

Investor's Perception and Performance of Tax Saving Schemes in Indian Mutual Fund

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The Mutual fund industry plays a vital role in the financial intermediation in the Indian economy so Mutual fund collectively has an ability to draw investment funds. The global financial and economic crisis that unfolded in 2007 and it made an impact both on the amount of savings and the distribution of resources among mutual fund classes with varying degrees of risk. In this paper, an attempt has been made to understand the investor's perception about tax savings schemes in mutual fund. The investor's perception is collected through "questionnaire method" and being analyzed using 'Percentage analysis, CHI Square test and Factor analysis'. The performance is analyzed using NAV of the schemes between the years 2011-2014 and it is being collected from AMFI and it is analyzed using Sharpe index, Treynors index and Jensens index by comparing the daily returns and it has been compared with the BSE SENSEX.

Introduction:

The Mutual fund industry in India by the entry of Unit Trust of India (UTI) in 1963 by the government of India. UTI was a dominant player until the year 2000 in the Mutual fund industry with the total asset of over Rs 76, 547 crores as of March 31, 2000. The UTI is being governed by the special legislation called Unit Trust of India Act, 1963. In the next stage the Public sectors banks and insurance companies in the year 1987 were allowed to be permitted to set up mutual funds in India. Next, two insurance companies LIC and GIC were also been established. SEBI (Securities Exchange Board of India) formulated the Mutual fund Regulations in the year 1993 which was recognized as comprehensive regulatory in the Mutual fund industry. And finally, many mutual funds have been set up by the private and the joint sectors.

Keywords: tax saving scheme, perception, performance, risk.

Need for the Study:

This study of investors' perception that is being conducted in mutual funds at Erode helps to understand the people and significant impact on investments. And also, the study on the performance of the selected tax saving mutual funds helps to analyze the performance level of those schemes using the returns and risk. This performance analysis helps in suggesting the investors about the best performing schemes for the investors to invest since people tend to invest in schemes which gives 'more returns' and 'less risk'.

Objective:

- ✓ To understand the investors perception towards their investment in mutual fund.
- ✓ To know the various factors that may affect selection of mutual fund schemes / fund directly or indirectly.

Research Methodology:

Data Source:

The data for analyzing the perception of the investors were collected through Questionnaire in the Erode from the ELSS investors and the performance was being evaluated for the years between years 2011-2014 from AMFI (Association of Mutual Fund in India). And the NAV of top 10 performing funds were selected and daily returns were being evaluated. The risk free return is the average yield (5.5%) from SBI's 40-90 days term deposit.

Analysis and Interpretation:

INVESTORS PERCEPTION ON TAX SAVING SCHEMES

Percentage Analysis:

Investor's watch about fund value

		Frequency	Percent	Cumulative Percent
Valid	Daily	13	17.3	17.3
	Weekly	33	44.0	61.3
	Monthly	23	30.7	92.0
	Very Rarely	6	8.0	100.0
	Total	75	100.0	

From the table and graph we could that infer that, among 75 investors most of the investors about 33 investors i.e.44% watch the fund value weekly in the tax savings schemes in Mutual fund.

Investor's grievances:

		Frequency	Percent	Cumulative Percent
Valid	Delay in refund	18	24.0	24.0
	Delay in switch over	19	25.3	49.3
	Non receipt of the unit certificates	7	9.3	58.7
	Lower dividends	25	33.3	92.0
	Delay & non payment of dividends	6	8.0	100.0
	Total	75	100.0	

From the above table and chart we can infer that, 25 investors i.e. 33.3% of 75 investors have lower dividends as their investor’s grievances in ELSS- Mutual Fund.

Services offered by AMC:

		Frequency	Percent	Cumulative Percent
Valid	Value added services on product information	23	30.7	30.7
	Investment strategies	26	34.7	65.3
	Procedure on filling/ submitting application form	5	6.7	72.0
	Advice on financial planning	17	22.7	94.7
	Basic service on the schedule details	4	5.3	100.0
	Total	75	100.0	

From the above table and chart we can infer that, 26 investor’s i.e.34.7% among 75 investors are given investment strategies as services from AMC (Asset Management Company) about the Tax savings schemes in the Mutual fund.

Overall benefits of tax saving schemes:

		Frequency	Percent	Cumulative Percent
Valid	Highly Satisfied	11	14.7	14.7
	Satisfied	56	74.7	89.3
	Neither satisfied nor dissatisfied	7	9.3	98.7
	Dissatisfied	1	1.3	100.0
	Total	75	100.0	

From the above table and chart we can infer that about 56 investor’s i.e. 74.7% of 75 investors are satisfied about the overall benefits in the tax saving schemes in Mutual Fund.

Factor Analysis

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.753
Bartlett's Test of Sphericity	Approx. Chi-Square	376.793
	Df	66
	Sig.	.000

The generated score of KMO is 0.753, reasonably supporting the appropriateness of using factor analysis. As per Kaiser Level, 0.753 is middling, almost meritorious. Significance value of Bartlett’s test of sphericity <0.05 indicates that these data are approximately multivariate normal and acceptable for factor analysis.

Total Variance Explained									
Com pone nt	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulati ve %	Total	% of Variance	Cumulati ve %	Total	% of Variance	Cumulati ve %
1	4.399	36.657	36.657	4.399	36.657	36.657	3.125	26.044	26.044
2	1.979	16.490	53.147	1.979	16.490	53.147	2.819	23.493	49.537
3	1.580	13.165	66.311	1.580	13.165	66.311	2.013	16.774	66.311
4	.729	6.077	72.388						
5	.657	5.474	77.862						
6	.553	4.607	82.469						
7	.514	4.285	86.755						
8	.479	3.989	90.744						
9	.431	3.592	94.335						
10	.261	2.179	96.514						
11	.242	2.020	98.535						
12	.176	1.465	100.000						
Extraction Method: Principal Component Analysis.									

It can be concluded that these 8 factors are extracted from the 12 variables explaining about 66.311 % of variance.

Rotated Component Matrix			
	Component		
	1	2	3
Investor consider government policies as factor	.845		.100
Investor consider political factors as factor	.809	.199	
Investor consider inflation as factor	.659	.327	-.239
Investor consider national & international events as factor	.650	.271	.402
Investor consider global economy & markets as factor	.551		.500
Investor consider financial position of AMC as factor	.107	.819	
Investor consider Nature of business as factor		.793	.256
Investor consider management strategies as factor	.388	.755	
Investor consider securities market & economy as factor	.349	.704	-.162
Investor consider Nature and natural disaster as factor			.829
Investor consider terrorism as factor	.552		.665
Investors consider management affairs as factor		.467	.553
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.			
a. Rotation converged in 7 iterations.			

Component Transformation Matrix			
Component	1	2	3
1	.733	.615	.290
2	.274	-.657	.702
3	-.622	.436	.650

Extraction Method: Principal Component Analysis.
 Rotation Method: Varimax with Kaiser Normalization.

From the above table we can infer that there are 3 factors that the investors consider while deciding investment based upon the performance of the tax saving scheme in the mutual fund they are,

1. Economic Factor:
 - Investor’s consider government policies as factor
 - Investor’s consider political factors as factor
 - Investor’s consider inflation as a factor.
2. Regulatory and Management:
 - Investor’s consider financial position of AMC as a factor
 - Investor’s consider nature of business as a factor
 - Investor’s consider management strategies as a factor.
3. External Factor:
 - Investor’s consider nature and natural disaster as a factor
 - Investor’s consider terrorism as a factor
 - Investor’s consider management affairs as a factor.

Source: primary data

Performance of Selected Tax Saving Schemes

Annualized Daily Average Returns of Tax saving scheme

S.No	Close Ended Tax saving schemes in Mutual Fund	2011-2012	2012-2013	2013-2014
1	ICICI Pru RIGHT Fund (G)	0.041	0.067	0.080
2	SBI Tax Advantage Sr-2 (G)	NA	0.069	0.070
3	IDFC Tax Saver Fund (G)	0.002	0.043	0.074
4	SBI Tax Advantage Sr-1 (G)	-0.015	0.044	0.060
5	Tata Tax Advantage Fund-1(G)	0.017	0.028	0.051
6	Religare Invesco AGILE Tax (G)	-0.009	0.031	0.076
7	UTI Master Equity Plan (US)	0.007	0.028	0.042
8	UTI Long Term Advantage S2 (G)	0.000	0.032	0.042
9	Reliance ELSF - Series 1 (G)	0.016	0.049	0.039
10	UTI Long Term Advantage (G)	-0.010	0.026	0.032
	Sensex	0.008	0.032	0.051

Annualized yearly returns of Top 10 ELSS and of the benchmark, Sensex are presented in above table. From the table, it is evident that all the schemes performed well during the financial year 2013-14 compared to other 2 years. It has been seen through the table that in the year 2011-2012 ICICI pru right fund has performed well in all the three years having 0.041 return in the year 2011-2012 and 0.067 return in the year 2012-2013 and in the year 2013-2014 it has been 0.80. And also it has performed well when compared to sensex also.

Standard Deviation of Tax Saving Schemes

S.No	Close Ended Tax saving schemes in Mutual Fund	2011-2012	2012-2013	2013-2014
1	ICICI Pru RIGHT Fund (G)	0.888	0.604	0.905
2	SBI Tax Advantage Sr-2 (G)	NA	0.836	0.895
3	IDFC Tax Saver Fund (G)	1.073	0.827	0.975
4	SBI Tax Advantage Sr-1 (G)	1.173	0.807	0.839
5	Tata Tax Advantage Fund-1(G)	0.934	0.752	0.959
6	Religare Invesco AGILE Tax (G)	1.040	0.795	0.974
7	UTI Master Equity Plan (US)	1.091	0.826	1.063
8	UTI Long Term Advantage S2 (G)	1.068	0.789	1.038
9	Reliance ELSF - Series 1 (G)	1.082	0.751	0.919
10	UTI Long Term Advantage (G)	1.031	0.781	1.005
	Sensex	1.357	0.851	1.109

The scheme with higher standard deviation implies higher risk. Above Table shows the standard deviations of all selected tax-saving mutual funds. It shows that all the schemes experienced the highest volatility during 2011-12. The scheme with lowest standard deviation in 2011-12 is ICICI Pru with 0.888. The investors must be aware of their investment scheme and should choose schemes not only by considering the return but also by taking into account the associated volatility (risk) of the scheme

Sharpe Ratio Of Tax Saving Schemes in Mutual Fund

Risk Free Rate of Return= 5.5%(lowest of SBI Risk Return)

S.No	Close Ended Tax saving schemes in Mutual Fund	2011-2012	2012-2013	2013-2014
1	ICICI Pru RIGHT Fund (G)	-0.015	0.019	0.028
2	SBI Tax Advantage Sr-2 (G)	NA	0.017	0.016
3	IDFC Tax Saver Fund (G)	-0.050	-0.014	0.019
4	SBI Tax Advantage Sr-1 (G)	-0.059	-0.014	0.006
5	Tata Tax Advantage Fund-1(G)	-0.041	-0.036	-0.004
6	Religare Invesco AGILE Tax (G)	-0.061	-0.030	0.021
7	UTI Master Equity Plan (US)	-0.044	-0.032	-0.012
8	UTI Long Term Advantage S2 (G)	-0.051	-0.029	-0.013
9	Reliance ELSF - Series 1 (G)	-0.036	-0.008	-0.017
10	UTI Long Term Advantage (G)	-0.064	-0.037	-0.023
	Sensex	-0.034	-0.027	-0.004

The risk free rate has been taken from the risk free rate of SBI on whole since it cannot be calculated on own. Sharpe ratio measures the total risk of the funds on the basis of return per unit of total risk. While a high and positive Sharpe ratio shows a superior risk-adjusted performance of a fund, a low and negative Sharpe ratio is an indication of unfavorable performance. Above Table shows the Sharpe ratio of selected ELSS of mutual funds. It is generally assumed that people prefer 'more return' and 'less risk'. Risk in the context of the Sharpe ratio is return volatility. An investor would rank portfolios by their Sharpe ratios. Portfolios with higher Sharpe ratio (lower volatilities) are preferred to portfolios with lower Sharpe ratio (higher volatilities). It is seen that there is no positive sharpe value in the year 2011-2012 and the highest positive value is given by ICICI pru in years 2012-2013.

Treynors Ratio Of Tax Saving Schemes in Mutual Fund

Risk Free Rate of Return= 5.5%(lowest of SBI Risk Return)

S.No	Close Ended Tax saving schemes in Mutual Fund	2011-2012	2012-2013	2013-2014
1	ICICI Pru RIGHT Fund (G)	0.153	-0.473	-0.414
2	SBI Tax Advantage Sr-2 (G)	NA	0.184	-0.512
3	IDFC Tax Saver Fund (G)	0.466	0.767	-0.299
4	SBI Tax Advantage Sr-1 (G)	-7.875	-0.221	0.052
5	Tata Tax Advantage Fund-1(G)	0.360	1.368	0.042
6	Religare Invesco AGILE Tax (G)	0.432	-0.781	-14.556
7	UTI Master Equity Plan (US)	0.398	-2.208	0.129
8	UTI Long Term Advantage S2 (G)	0.483	-0.903	0.149
9	Reliance ELSF - Series 1 (G)	0.436	0.235	0.363
10	UTI Long Term Advantage (G)	0.594	-1.033	0.306
	Sensex	-0.047	-0.023	-0.004

Treynor is a measurement of the returns earned in excess of that which could have been earned on an investment that has no diversifiable risk per each unit of market risk assumed. Above Table shows the Treynor measures of equity-linked tax saving funds. The higher the Treynor ratio, the better the performance under analysis. The UTI long term advantage has given a highest positive value of 0.594 in the year 2011-12 and Tata Tax advantage 1.368 in the year 2012-13 and Religare Invesco it has given highest negative value of -14.556.

Jensens Ratio Of Tax Saving Schemes in Mutual Fund

Risk Free Rate of Return= 5.5%(lowest of SBI Risk Return)

S.No	Close Ended Tax saving schemes in Mutual Fund	2011-2012	2012-2013	2013-2014
1	ICICI Pru RIGHT Fund (G)	-0.009	0.012	0.025
2	SBI Tax Advantage Sr-2 (G)	NA	0.013	0.015
3	IDFC Tax Saver Fund (G)	-0.048	-0.012	0.019
4	SBI Tax Advantage Sr-1 (G)	-0.070	-0.012	0.005
5	Tata Tax Advantage Fund-1(G)	-0.033	-0.027	-0.003
6	Religare Invesco AGILE Tax (G)	-0.057	-0.025	0.021
7	UTI Master Equity Plan (US)	-0.042	-0.027	-0.012
8	UTI Long Term Advantage S2 (G)	-0.049	-0.024	-0.013
9	Reliance ELSF - Series 1 (G)	-0.035	-0.006	-0.015
10	UTI Long Term Advantage (G)	-0.060	-0.029	-0.023
	Sensex	-0.093	-0.046	-0.008

Jensen ratio is another type of risk-adjusted performance measure that was developed by Michael Jensen and is referred to as the Jensen measure or ratio. This ratio attempts to measure the differential between the actual return earned on a portfolio and the return expected from the portfolio given its level of risk. It has been seen from the above table that in the year 2011-12 all the values are negative and the highest positive value in the year 2012-13 is given by SBI tax advantage and in the year 2013-14 it is ICICI Pru which has given highest positive value.

Conclusion:

This paper evaluates the perception of investor’s about their investment in tax saving schemes in mutual fund. Percentage analysis is being conducted to show major investor’s preference and factor analysis is being used as a tool to know the variance using KMO Bartlett’s test and the factors have been separated. The performance top 10 performing ELSS schemes is being analyzed using the Sharpe index, Treynor index and Jensen’s index for the years 2011-2014. Over all through this study we could identify the investor’s perception towards mutual fund industry as a whole.

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