ISSN- 2394-5125 VOL 7, ISSUE 04, 2020

Risk and Return Analysis of Selected Tax Savings Mutual Fund Schemes in India

Shubhasish Das,
Research Scholar, Department of Commerce
Assam University, Silchar, Assam
Email: shubhasishdas2@gmail.com

Dr. Rajat Sharmacharjee,
Assistant Professor, Department of Commerce
Assam University, Silchar, Assam
Email: rajatau@rediffmail.com

ABSTRACT
In India the mutual fund industry provides tax savings schemes to the investors with dual objects by providing tax exemption and capital appreciation. There are thirty five tax saving mutual fund schemes in India run by different mutual fund companies for those investors who wants to beat inflation through superior return. This study aims to examine the performance of tax saving mutual fund schemes on the basis of risk and return and also to measure the return with its relative benchmark i.e. S&P BSE 200. Out of thirty five Tax saving schemes, twenty two scheme's NAVs data have been taken for the period of five years from April, 2015 to March, 2020. In order to assess the performance, various statistical tools have taken such as Returns, Standard deviation, Beta, Sharpe ratio, Treynor Ratio and Jensen ratio. The findings of the study states that as compared to the market average, 36% schemes earned better return, 68% schemes were more risky, 27% schemes performed well in terms of Sharpe Ratio, 82% schemes performed well in terms of Treynor Ratio and 50% schemes performed well in terms of Jensen Measure in the study period.
***Keywords*:** Capital appreciation, Tax exemption, ELSS, S&P BSE 200, SEBI and AMFI.

INTRODUCTION
India has witnessed a tremendous economic growth since 1991. With liberalization in the Indian economy, there has been a sea change in the financial market. 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. Since inception in 1964, magnificent growth has been found in mutual fund industry in India. The Average Assets Under Management (AAUM) of Indian Mutual Fund Industry for the month of June 2019 stood at Rs. 25,81,397 crore. The AUM of the Indian MF Industry has grown from Rs. 5.83 trillion as on 30th June, 2009 to Rs. 24.25 trillion as on 30th June, 2019, more than 4 fold increase in a span of 10 years. The MF Industry's AUM has grown from Rs. 9.75 trillion as on 30th June, 2014 to Rs.24.25 trillion as on 30th June, 2019, about 2 ½ fold increase in a span of 5 years. The Industry's AUM had crossed the milestone of Rs. 10 Trillion (Rs.10 Lakh Crore) for the first time in May 2014 and in a short span of about three years, the AUM size had increased more than two folds and crossed Rs. 20 trillion (Rs.20 Lakh Crore) for the first time in August 2017. The Industry AUM stood at Rs.24.25 Trillion (Rs. 24.25 Lakh Crore) as on 30th June, 2019. The total number of accounts (or folios as per mutual fund parlance) as on June 30, 2019 stood at 8.38 crore (83.8 million), while the number of folios under Equity, Hybrid and Solution Oriented Schemes, where in the maximum investment is from retail

segment stood at 7.56 crore (75.6 million). This is 61st consecutive month witnessing rise in the number of folios (*Source: Association of Mutual Funds of India*).

Mutual funds are one of the best investments ever created because it is much cost efficient and very easy to invest in. Mainly there are three types of mutual funds i.e. open ended, closed ended and interval funds. Tax saving mutual funds is one type of open ended mutual fund which is also known as equity linked mutual funds and majority of the small investors opt for it. Tax Saving Mutual Funds Schemes holds the advantage of being the only equity-based tax saving instrument that offers tax deduction on investments up to Rs1, 50,000, under Section 80C of the Income-Tax Act with a minimum lock in period of 3 years only. The Tax saving mutual fund has certain regularity restrictions which makes this fund distinct from other diversified equity funds. Following are some of the distinct regularity restrictions of these funds.

I. Investors cannot redeem, transfer or pledge the units of investment in this fund for 3years. Other equity diversified funds and conventional investment avenues do not have this feature.
II. The Tax saving mutual funds invest into equity and equity related securities up to minimum of 80% of the asset under management.

STATEMENT OF THE PROBLEM

Indian investors had a keen eye on the tax factor also, so the Tax Saving Mutual Funds Schemes or Equity Linked mutual fund schemes is one of the best option to invest in mutual fund under section 80C of the Income Tax Act. Indian investors are risk averse and thus they prefer to invest in safe securities giving them decent returns. There are lots of investment alternatives available to them. But according to past experience, mutual fund industry is having the safest image. Number of investors investing in this industry is rising day-by-day, so it becomes important for them as well as fund houses to know the performance of their mutual funds. Thus this study is an attempt to evaluate the performance of Tax Saving Mutual Funds Schemes in India.

REVIEW OF LITERATURE

Santhi and Gurunathan (2012) in their study on impact of investor's perception and performance of tax saving schemes in mutual fund evaluate the performance of 32 growth oriented open ended equity linked savings scheme using various tools such as Sharpe ratio, Treynor ratio, Jensen measure etc. At the end of the study the author founds that certain schemes performed well than the benchmark index with positive risk return relation.

Ashraf and Sharma (2014) conducted a comparative performance between equity mutual fund schemes and benchmark indexes over the five economic periods. In the study correlation is found between mutual funds and benchmark index returns are significantly high. These funds are also observed to have high R2 values (Coefficient of Determination) indicating the better diversification of the fund portfolio. The beta coefficient in most of the sample schemes was lower than one indicates that these mutual funds and Fama's reported positive net selectivity indicating superior stock selection of the fund managers.

Kadambat, Raghavendra & Singh (2015) in their study shows that ELSS funds, overall has underperformed both against sample Diversified Equity Funds and Benchmark Indexes on a risk adjusted basis. The study also shows that there is inconsistency in performance of ELSS funds over time. The reason for its non popularity could be its investment underperformance.

Kumar and Adhikary (2015) focused on the performance of five Tax Saving Mutual Funds Schemes of India and they find that the private sector Tax Saving Mutual Funds Schemes have outperformed as compared to its market return. However, the performances of public sector Tax Saving Mutual Funds Schemes were not satisfactory. 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. 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.

Mahajan and Sharma (2015) 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 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.

Mohanasundari and Vidhyapriya (2015) in their study found that the major investor's preference and factor analysis is being used, as a tool to know the variance using KMO and Bartlett's test and the factors have been separated. And the performance analyzed using Sharpe, Treynor and Jensen's index. Overall through the study the investor's perception towards mutual fund industry is evaluated as a whole.

After reviewing the various studies which are based on mutual fund it has been found that the various authors have discussed and highlighted about the diverse elements of mutual fund such as Investors perception about mutual fund, Comparative analysis between various mutual fund schemes, Performance of mutual funds, Mutual fund and its various types viz. balanced mutual fund etc. However in the above studies it was found that due emphasis was not given to particularly **Tax Saving Mutual Fund Schemes** in India and abroad both.

OBJECTIVE OF THE STUDY

The study is based on the following objectives:

- To evaluate the performance of Tax Saving Mutual Funds Schemes in India on the basis of risk and return.
- To examine and compare the return of Tax Saving Mutual Funds in India with its relative benchmark.

RESEARCH METHODOLOGY

I. *Nature and Population of Research:* The research work is analytical and empirical in nature and secondary data were used to analyse the NAVs of Tax Saving Mutual Funds Schemes (ELSS). There are thirty five (35) tax saving schemes currently available in India and out of those twenty two (22) schemes were taken for the purpose of study. Both the public sector and private sector Growth (G) and Dividend (D) oriented Tax Saving Mutual Funds Schemes were in this study.

II. *Sources of data:* The present work purely based on secondary data. The daily closing NAVs of selected AMCs were collected from the fact sheets, reports and websites of SEBI, AMFI, SMC Trade Online, Bluechip India, Advisor Khoj etc. and for daily closing benchmark index (S&P BSE Sensex 200) were collected from the Bombay Stock Exchange official website. The various other sources such as different journals, articles, newspapers, magazines etc. were also used for the study.

III. *Periodicity of the study:* This study covers a period of five (5) years from financial year 2015-16 to 2019-20 for the purpose of evaluating the performance of Tax Saving Mutual Funds Schemes. The tax saving schemes were selected on the basis of their inception date i.e. schemes which were started on or before 2001. The schemes which are still in operation, taken into consideration.

IV. *Tools and Techniques for analysis:* The tools and techniques used to analyse the performance and to compare the Tax Saving Mutual Funds Schemes are:

ISSN- 2394-5125 VOL 7, ISSUE 04, 2020

Return: Return of each mutual fund scheme (Rp) and market return (Rm) are calculated to find out the monthly mean returns of a given period. Then average return is calculated to find out mean value of a given period.

$$\boldsymbol{Return = \frac{Current\ value\ of\ units\ of\ a\ period - Prevoius\ value\ of\ units\ of\ a\ period}{Previous\ Value\ of\ units\ of\ a\ period} * 100}$$

Standard deviation (Ϭ)*:* It measures the variation in returns of a mutual fund scheme from its average expected return over a certain period of time. It evaluates the volatility of the fund. Higher SD indicates higher volatility and higher risk of the schemes.

$$\sigma = \sqrt{\frac{\Sigma\ (x-\bar{x})^2}{n}}$$

Beta: Beta measures the volatility of returns from an investment in response to its market return (systematic risk). It is calculated by relating the return of a portfolio with return for the market.

$$\boldsymbol{\beta p = \frac{r_{pm} . Ϭ_p . Ϭ_m}{Ϭ^2 m}}$$

Sharpe Ratio (SR): Sharpe ratio is a measure of risk adjusted return on a portfolio. It is the ratio of effective/expected return to standard deviation of the portfolio. In this study *bank term deposit* rate is taken as risk free investment. The higher Sharpe ratio is better because it implies that the fund has generated higher returns for every unit of risk taken. Again a negative Sharpe ratio is an indicator of low return generated by a portfolio.

$$\textbf{\textit{Sharpe Ratio (SR)}} = \boldsymbol{\frac{Effective\ Return}{Standard\ Deviation}} = \boldsymbol{\frac{Rp - Rf}{SD}}$$

Treynor Ratio (TR): Treynor ratio is the ratio of a fund's average excess return to the fund's beta. It evaluates the performance of a portfolio based on the systematic risk of a fund. A high and positive Treynor ratio indicates a better risk adjusted performance of a fund while a low and negative Treynor ration indicates a poor performance.

$$\boldsymbol{Treyner\ Ratio\ (TR) = \frac{Portfolio\ Return - \ Risk\ Free\ Rate\ of\ Return}{Portfolio\ Beta}}$$

$$\boldsymbol{TR = \frac{Rp - Rf}{\beta p}}$$

Jensen Measure (∝): It is a measure of absolute performance on a risk-adjusted basis. This measures the differential between the actual return of portfolio and its expected return given the level of risk i.e. beta. It measures the ability of active management. A positive alpha indicates that the funds have earned a better return due to superior management skills. A negative alpha indicates that the fund is not performing well. When alpha is equal to zero (0), it indicates neutral performance.

Jensen's Alpha (Differential Return) = Actual Return – Expected Return
= Actual Return – {Risk Free Return + Beta (Market Return – Risk Free Return)}
= Rp - {Rf + β (Rm − Rf)}

ISSN- 2394-5125 VOL 7, ISSUE 04, 2020

SIGNIFICANCE OF THE STUDY

Tax Saving Mutual Fund Schemes is one of the types of mutual fund which provides tax exemption as well as return. From the long run perspective Tax Saving Mutual Fund Schemes, are ideal because in inflationary situation it will provide a healthy return as well. Moreover the result of the study will highlight the various facts of Tax Saving Mutual Fund Schemes to the potential investors in their investment decision on the one hand and on the other hand the mutual fund companies may get an idea about the improvement of the performance of these types of schemes.

LIMITATION OF THE STUDY

The study has some limitations which were pointed out below:

- The result or findings of the study is limited to the authenticity of the data.
- The study is based on NAV data which fluctuates continuously.
- Only open ended (regular) tax saving schemes in India was taken for performance analysis.

RESULTS AND DISCUSSION

To study the performance of twenty two Tax Saving Mutual Fund Schemes of India various tools have been taken to study them in a systematic manner and these were depicted with the help of the following tables.

Table No. 1
Consolidated Return, Standard Deviation and Beta value of selected tax saving schemes

Schemes/Portfolios Name	Return from 2015-2020		Standard Deviation (SD) from 2015-2020		Beta (β) value from 2015-2020	
	Average Portfolio Return	Average Benchmark Return	Average Portfolio SD	Average Market SD	Average Portfolio Beta	H.V/ L.V./I. R.
1. Aditya Birla Sun Life Tax Relief 96-Dividend	**0.861**	**0.837**	4.215	**3.924**	0.009	**L.V.**
2. Baroda ELSS 96-Dividend	0.017	**0.837**	4.364	**3.924**	-0.223	**I.R.**
3. Canara Robeco Equity Tax Saver-Dividend	0.710	**0.837**	4.733	**3.924**	0.065	**L.V.**
4. Franklin India Taxshield-Growth	**1.002**	**0.837**	**3.391**	**3.924**	0.006	**L.V.**
5. Franklin India Taxshield-Dividend	0.427	**0.837**	4.091	**3.924**	-0.016	**I.R.**
6. HDFC Taxsaver-Growth	**0.892**	**0.837**	4.406	**3.924**	-0.067	**I.R.**
7. HDFC Taxsaver-Dividend	-0.012	**0.837**	4.819	**3.924**	-0.289	**I.R.**
8. ICICI Prudential Long Term Equity Fund (Tax Saving)-Growth	**0.981**	**0.837**	**3.742**	**3.924**	0.041	**L.V.**
9. ICICI Prudential Long Term Equity Fund (Tax Saving)-Dividend	0.006	**0.837**	4.455	**3.924**	-0.012	**I.R.**
10. LIC MF Tax Plan-Growth	**0.857**	**0.837**	**3.797**	**3.924**	-0.098	**I.R.**

11. LIC MF Tax Plan-Dividend	0.450	**0.837**	4.200	**3.924**	-0.127	**I.R.**
12. Principal Tax Savings	**0.894**	**0.837**	4.646	**3.924**	-0.189	**I.R.**
13. Quant Tax Plan-Growth	**1.280**	**0.837**	**3.812**	**3.924**	0.012	**L.V.**
14. Quant Tax Plan-Dividend	0.674	**0.837**	4.845	**3.924**	-0.049	**I.R.**
15. SBI Magnum Taxgain-Growth	0.831	**0.837**	**3.870**	**3.924**	-0.008	**I.R.**
16. SBI Magnum Taxgain-Dividend	0.302	**0.837**	4.459	**3.924**	-0.132	**I.R.**
17. Sundaram Diversified Equity Fund-Growth	0.126	**0.837**	6.069	**3.924**	0.138	**L.V.**
18. Sundaram Diversified Equity Fund-Dividend	-0.325	**0.837**	4.492	**3.924**	-0.019	**I.R.**
19. Tata India Tax Savings Fund-Dividend	-0.096	**0.837**	5.570	**3.924**	-0.176	**I.R.**
20. Taurus Tax Shield-Growth	**0.924**	**0.837**	**3.836**	**3.924**	-0.028	**I.R.**
21. UTI Long Term Equity Fund- Growth	0.830	**0.837**	**3.742**	**3.924**	-0.010	**I.R.**
22. UTI Long Term Equity Fund-Dividend	0.007	**0.837**	4.871	**3.924**	-0.056	**I.R.**

Source: *Compiled by the Researcher.*
H.V*= High volatility,* ***L.V****=Less volatility,* ***I.R****=Inverse relation.*

Interpretation of Table 1

In the above **Table no.1** the various calculations related to performances measurement are conducted in three stages by using various tools i.e. Return, Standard deviation and beta value. These are discussed below:

Return: It is evident from the above table that out of 22 Tax saving schemes 8 (36%) schemes performed well with comparison to their benchmark i.e. *S&P BSE Sensex 200* and the remaining 14 schemes performed worst. The schemes which performed well are *Quant Tax Plan-Growth* (1.280), *Franklin India Taxshield-Growth* (1.002), *ICICI Prudential Long Term Equity Fund (Tax Saving)-Growth* (0.981), *Taurus Tax Shield-Growth* (0.924), *Principal Tax Savings* (0.894), *HDFC Taxsaver-Growth* (0.892), *Aditya Birla Sun Life Tax Relief 96-Dividend* (0.861) and *LIC MF Tax Plan-Growth* (0.857) as against the benchmark return (0.837).

Standard Deviation: It is clear from the above table that out of 22 Tax saving schemes, 7 (32%) schemes are less risky in comparison to their market standard deviation and the remaining 15 schemes are high risky. The *Franklin India Taxshield-Growth* (3.391) scheme is less risky among the 22 schemes and *Sundaram Diversified Equity Fund-Growth* (6.069) scheme is very much risky as compared to the market standard deviation (3.924).

Beta: It is evident from the table no.1 that out of 22 Tax saving schemes, 6 (27%) schemes were less volatile in nature in comparison with its market beta value 1. A beta is less than 1 it indicates that the investment is *less risky*, than the market. And the rest of the schemes i.e.16 schemes have negative beta means that the stock moves in opposite direction to the market i.e. *inverse relation with the market return*. If market return is negative, the stock return is positive. If beta value is more than 1 indicates that the investment is more volatile than the benchmark index. It is an aggressive fund. If beta is 1, it indicates that the fund will move in same direction as that of benchmark index. A zero beta means that stocks returns have no relation to the market return which existence is are in nature.

Table No. 2
Consolidated Sharpe Ratio, Treynor Ratio and Jensen Measure of selected tax saving schemes

Schemes/Portfolios Name	Sharpe Ratio (S.R.) from 2015-2020		Treynor Ratio (T.R.) from 2015-2020		Jensen Measure (J.M.) from 2015-2020	
	Average Portfolio S.R.	Average Market S.R.	Average Portfolio T.R.	Average Market T.R.	Average Portfolio J.M.	H.R./L.R.
1. Aditya Birla Sun Life Tax Relief 96-Dividend	0.01657	**0.06073**	**6.30585**	**4.51978**	0.04771	H.R.
2. Baroda ELSS 96-Dividend	-0.18462	**0.06073**	**8.79689**	**3.83695**	-0.68471	L.R.
3. Canara Robeco Equity Tax Saver-Dividend	0.00346	**0.06073**	**3.87759**	**1.63664**	-0.18532	L.R.
4. Franklin India Taxshield-Growth	**0.10318**	**0.06073**	**5.77356**	**4.63168**	0.26524	H.R.
5. Franklin India Taxshield-Dividend	-0.0263	**0.06073**	**3.85961**	**3.52998**	-0.31021	L.R.
6. HDFC Taxsaver-Growth	**0.07233**	**0.06073**	**2.21980**	**1.64998**	0.08747	H.R.
7. HDFC Taxsaver-Dividend	-0.19277	**0.06073**	**4.53291**	**1.98108**	-0.82803	L.R.
8. ICICI Prudential Long Term Equity Fund (Tax Saving)-Growth	0.06007	**0.06073**	-21.0471	**-21.3569**	0.23472	H.R.
9. ICICI Prudential Long Term Equity Fund (Tax Saving)-Dividend	-0.18635	**0.06073**	**67.5726**	**47.8629**	-0.75805	L.R.
10. LIC MF Tax Plan-Growth	**0.07029**	**0.06073**	**5.61372**	**4.58100**	0.17718	H.R.
11. LIC MF Tax Plan-Dividend	-0.06704	**0.06073**	**5.63934**	**4.30204**	-0.22466	L.R.
12. Principal Tax Savings	0.05317	**0.06073**	1.32846	**1.57995**	0.17123	H.R.
13. Quant Tax Plan-Growth	**0.17099**	**0.06073**	-2.31232	**-4.91696**	0.59633	H.R.
14. Quant Tax Plan-Dividend	-0.00218	**0.06073**	-9.42135	**-6.05125**	0.05388	H.R.
15. SBI Magnum Taxgain-	0.0481	**0.0607**	**3.0784**	**2.0569**	0.0325	H.R.

Growth	5	**3**	**7**	**5**	5	
16. SBI Magnum Taxgain-Dividend	-0.19264	**0.06073**	**5.07632**	**2.10564**	-0.82969	L.R.
17. Sundaram Diversified Equity Fund-Growth	-0.0542	**0.06073**	0.42782	**1.62338**	-0.79482	L.R.
18. Sundaram Diversified Equity Fund-Dividend	-0.2258	**0.06073**	0.24647	**2.72684**	-0.84819	L.R.
19. Tata India Tax Savings Fund-Dividend	-0.1054	**0.06073**	-1.83225	**-1.93566**	-0.85316	L.R.
20. Taurus Tax Shield-Growth	**0.0929**	**0.06073**	**2.31538**	**2.19998**	0.14728	H.R.
21. UTI Long Term Equity Fund-Growth	**0.06238**	**0.06073**	**3.35503**	**2.78086**	0.03776	H.R.
22. UTI Long Term Equity Fund-Dividend	-0.0992	**0.06073**	**3.19326**	**1.93314**	-0.80854	L.R.
Source: *Compiled by the Researcher.* ***H.R****= High return****, L.V****=Less return.*						

Interpretation of Table 2

In the above **Table no.2** the various calculations related to performances measurement are conducted in three stages by using various tools i.e. Sharpe ratio, Treynor ratio and Jensen measure. These are discussed below:

Sharpe Ratio: From the above Table no. 2 reveals that after using the Sharpe Ratio tool out of the 22 schemes, 6 schemes performed well in respect with their benchmark index. The schemes like *Franklin India Taxshield-Growth* (0.10318), *HDFC Taxsaver-Growth* (0.07233), *LIC MF Tax Plan-Growth* (0.07029), *Quant Tax Plan-Growth* (0.17099), *Taurus Tax Shield-Growth* (0.0929) *and UTI Long Term Equity Fund-Growth* (0.06238) as against their market Sharpe Ratio (0.06073). The Quant Tax Plan-Growth is the top performer (0.17099) and HDFC Taxsaver-Dividend (-0.19277) is the worst performer in the Sharpe Ratio calculation.

Treynor Ratio: The analysis of Treynor ratio in Table 2 reveals that out of the 22 selected schemes, 18 schemes (82%) have positive Treynor ratio and out of 18 schemes, 15 schemes outperformed compare to the market. *Aditya Birla Sun Life Tax Relief 96-Dividend* (6.30585), *Baroda ELSS 96-Dividend* (8.79689), *Canara Robeco Equity Tax Saver-Dividend* (3.87759), *Franklin India Taxshield-Growth* (5.77356), *Franklin India Taxshield-Dividend* (3.85961), *HDFC Taxsaver-Growth* (2.21980), *HDFC Taxsaver-Dividend* (4.53291), *ICICI Prudential Long Term Equity Fund (Tax Saving)-Dividend* (67.5726), *LIC MF Tax Plan-Growth* (5.61372), *LIC MF Tax Plan-Dividend* (5.63934), *SBI Magnum Taxgain-Growth* (3.07847), *SBI Magnum Taxgain-Dividend* (5.07632), *Taurus Tax Shield-Growth* (2.31538), *UTI Long Term Equity Fund-Growth* (3.35503) *and UTI Long Term Equity Fund-Dividend* (3.19326) *have outperformed their respective market indexes 4.51978, 3.83695, 1.63664, 4.63168, 3.52998, 1.64998, 1.98108, 47.8629, 4.58100, 4.30204, 2.05695, 2.10564, 2.19998, 2.78086 and 1.93314* . It implies that the schemes were able to earn higher return than the market per unit of systematic risk undertaken. ICICI Prudential Long Term Equity Fund (Tax Saving)-Dividend topped the list, while DSP Black Rock Bond Fund-D shows the worst performance.

ISSN- 2394-5125 VOL 7, ISSUE 04, 2020

Jensen Measure: The result of Jensen alpha as depicted in the Table 2 indicates that out of the 22 schemes, only 11 schemes (50%) performed better than the market .It is found that the Jensen alpha was positive in the case of *Aditya Birla Sun Life Tax Relief 96-Dividend* (0.0476), *Franklin India Taxshield-Growth* (0.26524), *HDFC Taxsaver-Growth* (0.08747) , *ICICI Prudential Long Term Equity Fund (Tax Saving)-Growth* (0.23472), *LIC MF Tax Plan-Growth* (0.17718), *Principal Tax Savings* (0.17123), *Quant Tax Plan-Growth* (0.59633), *Quant Tax Plan-Dividend* (0.05388), *SBI Magnum Taxgain-Growth* (0.1603), *Taurus Tax Shield-Growth* (0.14728) and *UTI Long Term Equity Fund-Growth* (0.03776). The remaining 11 schemes (50%) show under performance because of having negative alpha values. Under this measure, *Quant Tax Plan-Growth* holds the first position with the highest alpha value (0.59633) and *Tata India Tax Savings Fund-Dividend* the least rank with the lowest alpha value (-0.85316).

Table No. 3
Summary of the performance analysis

Basis	Rank 1 Schemes
Return	Quant Term Plan-Growth
Standard Deviation	Franklin India Taxshield-Growth
Beta	Franklin India Taxshield-Growth
Sharpe Ratio	Franklin India Taxshield-Growth
Treynor Ratio	Aditya Birla Sun life Tax Relief 96- Dividend
Jensen Measure	Aditya Birla Sun life Tax Relief 96- Dividend

Source: *Compiled by the Researcher*

FINDINGS OF THE STUDY

Major findings of the study are pointed out below:

- As compared to average of the benchmark return (*0.837*) out of 22 schemes, 8(36%) schemes performed well. The *Quant Tax Plan-Growth scheme (1.280*) performed well and *Sundaram Diversified Equity Fund-Dividend (*-0.325*) scheme* was the worst performer among the 22 schemes.
- On the basis of standard deviation out of 22 schemes, 7 (32%) schemes are less risky in comparison to their market standard deviation and the remaining 15 schemes are high risky. The *Franklin India Taxshield-Growth* (3.391) scheme is less risky and *Sundaram Diversified Equity Fund-Growth* (6.069) scheme.
- Out of 22 Tax saving schemes, 6 (27%) schemes are less volatile in nature in comparison with its market beta value 1.
- Out of the 22 schemes, 6 (27%) schemes performed well in respect with their benchmark index (0.06073). The *Quant Tax Plan-Growth* is the top performer *(0.17099)* and *HDFC Taxsaver-Dividend (-0.19277)* is the worst performer according to Sharpe Ratio aspect.
- As compared to its benchmark out of the 22 selected schemes, 18 schemes (82%) have positive Treynor ratio and out of 18 schemes, 15 schemes have outperformed. ICICI Prudential Long Term Equity Fund (Tax Saving)-Dividend topped the list, while DSP Black Rock Bond Fund-D shows the worst performance.
- Out of the 22 schemes, only 11 schemes (50%) performed better having positive Jensen measure. Under this measure, *Quant Tax Plan-Growth* holds the first position with the highest alpha value (0.59633) and *Tata India Tax Savings Fund-Dividend* the least rank with the lowest alpha value (-0.85316).

ISSN- 2394-5125 VOL 7, ISSUE 04, 2020

CONCLUSION

The tax saving schemes introduced in India for more than 23 years ago to encourage retail investor's participation in equity markets by providing them tax incentive. But majority of the tax schemes were underperformed because of their non popularity. After studying the various factors related to performance of Tax Saving Mutual Funds Schemes for the period April, 2015 to March, 2020 and using various tools it can be concluded that majority of the schemes were underperformed. But some of the schemes performed well according to their Return, Sharpe Ratio, Treynor Ratio and Jensen Measure as compared to their benchmark index S&P BSE Sensex 200. Quant Tax Plan- Growth scheme is one of the best schemes which scored as the best plan according to the various performance measures. According to the risk factor the Sundaram Diversified Equity Fund-Growth is high risk fund and in Franklin India Taxshield-Growth less risk associated with it. These funds are directly linked with equity fund, so the risk involved in this kind of schemes are high, but for better fund performances in the long run, an investor have to take some risks and this schemes also provides a lock in period of 3 years which helps the investors money to grow and offer a dimension to its investors by providing tax exemption.

SUGGESTIONS

Some of the suggestions related to the Tax Saving Mutual Fund Schemes are pointed out below:

- For the potential investors it is better to take suggestions from the financial expertise those are related to this field for a longer period.
- A portfolio of an investor should be a balanced one and Tax saving schemes provides that balance to their investors by providing tax relief option as well as capital appreciation.
- Among Growth option and Dividend option Tax Saving Mutual Fund Schemes, the best option is Growth option as it gives the investor's money to grow in compounding basis. As Dividend option schemes performance are very low, so a fund manager may specially design the fund in such a way so that the investors can choose according to their needs and requirements.
- As mutual fund is the most emerging investment options among various investment avenues, so mutual fund companies should make a programme of awareness in each and every year and there should be some experts to address people, by discussing the various pros and cons related to it**.**
- The recent performance of a fund is not a good indicator to an investor to invest in that fund, the past performance and experience of the fund manager and his skill also plays a vital role for investment perspective.
- The investors have to face various kinds of difficulties regarding their investment, so to tackle that grievances regarding to the investors, the mutual fund companies should redress the grievances in a shorter period of time.
- To gain the investors' confidence the mutual fund companies have to allocate the funds in a proper manner and it should be managed in a well diversified way.
- The websites and the mobile applications of the mutual fund companies should be designed in a way so that it can provide all kinds of information's to its investors' regarding investment in a particular fund or the overall portfolio of a particular fund.

ISSN- 2394-5125 VOL 7, ISSUE 04, 2020

REFERENCES

- Asharaf, S. H., & Sharma, D. (2014). Performance Evaluation of Indian Equity Mutual Funds against Established Benchmarks Index. *International Journal of Accounting Research* , 1-7.
- Gala, J., & Gala, A. (2017). *Guide to Indian Mutual Fund.* Mumbai: Buzzingstock Publishing House.
- Kadambat, K. K., S, R. T., & Singh, B. M. (2015). Investment Performance of Equity Linked Savings Schemes (ELSS) of Indian Mutual Funds. *International Journal of Recent Scientific Research* , 4076-4083.
- Kumar, J., & Adhikary, A. (2015). Comparative Analysis of Performance of Tax Saving Mutual Funds: A Case Study of Selected Asset Management Companies. *International Journal of Multidisciplinary Approach and Studies* , 61-72.
- Mahajan, A., & Sharma, A. (2015). Risk and Return Evaluation of Equity Linked Saving Schemes Offered by Top 10 Mutual Fund Companies on The Basis of Asset under Management. *International Journal of Research in Management & Business Studies* , 37-40.
- Mohanasundari, M., & Vidyapriya, P. (2015). Indian Mutual Fund Industry: An Impact of Investor's Perception and Performance of Tax Saving Schemes in Mutual Fund. *International Business Management* , 267-272.
- Pathak, B. V. (2011). *The Indian Financial System.* Noida: Pearson.
- Santhi, N., & Gurunathan, K. (2012). Risk and Return analysis of Equity Linked Savings Schemes of Mutual Funds in India. *Financial Risk Management* , 54-71.
- Venkatesh, N. S., & Kini, B. (1995, August 22). *Association of Mutual Fund of India*. Retrieved March 5, 2018, from Google: https://www.amfiindia.com/nav-history-download