Comparative Analysis of Performance of Tax Saving Mutual Funds: A Case Study of Selected Asset Management Companies

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ABSTRACT:
A mutual fund is a financial intermediary that pools the savings of small investors for collective investment in a diversified portfolio of securities. Indian mutual fund industry is playing a significant role in the development of capital market and in the growth of Indian economy. Mutual fund investment is quite popular among small investors for seeking tax incentives. Tax-saving mutual fund schemes or the equity-linked savings schemes (ELSS) offers tax deduction benefits to investors. Thus, this study is carried out to fulfill the objectives of the investors. The study aims to examine the performance of tax saving schemes of five Asset Management Companies (AMCs) for a period of ten years from 2004-05 to 2013-14. The Net Asset Value (NAVs) of ELSS funds is compared with benchmark index. Statistical tools like average return, standard deviation, beta, regression analysis and the risk adjusted performance measures suggested by Treynor, Sharpe and Jensen measures are employed. The study reveals that private sector tax saving mutual fund schemes have outperformed as compared to its market return and the performances of public sector tax saving mutual fund schemes were not satisfactory. In the private sector, HDFC Tax Saver has the higher return which is even more than the market return and in terms of risk; it is more volatile compared to the market return. In term of relative performance among tax saving mutual fund by applying Sharpe Index, Treynor Index and Jensen Index models, it is observed that the private sector has performed well in the mutual fund industry whereas public sector could not perform well in the market. Further, in examining the relationship between fund return and market return, it is observed that there is no linear relationship between fund return and market return.

KEYWORDS: Equity Linked Savings Scheme (ELSS), Net Asset Value (NAV), Return, Risk, and Performance Measures.

1. INTRODUCTION
India has witnessed a tremendous growth since 1991. With liberalization in India economy, there has been a sea change in the financial market. Consistent with this evolution, Indian
mutual funds industry has also witnessed a rapid growth. Indian mutual fund industry is playing a significant role in the development of capital market and in the growth of Indian economy. A mutual fund is a financial intermediary that pools the savings of small investors for collective investment in a diversified portfolio of securities with the objectives of attractive yields and appreciation in their value. A considerable attraction towards mutual funds was essentially due to assured returns along with security to investors’ investment (Sanyasi, 2013). Large market potential, rising income, high saving rate, growing risk appetite, comprehensive regulatory framework by Securities and Exchange Board of India (SEBI), favourable tax policies, introduction of new products, increasing awareness etc have made mutual funds a preferred investment option (Rekha, 2012). Small investors face many hardships in stock market investment decision making. They cannot afford to have vast knowledge of market behaviour and lack knowledge about maximizing gains by proper selection and timing of investment. As such, mutual funds are the secured way for small investors to enter the capital market (Viramgami, 2009). Majority of small investors in India opt for tax-saving mutual fund schemes or the equity-linked savings schemes (ELSS). These schemes are ideal for investors seeking tax incentives. ELSS holds the advantage of being the only equity-based tax saving instrument that offers tax deduction on investments up to Rs 1,00,000, under Section 80C of the Income-Tax Act. That is one of the reasons why the investors in India add the tax-saving mutual fund schemes to their portfolio.

2. REVIEW OF LITERATURE:

Several researchers have undertaken studies from time to time on mutual funds and their performance evaluation in India. Most of the studies are related to benchmark comparison which is a significant fund performance measure. Benchmark comparison facilitates in signifying the efficiency level of the fund managers in generating better returns of managed funds compared to the market or index funds. An attempt has been made by the present researchers to provide a few reviews of those studies.

Gupta (2001) assessed the outcome of 73 selected schemes with different investment objectives, both from the public and private sector using Market Index and Fundex. NAV of both close-ended and open-ended schemes from April 1994 to March 1999 were also tested. The result depicted that the selected schemes has not been properly diversified and risk and return of schemes could not fulfill their scheme’s objectives.

Ravinderan and Narayan (2003) in his study made an attempt to evaluate the performance of Indian mutual funds in a bear market. The study was conducted for the period September 1998 - April 2002 on a sample of 269 open ended schemes by using performance index, risk-return analysis, Treynor’s ratio, Sharp’s ratio, Jensen’s measure and FAMA’s measure. The study observed that most of the sample mutual fund schemes couldn’t generated excess returns over expected returns and further concluded that the funds were not adequately diversified and were not managed optimally.

Elango (2004) undertook empirical study for private sector and public sector schemes. His study indicated that private sector schemes have outperformed public sector schemes in terms
of NAV, innovative products and in deployment of funds. However, public sector funds showed low volatility as against greater inconsistency for private sector.

Sondhi and Jain (2004) examined 26 equity schemes drawn from 26 Asset Management Companies (AMCs) belonging to public and private sector. They emphasized that equity mutual funds performance were inferior in comparison to risk and return. Sondhi and Jain (2005), in their another paper, made an attempt to study 19 private and 17 public sector mutual fund equity schemes during the period 1993-2002. There existed inconsistency in the performance of the funds. The returns were higher than the BSE 100 index. However, it was lower than the returns on 364 days treasury bills. Private equity schemes had outperformed due to its reputation, professional management, well-researched stock selection and timing skills. The study further underlined that more than three-fourth of public sector schemes couldn’t attain better returns in spite of higher investor confidence and high safety.

Bodla and Garg (2005) reviewed 24 growth oriented schemes of mutual funds. They assessed the funds by applying risk adjusted performance measures as recommended by Sharpe, Treynor and Jensen. The conclusion drawn from the assessment showed that there were insignificant difference between market return and fund return.

Muthappan and Damodharan (2006) analysed 40 schemes for a period of 5 years from April 1995 to March 2000. The study observed that majority of the schemes have achieved superior returns compared to the market but have not performed better than 91 days treasury bill. They further observed that 23 schemes have outperformed both in terms of total risk and systematic risk. 19 schemes performance were superior while growth schemes earned average monthly return. The average unique risk of 7.45% with an average diversification of 35.01% portrayed that the sample schemes were not adequately diversified.

Guha (2008) determined the return-based style analysis of equity mutual funds in India using quadratic optimization of an asset class factor model proposed by William Sharpe. The study identified the Style Benchmarks of each of its sample of equity funds as optimum exposure to 11 passive asset class indexes. A comparative study of the performance of the funds with that of their style benchmarks revealed that the fund’s performance were inferior to their style benchmarks. Bhatt and Patel (2008) observed the performance of 10 mutual fund scheme using Sharpe index method. The study portrayed that fund with high index value has performed better than fund with low index value. Phaniswara and Rao (2008) analyzed performance of 60 mutual fund schemes of 29 mutual fund companies operating during 2008. The fund were evaluated using risk adjusted performance measures and observed that there were mismatch of the risk return relationship in some schemes and most of the selected schemes failed to outperform the market.

Mehta (2010) evaluated the performance of 10 funds of the both UTI and SBI mutual fund schemes. The study was accomplished on the basis of portfolio evaluation techniques using Sharpe, Treynor and Jensen Index and FAMA during 2006-07 and 2007-08. The study depicted that SBI mutual fund schemes has outperformed UTI schemes in both the years and UTI and SBI mutual funds have superior returns in 2007-08 as compared to 2006-07.
Dharmraja and Santhosh (2010) conducted a study for a period of two years - Bull Run period from January 2007 to December 2007 and Bear Run period from January 2008 to February 2009 to examine 5 balance mutual fund and 5 Income mutual funds. The findings revealed that there was generation of maximum return accompanied by high rate of risk during Bull Run period. However, the performance of the balance mutual fund was inferior to the market during the same period. During the Bear Run period, income mutual fund has lesser risk compared to stock market. On comparing balance mutual funds and income fund, it was concluded that income funds have performed better than the balance mutual fund during Bear Run period and mutual fund investment were relatively risk free than stock market as the investment being managed by the professionals. Devi and Kumar (2010) focused on the performance of Indian and foreign equity mutual funds and has observed that among Indian equity funds, the returns are highest for equity tax savings funds (55.87%) followed by diversified funds (54.73%) whereas it is just the reverse in case of foreign mutual fund as equity diversified funds are the toppers in return (57.57%) followed by equity tax savings funds (82%). They have further identified that there was not much difference in the returns between Indian and foreign equity index funds and equity tax savings funds.

Bawa and Brar (2011) identified a few selected growth mutual funds schemes of both public sector and private sector schemes during the period 1st April 2000 to 31st March 2010 to evaluate their performance. The study concluded that the returns of private sector growth schemes have been better than public sector growth schemes.

Sukhwinder, Batra and Bimal (2012) examined 10 equity schemes for the period of two years and observed that out of all sample schemes only 4 schemes were able to give more reward to volatility than benchmark. Mannar (2012) conducted a study to evaluate the performance of the four equity funds during the period from 2002-03 to 2011-12. Two funds houses namely HDFC and ICICI Prudential were selected for the study. The funds selected were HDFC Top 200 (G). HDFC Capital Builder (G). ICICI Prudential Top 200 (G) and ICICI Prudential Top 200 (G). The study identified that the average performance of the HDFC top 200 scheme has been inferior by a large factor when compared to the other schemes under study. The Performance of all the funds was to an extent better than the market with only a few rare exceptions.

Hada (2013) has focused to evaluate the performance of mutual fund schemes with their benchmark in respect of their risk & return. The study concluded that the major share of mutual fund has been captured by income schemes, growth schemes and liquid schemes. HDFC, UTI, Franklin Templeton, SBI and Reliance have outperformed in case of growth schemes. In Balanced schemes, HDFC, Franklin Templeton, ICICI Prudential, UTI and SBI have performed well. On overall basis, the study revealed that HDFC is the best option.

Rajput and Singh (2014) made an attempt to evaluate the investment performance of major funds in terms of risk and return and to study the impact of stock market fluctuations during April 2012 to March 2013. The sample consists of 120 different open-ended mutual fund schemes from public sector financial institutions, banks, private sector organizations and unit trust of India. 100 share based BSE national index has been used as proxy to find out the performance of the schemes in market. The study revealed that tax saving funds performed
well in market with high variations in risk and return. Systematic risk and variability were higher in tax saving and equity schemes whereas risk was moderate under balanced and low in income schemes. Tax saving fund had outperformed when compared with market benchmark followed by balanced fund and equity fund.

3. STATEMENT OF THE PROBLEM:

Mutual fund investment is quite popular among small investors, who mobilize their savings for investment in the capital market. In fact, they want to yield the maximum returns on their investment by taking lesser risk and at the same time save tax on their income. Hence this study is undertaken to do a comparative evaluation of the performance of tax saving schemes of five asset management companies to fulfill the objectives of the investors.

4. OBJECTIVES OF THE STUDY:

The main objective of the study is
1. To compare the performance of private sector and public sector tax saving mutual fund schemes with benchmark index (Sensex)
2. To examine the relative performance among tax saving mutual fund schemes by applying risk adjusted fund performance measure using Sharpe Index, Treynor Index and Jensen Index models
3. To examine the relationship between tax saving mutual fund return and market return

5. METHODOLOGY:

5.1. Nature of Research
The present research is exploratory and empirical in nature with descriptive statistics based on the data of daily NAVs of tax saving mutual fund schemes of five selected AMCs.

5.2. Research Design
The research-design for the research work is conclusive. Conclusive research tests the hypothesis of the research problem and draws definite conclusion for implementation, thus, the present research is conclusive in nature.

5.3. Population and Sample
There are more than 45 tax saving mutual fund schemes available in India. Out of which, 5 tax saving mutual fund schemes with ‘Growth option (G)’ are selected for the present study which include LIC Nomura MF Tax Plan (G), ICICI Pru Tax Plan(G), HDFC Tax Saver (G), SBI Magnum Tax Gain (G) and Franklin India Tax Shield (G). Selection of AMCs reflects two from public sector and three from private sector, thus representation a combination of both public and private sector assets management companies in the study.

5.4. Hypotheses of the study
Keeping the above objectives in view a hypothesis has been developed.
Null Hypothesis: There is a linear relationship between fund return and market return.
Alternative Hypothesis: There is no linear relationship between fund return and market return.

5.5. Sources of data
The present study is purely based on secondary data. The data is collected from the fact sheets, reports and websites of the selected AMCs and Bombay Stock Exchange (BSE). Further, SEBI manuals, magazines, books and journals etc. were also considered for the study.

5.6. Periodicity of the study
This study covers a period of ten years from financial year 2004-05 to 2013-14 for the purpose of evaluating the performance of selected tax saving mutual funds.

5.7. Tools for analysis
The parameters used for evaluation of the performance are Return, Variance, Standard Deviation and Beta. In this study, fund management and evaluation techniques of Sharpe Index, Treynor Index and Jensen Index measure are also used for the analysis.

**Sharpe Index**
Sharpe Index is based on the scheme’s total risk and is a summary measure of scheme's performance adjusted for risk. Hence the Sharpe index measure reflects the excess return earned on a fund per unit of total risk (standard deviation). Sharpe Index = \[\frac{(\text{Return from the Fund} - \text{Risk-free Rate of Return})}{\text{Total Risk of Fund}}\] i.e. \[\frac{(R_p-R_f)}{\sigma}\]

**Treynor Index**
As per Treynor index, systematic risk or beta is the appropriate measure of risk, as suggested by Capital Asset Pricing Model. The Treynor measure of fund relates the excess return on a fund to the fund beta. Hence, the Treynor measure reflects the excess return earned per unit of systematic risk (beta). Treynor Index =\[\frac{(\text{Return from the Fund} - \text{Risk-free Rate of Return})}{\beta}\] i.e. \[\frac{(R_p-R_f)}{\beta_p}\]

**Jensen Index**
Jensen Index constructs a measure of absolute performance on a risk-adjusted basis. It measures absolute performance because a definite standard is set and against that the performance is measured. The standard is based on the managers' predictive ability. Jensen Index = Return from the Fund – [Risk-free Rate of Return + Beta (Return of the market - Risk-free Rate of Return)] i.e. \[R_p-[R_f + \beta(R_m-R_f)]\]

For calculation of adjusted risk performance measures, the risk free return of 8.25 % per annum is adopted. It is equivalent to normal fixed deposit rate prevailing in the market. Out of two national stock exchanges, SENSEX data is used as benchmark for the study as it is considered proximity to the market.

Regression analysis is further used in the study to statistically predict the value of a dependent variable i.e. NAVs by independent or explanatory variable i.e. BSE Sensex. In regression analysis, the coefficient of multiple regressions (\(R^2\)) is the proportion of variation
in NAVs that is explained by BSE Sensex. The adequacy of the regression model can be verified by testing the significance of the overall regression model and coefficients of regression. The contribution of an independent variable can be determined by applying partial F statistics.

5.8. Limitation of the study
One major limitation of the study is that the present research work has selected only five tax saving mutual fund schemes. However, there are other tax saving mutual fund schemes offered by various AMCs which have not been taken into account for the study.

6. RESULTS AND DISCUSSION:
To compare the performance of private sector and public sector tax saving mutual fund schemes with benchmark index (Sensex), risks and returns of funds are calculated.

<table>
<thead>
<tr>
<th>YEARS</th>
<th>LIC Nomura MF Tax Plan</th>
<th>ICICI Pru Tax Plan</th>
<th>HDFC Tax Saver</th>
<th>SBI MagNUM Tax Gain</th>
<th>Franklin India Tax Shield</th>
<th>BSE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fund Return %</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2004-05</td>
<td>8.11</td>
<td>59.79</td>
<td>51.60</td>
<td>54.93</td>
<td>26.94</td>
<td>14.22</td>
</tr>
<tr>
<td>2005-06</td>
<td>42.27</td>
<td>59.15</td>
<td>66.31</td>
<td>23.49</td>
<td>56.86</td>
<td>54.93</td>
</tr>
<tr>
<td>2006-07</td>
<td>-1.45</td>
<td>-5.39</td>
<td>3.95</td>
<td>-3.63</td>
<td>0.64</td>
<td>15.55</td>
</tr>
<tr>
<td>2007-08</td>
<td>18.00</td>
<td>17.68</td>
<td>20.24</td>
<td>24.70</td>
<td>27.09</td>
<td>25.92</td>
</tr>
<tr>
<td>2008-09</td>
<td>-39.57</td>
<td>-42.68</td>
<td>-38.43</td>
<td>-43.41</td>
<td>-34.24</td>
<td>-38.56</td>
</tr>
<tr>
<td>2009-10</td>
<td>48.34</td>
<td>78.82</td>
<td>76.96</td>
<td>64.56</td>
<td>63.70</td>
<td>56.68</td>
</tr>
<tr>
<td>2010-11</td>
<td>9.10</td>
<td>10.55</td>
<td>12.11</td>
<td>3.21</td>
<td>13.33</td>
<td>9.60</td>
</tr>
<tr>
<td>2011-12</td>
<td>-10.89</td>
<td>-2.45</td>
<td>-3.16</td>
<td>-3.65</td>
<td>1.52</td>
<td>-10.18</td>
</tr>
<tr>
<td>2012-13</td>
<td>4.58</td>
<td>6.69</td>
<td>1.37</td>
<td>6.16</td>
<td>6.88</td>
<td>7.61</td>
</tr>
<tr>
<td>2013-14</td>
<td>16.72</td>
<td>25.62</td>
<td>21.45</td>
<td>21.97</td>
<td>19.84</td>
<td>17.43</td>
</tr>
<tr>
<td>Total Fund Return</td>
<td>95.21</td>
<td>207.78</td>
<td>212.40</td>
<td>148.34</td>
<td>182.57</td>
<td>153.20</td>
</tr>
<tr>
<td>n</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Average Fund Return (R_p)</td>
<td>9.52</td>
<td>20.78</td>
<td>21.24</td>
<td>14.83</td>
<td>18.26</td>
<td>15.32</td>
</tr>
<tr>
<td>Variance</td>
<td>630.75</td>
<td>1327.73</td>
<td>1221.22</td>
<td>954.24</td>
<td>801.14</td>
<td>4578.59</td>
</tr>
<tr>
<td>Standard Deviation (σ)</td>
<td>25.11</td>
<td>36.44</td>
<td>34.95</td>
<td>30.89</td>
<td>28.30</td>
<td>67.67</td>
</tr>
<tr>
<td>Beta (β)</td>
<td>0.88</td>
<td>1.14</td>
<td>1.15</td>
<td>0.88</td>
<td>0.97</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 1 depicts a comparison of risk and return of the five tax saving mutual fund schemes with BSE as its benchmark for a period of 10 years from 2004-05 to 2013-14. The returns of
the funds show a fluctuating trend in the last ten years. However, the average returns of the funds of private sector AMCs i.e. ICICI Pru Tax Plan (20.78%), HDFC Tax Saver (21.24%) and Franklin India Tax Shield (18.26%) show over performance as compared to its market return (BSE Sensex) of 15.32%. Among all the five funds, HDFC Tax Saver has the highest return of 21.24% which is even more than the market return of 15.32% and standard deviation of 34.95 % which is less than market standard deviation of 67.67%.

A close look at beta shows that LIC Nomura MF Tax Plan and SBI Magnum Tax Gain have the least beta of 0.88 followed by Franklin India Tax Shield having beta of 0.97 which are less volatile then the market risk. However, the highest return generating fund, HDFC Tax Saver, has the beta of 1.15. This shows that 1% change in the market index return causes exactly 1.15 % changes in the HDFC Tax Saver fund return. It indicates that HDFC Tax Saver fund return is more volatile compared to the market return. Schemes with the beta value more than one indicate its aggressive nature while all other schemes are found defensive in nature with beta values less than one. From the above risk and return analysis, it has been reflected that ‘higher the risk higher is the return’.

Table 2: Comparative Performance Measures

<table>
<thead>
<tr>
<th>Performance Measures</th>
<th>LIC Nomura MF Tax Plan</th>
<th>ICICI Pru Tax Plan</th>
<th>HDFC Tax Saver</th>
<th>SBI Magnum Tax Gain</th>
<th>Franklin India Tax Shield</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treynor Performance Measure</td>
<td>1.44</td>
<td>10.99</td>
<td>11.32</td>
<td>7.46</td>
<td>10.27</td>
</tr>
<tr>
<td>Sharpe Performance Measure</td>
<td>0.05</td>
<td>0.34</td>
<td>0.37</td>
<td>0.21</td>
<td>0.35</td>
</tr>
<tr>
<td>Jensen Performance Measure</td>
<td>-4.97</td>
<td>4.47</td>
<td>4.87</td>
<td>0.35</td>
<td>3.12</td>
</tr>
</tbody>
</table>

Table 2 reflects the performance measure of all the five funds using Sharpe Performance Index, Treynor Performance Index and Jensen Performance Index. HDFC Tax Saver shows best performance in each of the performance index. It is followed by ICICI Pru Tax Plan in case of Treynor and Jensen Performance Index and Franklin India Tax Shield in case of Sharpe Performance Index. The least fund performer is LIC Nomura MF Tax Plan with a negative performance as per Jensen Performance Index. Even the performance of SBI Magnum Tax Gain is not satisfactory in case of all the performance measure. Thus, in term of relative performance among tax saving mutual fund by applying Sharpe Index, Treynor Index and Jensen Index models, it is observed that the private sector has performed well in the mutual fund industry whereas public sector could not perform well in the market.

Table 3: Statistical Analysis of Fund Return and Market Return

<table>
<thead>
<tr>
<th>Funds</th>
<th>LIC Nomura MF Tax Plan</th>
<th>ICICI Pru Tax Plan</th>
<th>HDFC Tax Saver</th>
<th>SBI Magnum Tax Gain</th>
<th>Franklin India Tax Shield</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple R</td>
<td>0.983</td>
<td>0.875</td>
<td>0.919</td>
<td>0.799</td>
<td>0.963</td>
</tr>
<tr>
<td>R²</td>
<td>0.965</td>
<td>0.766</td>
<td>0.844</td>
<td>0.638</td>
<td>0.927</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>0.961</td>
<td>0.736</td>
<td>0.825</td>
<td>0.593</td>
<td>0.918</td>
</tr>
<tr>
<td>Observations</td>
<td>10.000</td>
<td>10.000</td>
<td>10.000</td>
<td>10.000</td>
<td>10.000</td>
</tr>
</tbody>
</table>
A relationship of funds return and market return is proved by hypothesis testing of regression analysis which is depicted in table 3. From the statistical analysis, it is observed that at 95% confidence level all funds calculated p-value is $> 0.05$. Thus the null hypothesis of a linear relationship between fund return and market return is rejected and alternative hypothesis is accepted. This indicates that fund returns are not statistically significant compare to market return. Conversely, a larger (insignificant) p-value suggests that changes in the fund return are not associated with changes in the market return. Hence statistically it represent that there is no close relationship between fund’s performance and market return. The analysis is further authenticated by significance F value which is less compare to p-value. This indicates that fund’s returns are not statistically significant compare to market return. It can be justified from the performance of fund’s average return and market average return which represent that ICICI Pru Tax Plan, HDFC Tax Saver and Franklin India Tax Shield have over performed compare to market performance. Whereas SBI Magnum Tax Gain fund performance was slightly lower than the market performance and in case of LIC Nomura MF Tax Plan was underperformed compare to market performance. Thus, a larger (insignificant) p-value suggests that changes in the fund’s return are not associated with changes in the market return.

The relationship between fund return and market return is well explained by graphical representation from Fig 1 through Fig 5. The graph of Line fit plot shows visual feel of linear relationship between fund return and market return. The square symbol in the graph shows the "predicted" relationship, i.e. a perfectly straight line from the equation $Y_i = a + bX_i$. The diamond symbol in the graph shows the actual relationship between fund return and market return. It is considered that closer the line passes through all of the fund return in the graph, better is the fit of the regression line. The wide scattered returns of the funds in the graphs show that there is no linear relationship between fund return and market return.

**Fig 1: LIC Nomura MF Tax Plan**

<table>
<thead>
<tr>
<th>Significance F</th>
<th>0.000</th>
<th>0.001</th>
<th>0.000</th>
<th>0.006</th>
<th>0.000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coefficients</td>
<td>-3.993</td>
<td>3.317</td>
<td>3.654</td>
<td>1.319</td>
<td>3.329</td>
</tr>
<tr>
<td>$t$ Stat</td>
<td>-2.207</td>
<td>0.486</td>
<td>0.684</td>
<td>0.183</td>
<td>1.127</td>
</tr>
<tr>
<td>p-value</td>
<td>0.058</td>
<td>0.640</td>
<td>0.513</td>
<td>0.859</td>
<td>0.292</td>
</tr>
</tbody>
</table>
Fig 2: ICICI Pru Tax Plan

Fig 3: HDFC Tax Saver

Fig 4: SBI Magnum Tax Gain

Fig 5: Franklin India Tax Shield
7. CONCLUSION:

The present study has examined the performance of five tax saving mutual fund schemes of India during the period from financial year 2004-05 to 2013-14. In the study period, the private sector tax saving mutual fund schemes have outperformed as compared to its market return. However, the performances of public sector tax saving mutual fund schemes were not satisfactory. In the private sector, HDFC Tax Saver has the highest return which is even more than the market return. Moreover, in terms of risk, HDFC Tax Saver fund return is more volatile compared to the market return. In the public sector, LIC Nomura MF Tax Plan and SBI Magnum Tax Gain are less volatile then the market risk. In term of relative performance among tax saving mutual funds by applying Sharpe Index, Treynor Index and Jensen Index models, it is observed that the private sector has performed well in the mutual fund industry whereas public sector could not perform well in the market. Once again, HDFC Tax Saver shows best performance in each of the performance index. While the performance of LIC Nomura MF Tax Plan and SBI Magnum Tax Gain is not satisfactory in case of all the performance measure. Further, in examining the relationship between fund return and market return, it is observed that there is no linear relationship between fund return and market return. This indicates that fund returns are not statistically significant compare to market return.

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