A STUDY ON EQUITY-LINKED SAVING SCHEME (ELSS) AND Its PERFORMANCE ANALYSIS

Swati M. Gurav
Research Scholar
S.D. School of Commerce,
Gujarat University,
Ahmedabad, Gujarat.

ABSTRACT

A mutual fund is a trust that gathers funds from a group of investors with a common investment goal and invests the money in several sorts of securities such as stocks, bonds, debt, etc. An Equity-linked saving scheme is an open-ended equity diversified fund, which provides a tax benefit to investors under section 80C of the Income Tax Act, 1961. Though, with a large number of ELSS funds available, investors face the challenge of choosing suitable ELSS funds to meet their needs. This paper aims to study the performance of equity-linked saving schemes in India. Daily NAV of the selected schemes has been used to calculate the returns from the fund schemes. S&P BSE Sensex has been used for the market portfolio. The data has been taken from various websites and from www.amfiindia.com. The data for the market portfolio has been taken from www.bseindia.com. For analysis, average return, standard deviation, beta, Sharpe measure, Treynor measure and ANOVA were used.

KEYWORDS: ELSS Mutual Fund, NAV, Average Return, Standard Deviation, Beta, Coefficient of determination (R²), Performance analysis, Sharpe Measure, Treynor Measure.

1. INTRODUCTION

A mutual fund is a trust that collects funds from a group of investors with a common investment goal. Then invest the money in a diversified pool of assets with varying degrees of risk. The money is invested in stocks, bonds, money market instruments, or other securities. The income obtained from these investments and the realized capital gain is shared by the shareholders in proportion to the number of shares they own. Therefore, mutual funds are the most appropriate investment for retail investors because they provide the opportunity to invest in a diversified and professionally managed basket of values at a relatively low cost. In India, the starting place of Mutual Funds enterprise may be traced, because of the enactment of the UTI (Unit Trust of India) Act, 1963. India's mutual fund industry is constantly evolving, offering professional management and diversification. Each scheme has its own investment objective, which determines how assets are allocated and invested. The present research paper is dedicated to measuring the risk-adjusted performance of selected equity-linked saving schemes in India. An attempt has been made to evaluate the performance of ELSS with respect to the S&P BSE benchmark index.
EQUITY LINKED SAVING SCHEME (ELSS)

The tax planning strategy is important for taxpayers who aim to reduce tax spending on different types of income and capital gains. Equity Linked Savings Schemes (ELSS) are mutual fund investment plans that help reduce income tax. They are also known as tax-saving funds. Income Tax Act Section 80c allows taxpayers to invest a maximum of 1.5 lakh in particular securities and claim a deduction from their taxable income. ELSS funds invest in equity and market capitalization across different sectors to achieve attractive returns. Being an equity fund, returns are dependent on the price movements of the stocks invested in and the market as a whole. ELSS funds have a lock-in period of 3 years from the date of investment.

Options while making an investment in an ELSS:

a. Growth option – In the growth option, income earned by the fund is not distributed to unitholders. Investors do not earn any dividend; instead, income/profit earned by the fund reflects in the NAV (the NAV increases). Whenever the investor sells his holdings, he will realize long-term capital gain/loss.

b. Dividend option – In this option, the fund distributes income earned by the fund to the investors as dividends. The date of distribution is declared by the fund; however, if the fund has negative income, it will not distribute any dividend. Any dividend received by the investor is not liable for tax in the hands of investors.

c. Dividend reinvestment option – If the investors choose this option, the dividends declared by the fund are reinvested back into the fund on behalf of the investor.

2. LITERATURE REVIEWS

Aashish Jain (2017) in his study made an attempt to evaluate the performance tax savings mutual funds through statistical tools like return, standard deviation, Coefficient of variation, Sharpe ratio, Treynor ratio and Jensen alpha. The main purpose of the study was to compare five ELSS scheme of public sector and private sector. Investing in mutual funds is very popular among small investors to seek tax incentives. Tax-efficient mutual fund plans or equity-linked savings schemes provide investors with tax relief. Therefore, the research was conducted to meet the investors’ goals. It would be concluded from the study that DSP-BR Tax saver fund (G) outperformed amongst selected schemes.

Khalid Ashraf Chisti & Amir Rahman (2018) evaluated the performance of top 10 tax saving mutual fund schemes operating in India. Performance was evaluated according to annual returns and compared to the NIFTY50 benchmark index using various statistical tools like average return, beta, Sharpe ratio, Treynor ratio and Jensen alpha. The study concluded that all ELSS funds outperform the market index in terms of average return and were risky except for certain schemes; with the exception of Aditya Birla Sunlife Tax Relief 96, all funds performed more steadily than the benchmark. In addition, axis fund was the most trustworthy scheme in market; likewise, all the funds have positive relationship with the market.

Richa Pathak (2018) investigated performance of ELSS Growth funds using various tools like Beta, Sharpe ratio, Jensen ratio etc. Also proposed appropriate ELSS mutual fund so that the investors can achieve their investment goals. The research was undertaken for the period of 5 years and 10 ELSS growth funds was analysed. Research shows that the ELSS-Growth Fund is above the benchmark index and was well.

Vibhav Pratap, Dr. Vibha Singh, Ashish Kr. Gautam (2020) examined five best performing mutual fund companies operating in India. To ascertain the top scheme from these companies, they had applied various statistical tools, like standard deviation, beta, Sharpe ratio, Treynor ratio, Jensen alpha. These statistical parameters help authors evaluate the risks and returns provided by these schemes. Using this parameter, it can be concluded that Birla Sunlife tax relief fund 96 performed best in the selected mutual fund ELSS.
A. Panigrahi et al. (2020) evaluated the performance of the top five ELSS schemes of different mutual funds in India. Various statistical tools like average return, coefficient of determination (R2), beta, Sharpe ratio, Treynor ratio and Jensen ratio were used for analysis. Also suggested suitable ELSS schemes for investors to help them achieve their investment goals. It concludes that most funds outperformed the market under the Treynor index and the Sharpe index, and sustained and impressive results have been achieved.

3. RESEARCH METHODOLOGY

The objective of the study:
1. To analyze the performance of selected equity-linked saving schemes in India.
2. To associate the performance selected equity-linked saving schemes in India using performance measures like Sharpe ratio and Treynor ratio.

Sources of data:

The study is based on secondary data which is collected from the different sources like factsheets of different asset management companies and the historical NAV has been taken from www.amfiindia.com. The data for the market portfolio has been taken from www.bseindia.com.

Scope of study:

The study includes five equity-linked saving schemes launched by different Asset Management Companies (AMC). The period of this research study is from Jan 1st, 2018 to Dec 31st, 2020.

Parameters for analysis
1) Average Returns
2) Standard Deviation
3) Beta
4) Coefficient of Determination (R2)
5) Sharpe ratio
6) Treynor ratio

4. RESULTS AND DISCUSSION

Table 1. Return and Risk of Equity-Linked Saving Schemes

<table>
<thead>
<tr>
<th>Schemes</th>
<th>Average return</th>
<th>Total Risk (Standard Deviation)</th>
<th>R2</th>
<th>Beta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quant Tax Plan</td>
<td>0.06443407</td>
<td>1.31704758</td>
<td>0.67072563</td>
<td>0.797040243</td>
</tr>
<tr>
<td>Mirae Asset Tax Saver Fund</td>
<td>0.05704307</td>
<td>1.31835756</td>
<td>0.92984993</td>
<td>0.939390102</td>
</tr>
<tr>
<td>Canara Robeco Mutual Fund</td>
<td>0.06214683</td>
<td>1.20088017</td>
<td>0.89688546</td>
<td>0.840377658</td>
</tr>
<tr>
<td>BOI AXA Tax Advantage Fund</td>
<td>0.04104361</td>
<td>1.18926387</td>
<td>0.77469817</td>
<td>0.773483093</td>
</tr>
<tr>
<td>DSP Tax Saver Fund</td>
<td>0.04005973</td>
<td>1.28055921</td>
<td>0.90500535</td>
<td>0.900184581</td>
</tr>
<tr>
<td>S&amp;P BSE SENSEX</td>
<td>0.05605481</td>
<td>1.35329870</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

The performance of selected equity-linked saving schemes are evaluated using Average return, Standard deviation, Beta, and Coefficient of Determination (R2). From the below Table 1. It can be seen that Quant Tax Plan has the highest return as compared to the benchmark whereas the DSP Tax Saver fund has the lowest return compared to the benchmark. The total risk is measured by standard deviation. Mirae Asset Tax Saver Fund has the highest standard deviation whereas BOI AXA Tax Advantage Fund has the lowest standard deviation as compared to their benchmark. Beta is a measure of systematic risk. Mirae Asset Tax Saver Fund has the highest value of beta whereas BOI AXA Tax Advantage Fund has the lowest value of beta. Quant Tax Plan has the lowest coefficient of determination value whereas Mirae Asset Tax Saver Fund has the highest coefficient of determination value.
Table 2. Sharpe Ratios of Equity-Linked Saving Schemes

<table>
<thead>
<tr>
<th>Schemes</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quant Tax Plan</td>
<td>0.02618521</td>
<td>0.00751534</td>
<td>0.091268</td>
</tr>
<tr>
<td>Mirae Asset Tax Saver Fund</td>
<td>0.01332599</td>
<td>0.05652833</td>
<td>0.046427</td>
</tr>
<tr>
<td>Canara Robeco Mutual Fund</td>
<td>0.00698146</td>
<td>0.04151841</td>
<td>0.059065</td>
</tr>
<tr>
<td>BOI AXA Tax Advantage Fund</td>
<td>0.07539211</td>
<td>0.05909310</td>
<td>0.069593</td>
</tr>
<tr>
<td>DSP Tax Saver Fund</td>
<td>0.04017050</td>
<td>0.05787646</td>
<td>0.034221</td>
</tr>
</tbody>
</table>

Table 2 shows the Sharpe Ratio. It is a measure of the reward to volatility ratio. It gives the excess return of the risk-free return in relation to the total risk of the portfolio. A high Sharpe Ratio specifies the higher risk-adjusted performance of a fund while a low Shape Ratio is an indication of unfavourable performance. Normally, if Sharpe Ratio is superior to the benchmark comparison, the fund’s performance is superior over the market and vice-versa. In the year 2018, Canara Robeco Mutual Fund has a positive Sharpe ratio which shows that it performed well among all five schemes, all other schemes have a negative Sharpe ratio which indicates that they did not perform well with a comparison of their benchmark portfolio. In the year 2019, BOI Axa Tax Advantage Fund has the highest Sharpe ratio which indicates that it performed well among all five schemes whereas Quant Tax Plan has the lowest Sharpe ratio which indicates that this fund does not perform well. In the year 2020, Quant Tax Plan has the highest Sharpe ratio which shows that it performed well among all five schemes whereas DSP Tax Saver Fund has the lowest Sharpe ratio which indicates that this fund does not perform well. Thus, it can be concluded that the performance in terms of Sharpe Ratio of some of the selected equity-linked saving schemes have been satisfactory and some of the funds have underperformed the market index during the study period.

Table 3. Treynor Ratios of Equity-Linked Saving Schemes

<table>
<thead>
<tr>
<th>Schemes</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quant Tax Plan</td>
<td>0.02450533</td>
<td>0.00794276</td>
<td>0.223206745</td>
</tr>
<tr>
<td>Mirae Asset Tax Saver Fund</td>
<td>0.01164608</td>
<td>0.05189776</td>
<td>0.095483678</td>
</tr>
<tr>
<td>Canara Robeco Mutual Fund</td>
<td>0.00006099</td>
<td>0.00038900</td>
<td>0.00123945</td>
</tr>
<tr>
<td>BOI AXA Tax Advantage Fund</td>
<td>0.08082272</td>
<td>0.05664244</td>
<td>0.149689983</td>
</tr>
<tr>
<td>DSP Tax Saver Fund</td>
<td>0.00036062</td>
<td>0.00054013</td>
<td>0.000709291</td>
</tr>
</tbody>
</table>

Table VII presents, another risk-adjusted rate of return is the Treynor ratio, but it uses a beta coefficient to measure risk. The Treynor index measures the relationship between the fund's additional return on risk-free return and market risk, measured by beta. The higher the value of the Treynor ratio, the better the portfolio will perform. Generally, if the Treynor ratio is greater than the benchmark comparison, the portfolio is thought to have outperformed the market and shows superior risk-adjusted performance. In the year 2018, Canara Robeco Mutual Fund has a positive Sharpe ratio which shows that it performed well among all five schemes, all other schemes have a negative Sharpe ratio which indicates that they did not perform well with a comparison of their benchmark portfolio. In the year 2019, BOI Axa Tax Advantage Fund has the highest Treynor ratio which shows that it performed well among all five schemes whereas Canara Robeco Mutual Fund has the lowest Treynor ratio which indicates that it does not perform well. In the year 2020, Quant Tax Plan has the highest Treynor ratio which shows that it performed well among all five schemes whereas DSP Tax Saver Fund has the lowest Treynor ratio which indicates that this fund does not perform well. Thus, it can be concluded that the performance in terms of the Treynor Ratio of...
some of the selected equity-linked saving schemes has been satisfactory and some of the funds have underperformed the market index during the study period.

5. CONCLUSION

The present study has compared the various equity-linked saving schemes. The summary of the results is presented in different tables. This study provides some awareness on mutual fund performance so as to help the common investors in taking the rational investment decisions for allocating their resources in the correct mutual fund schemes. The data used in the study encompassed daily NAVs for the growth schemes. The study engaged benchmark portfolios according to the scheme objective such as S&P BSE Sensex for all equity-linked saving schemes. The performance of selected mutual fund schemes has been calculated in terms of return and risk analysis, and risk-adjusted-performance measures such as the Sharpe ratio and Treynor ratio. The performance of the mutual funds in terms of Average returns, some of the schemes have shown higher returns and the remaining have shown lower returns. In terms of standard deviation, some of the selected schemes are less risky than the market. All the funds have a beta of less than one and positive which implies that they were less risky than the market portfolio. It is clear from the analysis that the Indian asset management company is likely to generate a return above the average of the benchmarks. One of the shortcomings of this study is that only the ELSS mutual fund sample is analyzed, open-ended growth-oriented ELSS schemes have been analyzed. The dividend-oriented ELSS is also the subject of further studies.

6. REFERENCES