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RISK AND RETURN EVALUATION OF EQUITY LINKED SAVING SCHEMES OFFERED BY TOP 10 MUTUAL FUND COMPANIES

SRINIVAS KOLLU

ABSTRACT In India, forty five mutual fund companies are offering equity linked saving schemes for tax saving purpose to the investors. As an investor, we are interested in selecting best mutual fund company that not only help in saving tax but also provide handsome return with least risk. This research paper primarily focuses on selecting the best scheme offered by top ten mutual fund companies operating in India on the basis of asset under management. In order to identify the best scheme from these companies, we have applied statistical parameters such as Jensen Alpha, Beta, standard deviation, Sharpe ratio, Treynor ratio. These statistical parameters helped us in evaluation of risk and return offered by these schemes. It is found that Franklin India Tax Shield performed best in the class among the selected mutual fund schemes.

Keywords Beta, Equity Linked Savings Schemes, Jensen's Alpha, Sharpe Ratio, Standard Deviation

I. INTRODUCTION In India, tax savers have the opportunity to save their tax by investing in Public Provident Fund (PPF), National saving certificates (NSC), Tax saving fixed deposits, life insurance and Equity linked saving schemes. Public Provident Fund, Fixed Deposits and National Saving Certificate are suitable for investors who are willing to get fixed return and lower risk. On the hand Equity Linked Saving Scheme and Life insurance provides superior return than fixed return schemes in long term based upon the performance of the market. Mutual fund's ELSS scheme is the most effective tool for the tax saving for those investors who want to beat inflation through superior return. In order to earn superior return, tax saver has to take more risk compared to other investment schemes. Our research is based upon the identification of superior scheme offered by the top 10 mutual fund companies on the basis of asset under management.

1. Equity Linked Saving Scheme It is a mutual fund scheme that offer twin benefits

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of capital appreciation in equity market and tax saving under section 80C to the investor. As per income tax department, return earned by the scheme is tax free in the hand of investors. It has the shortest lock in period of three years. ELSS invest majority of the money in the equities that is why it carries higher risk. Like other mutual fund schemes, it also comes with three options.

A. Growth option Under this option, investor does not get any periodic return in the form of dividend. Profit/ loss incur on the basis of gain/decline of NAV at the time of redemption. If the value of NAV is greater than the invested NAV then profit or capital gain is made and vice versa for the NAV less than the invested NAV. This option is suitable for investors who believe in long term wealth creation.

B. Dividend Option This option provides investor periodic dividend. The time period of the dividend is not fixed. It depends upon the company. This option is suitable for investors looking for regular income.

C. Dividend Reinvestment Under this option, the dividend declared by the scheme is reinvested back to the scheme. It provides additional tax benefit to the investors as investor can claim additional tax benefit on the reinvested dividend amount.

II. Review of Literature

- Jaya Dev (1996) attempted to evaluate the performance of Mastergain Fund and Magnum Express Fund, growth options. Monthly returns are calculated for a period of 21 months i.e. from June 1992 to March 1994 and are compared to the benchmark returns. As per the study, Mastergain fund has shown better performance than Magnum Express on the basis of Jenson and Treynor measures but its performance is not up to the benchmark as per the Sharpe ratio. Whereas Magnum Express has poor performance as per all the three.
- Gupta and Sehgal (1998) investigated the performance of 80 schemes managed by 25 mutual funds houses, 15 in private sector and 10 in public sector for the time period of June 1992- 96. This study is done for a period of 5 years (June

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1992-96). Performance on the basis of consistency and diversification of funds is evaluated and it is found that portfolio diversification by mutual fund industry has performed well and there was consistency of performance too.

- Rupeet Kaur (2012) did a comparative analysis of growth & dividend tax oriented mutual fund schemes in India with a sample of 18 schemes selected on the basis of monthly returns. The performance on the basis of return analysis of growth schemes are found better than the dividend schemes when compared to benchmark. The dividend schemes are found to be more volatile than the growth schemes.
- Namita Srivastava (2014) analysed empirically the performance indicators of Equity linked saving schemes in India. The factors affecting the performance of ELSS funds are also evaluated. It is concluded in the study that during the period of study, sample ELSS funds provided better return as compared to returns provided by risk free securities. But in terms of average return the ELSS funds are unable to outperform the benchmark portfolio.

III. Objectives

01. To study the performance of selected Equity linked Saving Schemes (ELSS)

02. To identify the best open ended ELSS scheme offered by selected Mutual Fund Companies on the basis of risk and return.

IV. Scope of The Study The present study is based on the open ended Equity Linked Saving Schemes offered by the top ten Mutual Fund companies on the basis of asset under management (AUM). To evaluate the performance of mutual fund schemes, the yearly NAV of these schemes are collected for last five years and risks as well as returns are calculated.

V. Data Collection The study is based upon historical NAVs of these schemes for last five years. It is based upon secondary data collected from the websites of different Mutual Fund Companies.

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VI. Research Methodology To evaluate the performance of the schemes, different statistical tools have been used such as Sharpe Ratio, Treynor Ratio, Jensen's Alpha, Beta and Standard deviation. Risk adjusted returns are calculated using these statistical tools. Portfolio that generates best risk adjusted return is ideal place for saving tax and also provides handsome return with least risk.

A. Statistical Tools

1. Standard Deviation (σ) It is a measure of risk and quantifies the amount of dispersion or variation from the expected return or mean. A Lower standard deviation means lower risk and higher standard deviation means higher risk. It depends upon both the systematic risk and unsystematic risk. Systematic risk is a market risk and unsystematic risk is a company specific risk.

$$\sigma = \sqrt{\frac{\sum(x-\bar{x})^2}{N}}$$

σ =

Where,

σ is the Standard Deviation of Return.

X is the Return for the MF scheme for a particular Period,

x is the average return, N is the Number of years.

2. COVARIANCE It measures the degree to which two variables are correlated. Low correlation of stocks helps in reduction of portfolio risk.

$$\text{Covariance} = \frac{\Sigma(Rxi-\bar{Rx})(Rmi-\bar{Rm})}{N-1}$$

Where,
Rxi = Fund return, Rmi = Market or Index return, N = Number of years.

3. Beta (β) It is a measure of volatility or systematic risk of the security or portfolio in comparison to the market as a whole. Security with Beta less than one indicates that it is less volatile than the market and vice versa for security with value more than one.

$$\beta = \frac{covariance\ (Rx,Rm)}{variance\ Rm}$$

Where, Rx is the return on the MF scheme. Rm is the market return or index. Variance is the square of standard deviation.

4. Sharpe Ratio It helps in measuring risk adjusted return. It is the average return earned on the security or portfolio in excess of risk free return for per unit of volatility or

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total risk. Standard deviation is measure of total risk. Total risk takes into account both systematic risk and unsystematic risk. This ratio helps an investor to identify the best security or portfolio on the basis of risk adjusted return. Greater the value of Sharpe ratio better it is as it means higher risk adjusted return. Risk free return can be government securities like treasury Bills. As Government security has least risk of Default. The concept of Sharpe ratio is given by William F. Sharpe.

$$\text{Sharpe Index} = \frac{\text{Portfolio Average Return (Rp)} - \text{Risk Free Rate of Return (Rf)}}{\text{Standard Deviations of the Portfolio Return}}$$

5. Treynor Ratio It is also the measure of risk adjusted return. Here we are taking Beta as risk of portfolio rather than total risk measured by standard deviation. It is generally observed that if we invest in 10 to 15 securities than we can able to eliminate the unsystematic risk in the portfolio. Our portfolio risk is subject only to systematic risk. It is a market risk which cannot be eliminated with the diversification of the securities. . Higher the Treynor ratio better it is for investment. This concept is developed by Jack Treynor

$$\text{Treynor Index} = \frac{\text{Portfolio Average Return (Rp)} - \text{Risk Free Rate of Return (Rf)}}{\text{Beta Coefficient of Portfolio}}$$

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6. Jensen's Alpha It tells us whether the return earned on the portfolio is in excess of return calculate through capital asset pricing model. The portfolio that generates excess return is said to have positive alpha and negative alpha for portfolio that is generating less return than its theoretical value calculated through capital asset pricing model. This concept is developed by Michael Jensen

$$\text{Alpha } (\alpha) = Rx - Rf + \beta\,(Rm - Rf)$$

CONCLUSION

This paper was an attempt to identify the best ELSS scheme for investment. NAV for period Jan2010- Dec2014 were collected to evaluate the performance of the selected schemes. Various statistical tools i.e. Sharpe ratio, Treynor ratio and Jensen Alpha were used to analyse the risk adjusted return. It has been concluded that out of all the selected schemes, Franklin India Tax Shield ranked first as per Sharpe ratio and Treynor Ratio. It has also scored second as per

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Jensen Alpha. Hence the scheme is offering best risk adjusted return among top ten mutual fund companies on the basis of asset under management for the period under study.

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