A comparative performance evaluation of UTI mutual fund with SBI mutual fund

R Suganthi and J Udhayakumar

Abstract

A mutual fund is a trust that pools the savings of a number of investors who share a common financial goal. The money thus collected is then invested in capital market instruments such as shares, debentures and other securities. Indian mutual fund has gained a lot of popularity from the past few years. UTI was the first concern to deal with mutual fund in India. Hence, the study was conducted to compare the performance on the Investment of mutual funds with UTI AND SBI. To conduct the study the research methodology adopted are Average return, Beta, Standard Deviation, Sharpe Ratio, Treynor Ratio and Jensens Measures. Overall the study conducted revealed that investment in UTI (Equity, balanced and liquid fund) is better compared to SBI funds over the last five years.

Keywords: Capital market instruments, average return, beta, standard deviation, Sharpe ratio, Treynor ratio and Jensens measures

Introduction

In an economy, the financial system facilitates the transformation of savings of individuals, governments and businesses into investment and consumption. Such system consists of various intermediaries, markets, instruments and services. A number of financial institutions act as mobilize and depositors of savings, suppliers of credit and also providers of various financial services to the community. These institutions vary in their roles, objectives and offerings and can be classified on the basis of their primary activities, or the degree of their specialization in relation to savers, investors and borrowers with whom they deal.

In fact, for many people, investment means only buying of mutual funds. After all, it is common knowledge that investing in mutual funds is (or at least should be) better than simply letting your cash waste away in a savings account, but, for most people, that's where the understanding of funds ends. It doesn't help that mutual fund salespeople speak a strange language full of jargons that many investors don't understand.

Objective of the study

• To present the comparative performance analysis of UTI equity – Diversified with SBI equity- growth (Diversified fund) using Sharpe Index Ratio, Treynor Ratio and Jensens Ratio.
• To analysis the comparative performance analysis of UTI Balanced fund with SBI Balanced fund using Sharpe Index Ratio, Treynor Ratio and Jensens Ratio.
• To study the comparative performance analysis of UTI Liquid fund with SBI Liquid fund using Sharpe Index Ratio, Treynor Ratio and Jensens Ratio.
• To offer feasible suggestions in the light of findings of the present study.

Research Methodology

Sampling

Based on the value research journal and AMFI, there are 45 asset management companies (AMCs) that are existence during the study period. Out of this, in the 2 mutual fund asset management companies are purposively selected as these asset management companies are UTI Mutual Fund and SBI Mutual Fund (both are public companies).
Period of the study
The present study aims to carry out the evaluation of chosen schemes during the period from 2011-2012 to 2015-2016 (i.e., 1st April 2011 to 31st March 2016). Hence, the study covers a period of 5 financial years.

Data collection
The present study is purely based on the secondary sources of information. So required secondary information has been collected from the published records of Association of Mutual Funds of India (AMFI), Value Research website, respective asset management companies (AMCs) websites.

Tools and techniques used
Performance of each scheme is evaluated by using performance evaluation models such as Treynor’s, Sharpe’s, Jensen’s differential returns have been used and the Simple Statistical Tools are used like Average, Standard Deviation, and Beta.

I. Average return, Beta, Standard Deviation

Average return
Average return is the simple mathematical average of a series of returns generated over a period of time. An average return is calculated for any set of numbers; the numbers are added together into a single sum, and then the sum is divided by the count of the numbers in the set.

\[ \bar{R}_p = \frac{1}{n} \sum R_{pt} \]

Where,
- \( \bar{R}_p \) = Average return on portfolio
- \( R_{pt} \) = Return on portfolio
- \( n \) = No of years

Beta
Beta of an investment indicates whether the investment is more or less volatile than the market. In general, a beta less than 1 indicates that the investment is less volatile than the market, while a beta more than 1 indicates that the investment is more volatile than the market. Beta is also known as the beta coefficient.

\[ \beta_p = \frac{(R_p - \bar{R}_p)(R_m - \bar{R}_m)}{(\text{Var}(R_m)} \times 2 \]

Where,
- \( R_p \) = Return on portfolio
- \( \bar{R}_p \) = Average return on portfolio
- \( R_m \) = Return on market
- \( \beta_p \) = Market-risk, beta coefficient

Standard Deviation
The standard deviation (SD, also represented by the Greek letter sigma \( \sigma \) or the Latin letter \( s \)) is a measure that is used to quantify the amount of variation or dispersion indicates that the data value.

\[ \sigma_p = \sqrt{\frac{1}{n-1} \sum (R_{pt} - \bar{R}_p)^2} \]

Where,
- \( R_{pt} \) = Return on portfolio
- \( \bar{R}_p \) = Average return on portfolio
- \( n \) = No of years

II. Sharpe Ratio, Treynor Ratio And Jensens Measure

Sharpe Ratio
The Sharpe ratio (also known as the Sharpe index, the Sharpe measure, and the reward-to-variability ratio) is a way to examine the performance of an investment by adjusting for its risk the ratio measures the excess return (or risk premium) per unit of deviation in an investment asset or a trading strategy, typically referred to as risk (and is a deviation risk measure), named after William F. Sharpe.

\[ \text{Sharpe's index} = \frac{(R_p - R_f)}{\sigma_p} \]

Where,
- \( R_p \) = Return on portfolio
- \( R_f \) = Risk free return
- \( \sigma_p \) = standard deviation of portfolio

Treynor Ratio
The Treynor index, an investor should know the concept of characteristic line. The relationship between a given market return and the fund’s return is given by the characteristic line.

\[ \text{Treynor index} = \frac{(R_p - R_f)}{\beta_p} \]

Where,
- \( R_p \) = Return on portfolio
- \( R_f \) = Risk free return
- \( \beta_p \) = Market-risk, beta coefficient

Jensens Measures
A absolute risk adjusted return measure was developed by Michael Jensen and commonly known as Jensen’s measure. It is mentioned as a measure of absolute performance because a definite standard is set and against that the performance is measured. The standard is based on the manager’s predictive ability successful prediction of security price would enable the manager’s to earn higher returns than the ordinary investor expects to earn in a given level of risk.

\[ \alpha_p = R_p - [R_f + \beta_p (R_m - R_f)] \]

Where,
- \( R_p \) = Return on portfolio
- \( R_f \) = Risk free return
- \( \beta_p \) = Market-risk, beta coefficient
- \( R_m \) = Return on market

Limitations of the study
- The study is limited to only UTI Mutual Fund and SBI Mutual Fund.
- The study covers only the past FIVE years performance of the funds.
- Since the study is based on the Secondary Source and Information (like published records of AMFIs and Mutual Fund companies Websites).

Review of Literature
Poonam M Lohana (2013) studied on performance evaluation of selected mutual fund of india based on risk-return relationship models and measures: Treynor ratio,
Sharpe ratio, Jensen’s alpha. The study found that returns of
the funds are more than market index returns, but not high.

Dr. Yadav Ajay Pratap (2011) in his survey based study
reveals that private sector mutual funds have now not only
captured market share but also mind share share of the
investors.

Sushilkumar (2010) analyze the performance of mutual fund
schemes of SBI and UTI and found out that SBI schemes
have performed better than the UTI in the year 2007-2008.
Debasish (2009) studied the performance of selected
schemes of mutual funds based on risk and return models
and measures. The study covered the period from April
1996 to March 2005 (nine years). The study revealed that
Franklin Templeton and UTI were the best performers and
Birla Sun life, HDFC and LIC mutual funds showed poor
performance.

**Data and Analysis**

(i) **Equity fund analysis**

<table>
<thead>
<tr>
<th>Year</th>
<th>Average return</th>
<th>Beta</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>UTI</td>
<td>SBI</td>
<td>UTI</td>
</tr>
<tr>
<td>2011-2012</td>
<td>1.06</td>
<td>2.24</td>
<td>1.13</td>
</tr>
<tr>
<td>2012-2013</td>
<td>4.69</td>
<td>4.73</td>
<td>1.03</td>
</tr>
<tr>
<td>2013-2014</td>
<td>3.95</td>
<td>4.35</td>
<td>0.98</td>
</tr>
<tr>
<td>2014-2015</td>
<td>3.63</td>
<td>10.84</td>
<td>1.03</td>
</tr>
<tr>
<td>2015-2016</td>
<td>3.16</td>
<td>4.04</td>
<td>0.93</td>
</tr>
</tbody>
</table>

**Source:** Secondary Data

The above table shows that the Average return from Equity
fund of UTI mutual fund and SBI mutual fund for the five
years are very fluctuating similar to that of the market
movements. SBI Equity Growth Fund has given a higher
return of 10.84 percentages in 2015 than UTI equity growth
fund which gave only 3.63 percentages. SBI equity fund
growth option has given higher return of 2.2 in 2012 when
compared to UTI equity growth fund (1.06).

The impact of market condition on the funds is higher in
case of UTI equity fund respectively when compared to SBI
equity fund with beta measure with 1.13, 0.89 in the year
2012. But in the year 2014 SBI equity fund (1.07) beta
measure is higher than that of UTI which is 0.98.

In the year 2015 SBI equity fund had a higher standard
deviation of 10.69 than UTI equity fund 7.08. Hence, UTI
equity fund growth option is better than the SBI equity fund
growth as the SBI equity fund is having higher deviation
than that of UTI equity fund in all the five years.

d) **Sharpe Ratio** e) **Treynor Ratio** f) **Jensens Measures**

<table>
<thead>
<tr>
<th>Year</th>
<th>Sharpe ratio</th>
<th>Treynor ratio</th>
<th>Jensen’s measure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>UTI</td>
<td>SBI</td>
<td>UTI</td>
</tr>
<tr>
<td>2011-2012</td>
<td>2.39</td>
<td>0.30</td>
<td>6.64</td>
</tr>
<tr>
<td>2012-2013</td>
<td>1.55</td>
<td>2.09</td>
<td>15.73</td>
</tr>
<tr>
<td>2013-2014</td>
<td>1.54</td>
<td>2.27</td>
<td>13.81</td>
</tr>
<tr>
<td>2014-2015</td>
<td>1.73</td>
<td>2.78</td>
<td>13.63</td>
</tr>
<tr>
<td>2015-2016</td>
<td>1.12</td>
<td>1.85</td>
<td>8.60</td>
</tr>
</tbody>
</table>

**Source:** Secondary Data

SBI equity fund is better in the year 2015 with Sharpe ratio
of 2.78 respectively when compared to UTI equity fund
growth option whose Sharpe ratio is 1.73. In the year 2016
SBI equity fund (1.85) is higher than UTI equity fund which
is 1.12. Hence SBI equity fund is safer than UTI. Higher the
Sharpe ratio indicates higher safety.

In the year 2015 SBI equity fund has a higher Treynor ratio
of 75.76 than UTI which is 13.63. In the year 2016 SBI
equity has a higher Treynor ratio of 22.51 than UTI which is
8.60. Hence SBI equity growth option is better because a
higher Treynor index/ ratio indicate that we’re getting a
good deal in terms of the return-to-risk ratio.

In the year 2015 SBI has a higher Jensen’s ratio of 20.99
than UTI which is 19.88. But in the year 2016 UTI has a
higher Jensen’s ratio of 18.27 than SBI which is 6.89. In the
year 2012 also UTI Jensen’s ratio which is 12.68 is higher
than that of SBI which is 3.01. Hence UTI is a better option.

(ii) **Balanced fund analysis**

<table>
<thead>
<tr>
<th>Year</th>
<th>Average return</th>
<th>Beta</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>UTI</td>
<td>SBI</td>
<td>UTI</td>
</tr>
<tr>
<td>2011-2012</td>
<td>9.74</td>
<td>9.81</td>
<td>0.93</td>
</tr>
<tr>
<td>2012-2013</td>
<td>12.42</td>
<td>24.22</td>
<td>1.04</td>
</tr>
<tr>
<td>2013-2014</td>
<td>12.07</td>
<td>26.27</td>
<td>1.04</td>
</tr>
<tr>
<td>2014-2015</td>
<td>11.35</td>
<td>15.55</td>
<td>0.81</td>
</tr>
<tr>
<td>2015-2016</td>
<td>14.72</td>
<td>16.10</td>
<td>1.05</td>
</tr>
</tbody>
</table>

**Source:** Secondary Data

In the year 2012 return from UTI balanced fund is 9.74
lower than SBI balanced fund with average return of 9.81.
In the year 2016, SBI balanced fund has given higher
returns of 16.10 percentages compared to UTI balanced
fund with only 14.72 SBI is a better option when compared
to UTI balanced fund.

In the year 2013 and 2014 both SBI is lower beta (SBI
having 1.00 and 1.01 and UTI showing 1.04 and 0.4). But in
the year 2015 SBI has a higher beta ratio of 0.94 than UTI
which is 0.81. But in the year 2016 UTI has a higher beta ratio of 1.05 than SBI which is 0.92. SBI balanced fund has lower beta in the year of 2016,014 and 2013. So this clearly indicates that SBI balanced fund is better the UTI balanced fund. Hence SBI balanced fund has lower risk profile.

The UTI balanced fund has lower risk profile with 14.72 and 11.35 compared to SBI balanced fund with 16.103 and 15.55 in the year 2016 and 2015 respectively. Higher the standard deviation, higher the risk profile of the fund. Hence, UTI balanced fund is better than SBI balanced fund.

d) Sharpe Ratio e) Treynor Ratio f) Jensens Measures

<table>
<thead>
<tr>
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<tbody>
<tr>
<td></td>
<td>UTI</td>
<td>SBI</td>
<td>UTI</td>
</tr>
<tr>
<td>2011-2012</td>
<td>1.60</td>
<td>1.85</td>
<td>16.77</td>
</tr>
<tr>
<td>2012-2013</td>
<td>1.60</td>
<td>1.92</td>
<td>19.00</td>
</tr>
<tr>
<td>2013-2014</td>
<td>1.59</td>
<td>1.92</td>
<td>18.51</td>
</tr>
<tr>
<td>2014-2015</td>
<td>1.59</td>
<td>1.87</td>
<td>22.17</td>
</tr>
<tr>
<td>2015-2016</td>
<td>1.60</td>
<td>1.80</td>
<td>22.43</td>
</tr>
</tbody>
</table>

Source: Secondary Data

SBI balanced fund was better in the year 2012 to 2016 with 1.85, 1.92, 1.92, 1.87, and 1.80 Sharpe ratio compared to UTI balanced fund Sharpe ratio is 1.60, 1.60, 1.59, 1.59, and 1.60. SBI balanced fund is having higher percentage in all the five years. Sharpe ratio indicates that is a safer than UTI balanced fund.

In the year 2015 SBI balanced fund has a higher Treynor ratio of 30.88 when compared to UTI balanced fund Treynor ratio of 22.17 respectively. In the year 2016 also SBI balanced fund had higher Treynor ratio of 31.37 when compared to 22.43 of UTI balanced fund. Hence a lower Treynor ratio indicates that there is a low return to risk ratio.

In the year 2012 SBI has a higher Jensen’s ratio of 19.49 than UTI which is 19.10. In the year 2016 SBI has a marginally higher Jensen’s ratio of 31.87 than UTI which is 28.80. Hence comparing all the five years SBI is a better option.

(iii) Liquid fund analysis

<table>
<thead>
<tr>
<th>Year</th>
<th>Average return</th>
<th>Beta</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>UTI</td>
<td>SBI</td>
<td>UTI</td>
</tr>
<tr>
<td>2011-2012</td>
<td>3.46</td>
<td>6.27</td>
<td>1.00</td>
</tr>
<tr>
<td>2012-2013</td>
<td>4.10</td>
<td>5.20</td>
<td>1.05</td>
</tr>
<tr>
<td>2013-2014</td>
<td>4.00</td>
<td>5.10</td>
<td>1.00</td>
</tr>
<tr>
<td>2014-2015</td>
<td>4.21</td>
<td>6.17</td>
<td>0.95</td>
</tr>
<tr>
<td>2015-2016</td>
<td>5.35</td>
<td>5.68</td>
<td>0.96</td>
</tr>
</tbody>
</table>

Source: Secondary Data

In the year 2012 SBI liquid fund gave average returns of only 6.17 when compared to UTI liquid fund which gave average returns of 24.21. In the year 2016 SBI liquid fund gave 5.68 higher than that of UTI which is 5.35. It performance of SBI liquid fund is marginally higher than UTI liquid fund.

In the year 2012 UTI liquid fund and SBI liquid fund had beta measure of 1.00 and 0.98 respectively. In the year 2016 UTI liquid fund showed same beta of 0.96 than SBI liquid fund 0.96. Hence, UTI liquid fund is better, as it has lower risk profile when compared to SBI liquid fund.

In the year 2015 SBI liquid fund had deviation of 15.12 and UTI liquid fund increased 7.30. Later, in the year 2015 the standard deviation of SBI liquid fund is higher (13.93) than the UTI liquid fund (9.27). It is also clear that the SBI is also having marginally higher deviation than UTI liquid fund. Hence UTI is marginally better than SBI liquid fund.

d) Sharpe ratio e) treynor ratio f) Jensens measures

<table>
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<td>2011-2012</td>
<td>1.63</td>
<td>1.14</td>
<td>9.76</td>
</tr>
<tr>
<td>2012-2013</td>
<td>1.66</td>
<td>0.64</td>
<td>11.15</td>
</tr>
<tr>
<td>2013-2014</td>
<td>1.54</td>
<td>0.99</td>
<td>10.68</td>
</tr>
<tr>
<td>2015-2016</td>
<td>0.94</td>
<td>2.36</td>
<td>9.09</td>
</tr>
</tbody>
</table>

Source: Secondary Data

In the year 2014 UTI has a higher Sharpe ratio of 1.54 than SBI 0.99. But in the year 2015 UTI has lower Sharpe ratio of 1.28 than SBI which is 2.19. But in the year 2016 SBI has a higher Sharpe ratio is 2.36 than UTI is 0.94. The Sharpe ratio which indicates SBI is higher safety.

A high Treynor index/ ratio indicate that, we’re getting a good deal in terms of the return to risk ratio. In the year 2013 UTI has performed better with 11.15 when compared to SBI liquid fund with only 7.99. In the year 2015 and 2016 SBI liquid fund has performed better with 35.19 and 34.00 respectively when compared to UTI liquid fund with only 9.85 and 9.09 Treynor ratio.

In the year 2013 UTI liquid fund is higher Jensen’s ratio of 7.73 than SBI which is 17.54. In the year 2014 SBI has a higher Jensen’s ratio of 7.88 than UTI which is 7.48. In the year 2015 and 2016 SBI has a marginally higher Jensen’s ratio of 11.40 and 10.68 than UTI which is 7.57 and 9.47. Hence comparing the four years SBI is a better option.
Conclusion
To conclude mutual funds are very profitable too for investment, because of their low cost of acquiring fund, tax benefits and diversification of profits and reduction of risk. Both the companies are having many competitions. Many investors have invested in mutual funds with SBI and they think that it provides better returns than UTI. Both the companies are doing considerable achievements in mutual fund industry but SBI is the preferred one.

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