. They investigated reasons for buying life insurance and found preferred tenure and age cut off for entering into a life insurance.

Devasenathipathi, Saleendran and Shanmugashunaram (2008) conducted a research on consumer preference and comparative analysis of all life insurance companies. The study found that with the fast changing liberalization, globalization and privatization policies, the changing and growing needs and demands of people have made the insurance industry more competitive. Both public and private players now offer greater choice in terms of products and services.

Gireesh Kumar and Eldhose KV(2008) in his study on Customer Perceptions on Life Insurance Services : A Comparative Study of Public and Private Sectors observes that the insurance industry landscape in India has dramatically changed. The study revealed that consequent to the implementation of government policies on globalization and liberalization, the consumers have become more critical of the quality services. In such an environment, it is time that the industry should pay more attention to quality services so that the market opportunities can be tapped.

T.S. Rama Krishna Rao (2008) points out that insurance is no longer an unexciting business and the insurance advisor is not an apologetic salesman. The insurance market in India has really come to life. Prior to privatization, the insurance market in our country grew at an average rate of 10-15%. In the last seven years, the growth has been of the order of 20-25% plus. Much of this growth has come from the private sector companies. The greatest fallout of privatization in the insurance sector has been the perceptible shift from the sellers' to the buyers' market.

METHODOLOGY

The present study evaluates the performance of the selected pension plans of the three leading private sector insurance companies. The insurance companies selected for the study are HDFC SL, ICICI Pru, and Bajaj Allianz. There are two types of pension plans offered by insurance companies i.e. Participating Pension Plans and Unit Linked Pension Plans. This study evaluates the performance of Unit Linked Pension Plans i.e. Pension fund-growth of: HDFC SL Growth Fund Pension, ICICI Pru Maximiser Fund, Bajaj Allianz equity index fund. The study is primarily based upon the published data. The main sources of secondary/published data are books, journals, brochures and benefit illustrations obtained through financial advisors and websites of the selected insurance companies. The study evaluates the performance of the selected pension funds for the F.Y. 2004-05, F.Y. 2005-06, F.Y. 2006-07, F.Y. 2007-08, F.Y. 2008-09 i.e. upto a part of the third quarter i.e. 30th Nov. 2008 and since inception returns.

RESULTS

1. ANALYSIS OF CHARGES: Unit Linked Pension Plans are similar to Unit Linked Insurance Plans with respect to the charges in the plan. These plans consist of various charges such as policy administration charge, premium allocation charge, fund management charge, service tax, education cess etc. The analysis of various charges of selected pension funds is elaborated as under:

PREMIUM ALLOCATION CHARGE (PAC)

PAC is a premium based charge. It may vary by product, policy year, premium size, premium frequency and premium payment method. PAC is charged from the amount of premium, and the remainder amount is invested to buy units of the selected plan. Table 1 highlights the premium allocation charges of the selected pension plans.

TABLE 1: PREMIUM ALLOCATION CHARGE (%AGE)

Year	HDFC SL Growth Fund Pension	ICICI Pru Maximiser Pension	Bajaj Allianz Equity Index Pension
1	5-25	14-20	8-26
2	5-25	9	2
3	1	1	2
4-10	1	1	2
11-20	1	0	2

Analysis of the Table 1 reveals that the premium allocation charges of the selected companies are very high for the first year of the policy. For a long term investment, ICICI Pru Life Time Pension plan is the best as there is no premium allocation charge in its pension plan from 10 year onwards. However, Bajaj Allianz and HDFC SL deduct allocation charges at the rate of 2 percent and 1 percent respectively.

TOP UP ALLOCATION CHARGE

Top up charges are levied on the extra investment amount in addition to the regular premium. Table 2 shows the top up charges and top up allocation as a percentage of the top up amount.

TABLE 2: TOP UP CHARGES AND TOP UP ALLOCATION (%age)

Fund Name	Top Up Charge (%age)	Top Up Allocation(%age)
HDFC SL Growth Fund Pension	2.5	97.5
ICICI Pru Maximiser Pension	1	99
Bajaj Allianz Equity Index Pension	2	98

Analysis of the table reveals that the pension plan of ICICI Pru is the best with respect to top up allocation rate as well as top up allocation charges. Its top up allocation rate is highest among the selected pension funds.

FUND MANAGEMENT CHARGE (FMC)

This is a charge levied as a percentage of the value of assets and deducted at the time of computation of daily unit prices. In the long term, the key to building a great maturity value is a low FMC. Table 3 depicts the fund management charge of the pension funds of the selected companies.

TABLE 3: FUND MANAGEMENT CHARGE (% AGE P.A.)

Parameter	HDFC SL Growth Fund Pension	ICICI Pru Maximiser Pension	Bajaj Allianz Equity Index Pension
Charges	1.50	1.50	2.75

Analysis of Table 3 depicts that the Fund Management Charges of the pension funds vary between 1.50 to 2.75 percent. FMC charge is the highest (2.75 percent) for the pension plan of Bajaj Allianz whereas it is 1.50 percent for ICICI Pru and HDFC SL Growth's pension plan.

POLICY ADMINISTRATION CHARGE

It is a flat charge levied to cover regular administrative costs. A certain fixed amount on per month basis is charged as policy administration charge by the insurance company. This charge may also be increased by the insurance company. Table 4 shows the policy administration charges on the pension funds of the selected insurance companies.

TABLE 4: POLICY ADMINISTRATION CHARGE (Rs. Per Month)

Pension Fund	Charges Per Month (Rupees)
HDFC SL Growth Fund Pension	20
ICICI Pru Maximiser Pension	40
Bajaj Allianz Equity Index Pension	50

Analysis of Table 4 shows that policy administration charges vary between Rs 20-50 per month for the pension funds of the selected insurance companies. Hence, this charge is lowest for pension fund of HDFC SLI and maximum for pension fund of Bajaj Allianz.

SWITCHING CHARGE

Switch charge is an option which allows the policy holder to shift the funds from one fund to another as per the financial goals and market conditions. Table 5 depicts the switching charges of the pension funds of the selected insurance companies.

TABLE 5: SWITCHING CHARGE

Fund Name	No. of Free Switches	Switching Charge (charges per switch in rupees)
HDFC SL – Unit Linked Insurance Pension	12	250
ICICI Pru-Life Time Pension	4	100
Bajaj Allianz- Unit Gain Easy Pension Plan Regular Premium	3	100

The analysis of Table 5 reveals that the number of free switches between various investment options of selected pension funds ranges between 3-12. It is maximum/highest for the pension fund of HDFC SL and lowest for the pension fund of Bajaj Allianz. The charges for switching, thereafter, range between Rs 100- 250. ICICI PRU and Bajaj Allianz pension charge is Rs 100 per switch. Hence, switching charges are highest i.e. Rs 250 for the pension fund of HDFC SL.

SURRENDER CHARGE

A surrender charge is applicable when a policy holder surrenders the pension plan before completion of the minimum policy term. This charge as a percentage of the annual policy premium for the selected pension plans is shown in the Table 6.

TABLE 6: SURRENDER CHARGES OF THE SELECTED PENSION PLANS (%Age)

Parameter	HDFC SL – Unit Linked Insurance Pension	ICICI Pru-Life Time Pension	Bajaj Allianz- Unit Gain Easy Pension Plan Regular Premium
1	50	100	100
2	50	25	100
3	50	4	100
4	0 (Yr 4 onwards: Nil)	2	5
5	0	0 (Yr 5 onwards Nil)	2
6+	0	0	0 (Yr 6 onwards Nil)

Analysis of the table reveals that the surrender charges of Bajaj Allianz- Unit Gain Easy Pension Plan Regular Premium are highest amongst the selected pension funds. On the basis of comparison of surrender charge, it can be stated that the pension plan of ICICI Pru is comparatively more realistic as compared to its peer groups.

ANALYSIS OF PERFORMANCE

This section relates to the analysis of performance of the pension plans of the selected insurance companies. It compares the performance of the HDFC Unit Linked Equity Pension, ICICI Pru Life Time Pension, and Bajaj Allianz-Unit Gain Easy Pension Plan Regular Premium. The performance of the selected pension plans has been evaluated by classifying it into the following three categories:

(A) Analysis of Projected Fund Values

(B) Analysis of performance of Growth Funds

(C) Testing Significance of Difference in Performance of Selected Pension Funds

(A) ANALYSIS OF PROJECTED FUND VALUES

Projected fund values are the values based on assumed investment return of 6% p.a. and 10% p.a as per IRDA guidelines. These returns are non-guaranteed policy values. The investment risk in the investment pension plans is borne by the policyholder. Table 7 shows the projected fund values based on assumed investment return of annual premium of 6 percent and 10 percent. The projected figures are based on the benefit illustrations for a premium amount of Rs 30000 p.a., and a policy term of 20 years.

TABLE 7:PROJECTED FUND VALUES BASED ON ASSUMED INVESTMENT RETURN OF 6% P.A. AND 10 % P.A.

(Annual Premium Rs 30000, Term 20 Years, Regular Premium)

Sr.No.	Life Insurance Company	Fund Value at Maturity* (in Rs) at 6% p.a.	Fund Value at Maturity* (in Rs) at 10% p.a.
1	HDFC SL Growth Fund Pension	885469	1386807
2	ICICI Pru Maximiser Pension	930397	1467445
3	Bajaj Allianz Equity Index Pension	890404	1409762

Source: Benefit illustrations of the selected pension plans

*Non-Guaranteed Returns

The analysis of Table 7 depicts that the projected returns @ 6% p.a. are Rs. 885469, Rs. 930397 and Rs. 890404 for the selected pension plans of HDFC SL, ICICI Pru, and Bajaj Allianz respectively. Further, on the basis of projected returns of 10% p.a., the fund values for the selected pension plans of HDFC SL, ICICI Pru, and Bajaj Allianz are Rs. 1386807, Rs. 1467445, and Rs. 1409762. On the basis of projected returns, it can be clearly stated that projected returns are highest for the pension plan of ICICI Pru and lowest for the pension plan of HDFC SL.

(B) ANALYSIS OF PERFORMANCE OF PENSION FUNDS-GROWTH

This section evaluates the performance of the growth funds of the selected equity linked pension plans of the selected insurance companies. Table 8 depicts the performance of the selected pension funds-growth:

TABLE 8: COMPARISON OF PERFORMANCE OF SELECTED PENSION FUNDS-GROWTH

Period	Period From	Period To	HDFC SL Growth Fund Pension	ICICI Pru Maximiser Pension	Bajaj Allianz Equity Index Pension	Benchmark-BSE 100
F.Y. 2004-05*	01.04.04	30.03.05	23.92	16.89	n/a	14.86
F.Y. 2005-06*	01.04.05	30.03.06	81.24	68.47	66.74	66.63
F.Y. 2006-07*	01.04.06	30.03.07	5.68	9.37	13.08	11.57
F.Y. 2007-08*	01.04.07	30.03.08	19.36	24.30	23.11	24.98
First Quarter*	01.04.08	30.06.08	-12.32	-14.97	-14.83	-14.55
Second Quarter*	01.07.08	30.9.08	1.37	-4.07	1.13	-0.88
Third Quarter*	01.10.08	30.11.08	-31.48	-28.62	-30.12	-32.12
Since Inception**	02.01.04	30.11.08	11.10	9.86	9.76	7.41

* Annual Returns ** Compounded Annualized Returns

Analysis of Table 8 shows that all the selected funds have outperformed its benchmark returns for the financial year 2004-05 and financial year 2005-06, with an exception of the Bajaj Allianz equity index fund for which returns for the financial year 2004-05 are not available. HDFC SL Growth Fund Pension has registered the highest growth amongst the selected pension plans during this period. It has outperformed returns of the peer groups as well as benchmark return during this period. However, it has underperformed as compared to ICICI Pru Maximiser Fund, Bajaj Allianz equity index fund and its benchmark for the F.Y. 2006-07 and F.Y. 2007-08. HDFC SL Growth Fund Pension has performed well in the first and second quarters of the F.Y. 2008-09. Overall, HDFC SL Growth Fund Pension has shown the best performance as for since inception, returns are concerned. Its returns since inception are highest among the peer groups and it has also outperformed its benchmark returns. Fig. 1 depicting the mean plots of selected pension funds-growth also clearly verifies this finding. On the basis of analysis it can be stated that HDFC SL Growth Fund Pension, ICICI Pru Maximiser Fund , Bajaj Allianz equity index fund may be assigned first, second and third ranks on the basis of their average performance. All the selected funds that have outperformed have the benchmark i.e. BSE 100 as far as average returns are concerned.

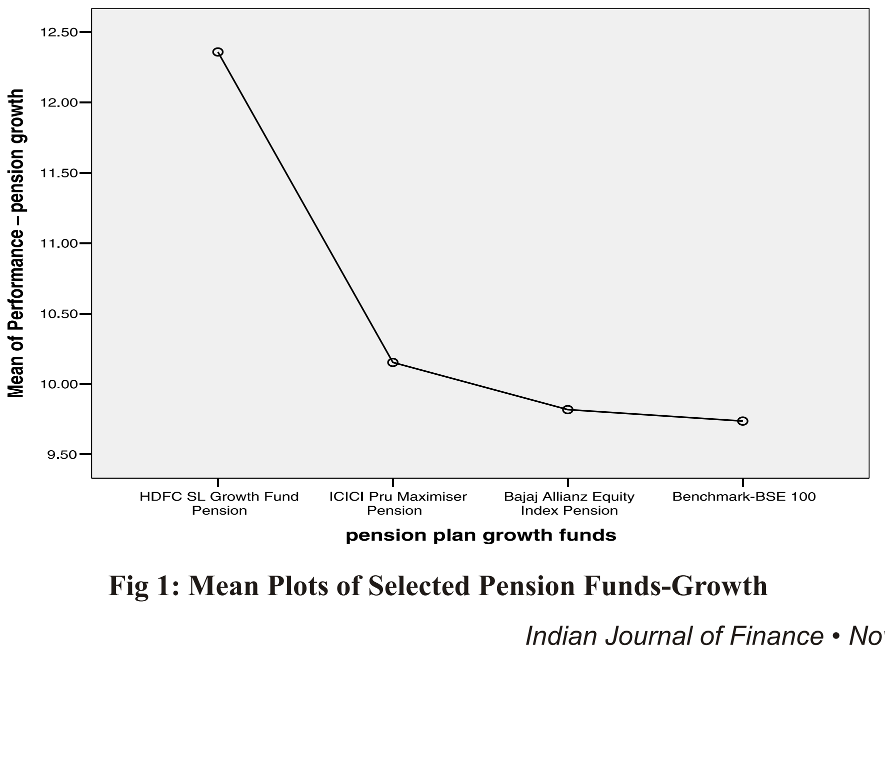

Fig 1: Mean Plots of Selected Pension Funds-Growth

3. TESTING SIGNIFICANCE OF DIFFERENCE IN PERFORMANCE OF SELECTED PENSION FUNDS

1. H_0: There is no significant difference in the average performance of the selected pension funds-growth of the three insurance companies.

To compare the significance of difference between performances of the selected pension funds-growth, one way ANOVA has been applied. Table 9 shows the results of one way ANOVA:

Table 9: One Way ANOVA Results For Pension Funds-Growth

pension plan growth funds

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	29.513	2	14.757	.015	.985
Within Groups	19321.432	20	966.072		
Total	19350.945	22			

The ANOVA table shows: F (2, 20) =0.985; p>0.05. Hence, it can be inferred that the average performance of pension funds of the selected insurance companies does not differ significantly. Though the comparison between the performance of the selected pension funds shows no significant difference between three pension fund-growths of the selected insurance companies, Tukey test was applied for inter group comparisons to test whether performance of the pension funds-growth statistically differ from each other. Table 11 shows the results of the Tukey HSD results:

Table 10: Tukey HSD Results of Multiple Comparisons For Pension Fund-Growth

Multiple Comparisons

Dependent Variable: pension plan growth funds

Tukey HSD

(I) pension plan growth funds	(J) pension plan growth funds	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
HDFC SL Growth Fund Pension	ICICI Pru Maximiser Pension	2.20500	15.54085	.989	-37.1131	41.5231
	Bajaj Allianz Equity Index Pension	2.54018	16.08630	.986	-38.1579	43.2382
ICICI Pru Maximiser Pension	HDFC SL Growth Fund Pension	-2.20500	15.54085	.989	-41.5231	37.1131
	Bajaj Allianz Equity Index Pension	.33518	16.08630	1.000	-40.3629	41.0332
Bajaj Allianz Equity Index Pension	HDFC SL Growth Fund Pension	-2.54018	16.08630	.986	-43.2382	38.1579
	ICICI Pru Maximiser Pension	-.33518	16.08630	1.000	-41.0332	40.3629

pension plan growth funds

Tukey HSD[a,b]

pension plan growth funds	N	Subset for alpha = .05 1

Bajaj Allianz Equity Index Pension	7	9.8186
ICICI Pru Maximiser Pension	8	10.1538
HDFC SL Growth Fund Pension	8	12.3588
Sig.		.986

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 7.636.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

The test result shows that the p value for each mean difference is more than 0.05. Hence, it can be stated that there is no significant difference between performances of pension funds of HDFC SL, ICICI Pru, and Bajaj Allianz.

2. $H_{0:}$ There is no significant difference in the average performance of the selected pension funds-growth in comparison to its benchmark-BSE 100.

To compare the performance of the selected pension fund growth in comparison to its Benchmark Index-BSE 100, Dunnett's t-test has been applied. Table 11 depicts the statistical results as follows:

Table 11: Dunnett t-test Results For Testing Significance of Difference of Pension Funds-Growth In Comparison To Benchmark-BSE 100

Multiple Comparisons

Dependent Variable: pension fund-growth

Dunnett t (2-sided)[a]

(I) pension growth funds	(J) pension growth funds	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
HDFC SL Growth Fund Pension	Benchmark-BSE 100	2.62125	15.29954	.996	-35.4855	40.7280
ICICI Pru Maximiser Pension	Benchmark-BSE 100	.41625	15.29954	1.000	-37.6905	38.5230
Bajaj Allianz Equity Index Pension	Benchmark-BSE 100	.08107	15.83653	1.000	-39.3631	39.5253

a. Dunnett t-tests treat one group as a control and compare all other groups against it.

The analysis shows that p values for mean differences of each pension fund-growth from its benchmark-BSE 100 are more than 0.05. Hence, the null hypothesis of no significant difference between performance of selected pension funds-growth and benchmark- BSE 100 is found valid and acceptable.

CONCLUSION

From the above findings and analysis, it can be concluded that the pension plan of ICICI Pru is the most reasonable as far as diverse charges in the selected unit linked pension plans are concerned. The performance of HDFC SL Unit Linked Pension Plan is better in comparison to ICICI Pru's Life Time Pension, and Bajaj Allianz's Unit Gain Easy Pension Regular Premium. However, the statistical results based on ANOVA, Tukey HSD, and Dunnett t test show that there is no significant difference between performances of pension funds-growth of all selected insurance companies. Besides this, the performance of the selected pension funds does not differ significantly in comparison to its benchmark index.

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