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Investment Performance of ELSS from 2009 to 2021 in India

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Abstract

India offers a wide range of mutual fund investment schemes, but equity-linked savings scheme mutual funds (ELSS Growth plans) are becoming more, and more well-liked because of their special qualities, and benefits for investors. Due to the increasing demand for ELSS, researchers have chosen to use a number of ratios, including the Treynor, Jensen, Sharpe, and expense ratios, to assess the investment performance of different ELSS. 12 Diversified Equity Mutual Funds (DEMF Growth plans), and 27 ELSS funds were chosen for the study based on their market continuity from 2009 to 2021. The risk-adjusted investment performance of ELSS, and DE funds, as determined by the Treynor, Sharpe, Jensen, and expense ratios, was determined to be statistically not significant following the use of Welch's t-test. A statistically equivalent average between ELSS funds, and DEM funds may be shown from the mean of the Treynor, Jensen Alpha, Sharpe, and Expense Ratio metrics. According to this research, ELSS funds and Diversified Equity Funds have comparable risk-adjusted performance.

Keywords: - Expense Ratio, Equity Linked Savings Scheme Mutual Funds (ELSS), Sharpe Ratio, Treynor Ratio, Jensen Alpha Ratio.

I. INTRODUCTION

Investors try to choose the best option from the available options by taking in to account their investing objectives, which include aims for maximum return, and risk tolerance. A well-functioning financial system offers a variety of investment options based on investor's aspirations. It is therefore possible to argue that mutual funds are a good fit for the economy since they produce capital over the whole risk spectrum.

Depending on the total amount invested in the fund over the year, ELSS funds might offer incentives to small investors with minimal income tax obligations. ELSS funds are therefore seen by investors as a means of reducing their income tax liability, which is why they are rightfully called "tax saving mutual funds."

The performance of the top five ELSS plans across numerous mutual funds in India is evaluated by (Panigrahi et al. ,2020). using a range of criteria, such as beta, the Jensen ratio, the Sharpe ratio, and others. In order to assist investors in reaching their financial objectives, it provides suitable investing strategies for ELSS. Numerous funds have advanced under the Treynor, and Sharpe ratios, according to this analysis, with consistent and dependable results throughout the process. It is clear from analyzing performance in terms of average risk that every strategy closely matches the conditions, and market fluctuations.

The performance evaluation of ELSS mutual funds was studied by (Pathak ,2018). with a particular emphasis on growth funds. This study concludes that investor's risk-return relationships vary because mutual funds offer securities. A number of indicators, such as the beta, Jenson ratio, and Sharp ratio, were used in this study to analyze the performance of the ELSS Growth Funds. Proper ELSS programs are suggested by the researcher to assist investors in reaching their financial objectives. The five-year study period included an analysis of ten ELSS growth funds. Comparing ELSS-growth funds to the benchmark index, the analysis reveals that they perform remarkably well.

II. REVIEW OF LITERATURE

The way open-ended equity, and debt mutual funds performs was analysed, and contrasted by (Prabakaran et al. 2023) between January 2018, and December 2022. This study assesses the performance of various schemes to assist individual investors in making well-informed investment decisions. Researchers assessed the performance of the selected funds using a range of statistical methods, such as risk-adjusted value, beta, standard deviation, and daily average return. The results indicate that, compared to debt schemes, equity schemes typically offer high returns at a modest level of risk. However, compared to equity, debt programs carry less risk. According to a survey, asset management companies, and investors should evaluate effective schemes based on performance.

Reviewing mutual fund performance in the Indian capital market is what (Kanodia and Khinchi, 2017). do. After reading through twenty-five study publications, they concluded that additional research is required to better understand how one characteristic can affect another. An increased focus on the examination of ratio performance, and ranks based on foreside ratios is necessary to better comprehend the relationship between funds and the index.

Between April 2011 and March 2015, (Bhagyasree, and Khisori 2016). examined thirty open-ended growth equity funds. Fourteen of the thirty mutual fund schemes in the sample have higher benchmark returns, according to Treynor, and Jenson's measurements, which are based on previous performance assessments. The Sharpe Ratio is positive, and produces higher returns than the risk-free rate for each strategy. The Jensen criterion indicates that 18 plans have a negative alpha, and 12 have a positive alpha. Some underperforming initiatives deal with a variety of issues.

(Goel, and Laveena ,2015). conducted a comparison study on the performance analysis of debt, and equity schemes in HDFC, figured out their daily returns, and identified the investment class that investors want in the context of Birla Sun Life, and ICICI Mutual Fund schemes. There were fifteen plans in the study. According to the analysis, which was conducted between January 1, 2009, and December 31, 2013, the HDFC Infrastructure Fund, the Short-Term Plan, and the Long-Term Gilt Fund were the program's most effective components. Furthermore, the Birla Sun Life Index Fund, and Tax Savings Fund did better than ICICI, and HDFC.

In order to analyze the performance of specific diversified equity mutual funds that were created in India, (Choudhary and Chawla ,2014), carried out a study. The study's secondary objective was to utilize several statistical approaches, such as correlational analysis, standard deviation, beta, coefficient of determination, and Treynor and Sharpe Ratio, to analyze the performance of the chosen mutual funds for a variety of Indian stocks. In terms of both Treynor, and Sharpe ratios, the research findings showed that most of the funds chosen for the study did better.

The findings of (Ashraf, and Sharma ,2014), are tested using regression analysis, Treynor's ratio, Sharp's ratios, Jensen's measure, Fama's measure, various coefficients, and risk-return analysis in an attempt to analyze the risk-free rate of the industry performance for equity mutual funds, and the return of benchmark returns over a five-year period. According to the findings of the Risk Return Analysis, all ten plans beat risk-free rates in terms of returns, but three of them underperform the market, and seven outperform it. The benchmark index is reduced to the Treynor ratios of each mutual fund scheme, and the Sharpe ratio of the benchmark market index, and the three mutual fund skippers. Research on the evaluation of specific ELSS mutual fund scheme's performance was done by (Lilly, and Anusuya,2014). From April 2008 to March 2013, they examined the results of 49 open-ended tax-saving ELSS programs. Treynor, Sharpe, earnings, and Jenson's alpha ratios are used to evaluate the performance of funds. It was found that LIC Nomura MF growth, and dividend plans beat the market, and involved taking on risk after comparison with other schemes.

III. RESEARCH METHODOLOGY

Using a variety of ratios, including the expense ratio, sharpe ratio, Treynor ratio, and Jensen alpha ratio, the current study aimed to assess, and compare the investment performance of Equity Linked Savings Scheme Mutual Funds (Growth) plans with other Diversified Equity Mutual Funds (Growth) plans. This study employed a descriptive research design. The total population of ELSS funds that were in operation from April 1, 2009, to March 31, 2021, is represented by the 27 funds that make up the sample.

The following list includes diversified equity mutual funds with a 12-year track record starting on January 4, 2009 (Kumar, 2016). Welch's t-test was used to analyze the data, and determine if the two independent group means of Diversified Equity Mutual Funds (Growth), and Equity Linked Savings Scheme Mutual Funds (Growth) plans differed from one another. Thus, the following hypothesis is proposed:

H_0 = The average of the different ratios of the Diversified Equity funds, and ELSS funds does not differ significantly. (Expense Ratio, Treynor Ratio, Jensen Alpha Ratio, Sharpe Ratio).

H1 = The average of several ratios between ELSS funds, and Diversified Equity funds differs significantly. The Treynor, Jensen Alpha, Sharpe, and expense ratios

IV. RESULTS AND DISCUSSION

Tables 1 and 2 provide the details of the selected funds.

Table 1. List of Sample of Equity Linked Saving Schemes**.**

Sr. No	Funds	Inception Date	Benchmark
01.	ABSLTP - Reg.- G	Oct-06	S&P BSE SENSEX TRI
02.	ABSLTR - 96 - Reg. - G	Mar-08	S&P BSE 200
03.	BNPPLTEF - G	Jan-06	NIFTY 50
04.	BOIAXATAF- R - G	Feb-09	S&P BSE 500
05.	CRETS - R - G	Feb-09	S&P BSE 100 TRI
06.	DSPTSF - R - G	Jan-07	NIFTY 500 TRI
07.	ELTEF (Tax Savi) - G	Dec-08	NIFTY 500 TRI
08.	FITF - G	Apr-99	NIFTY 500
09.	HDFCTSF - G	Apr-96	Nifty 500 TRI
10.	HSBCTSEF - G	Jan-07	S&P BSE 200 TRI
11.	ICICIPLTEF (Tax Savi) - G	Aug-99	NIFTY 500 TRI
12.	IDFCTAF - R - G	Dec-08	S&P BSE 200 TRI
13.	IITP - G	Dec-06	S&P BSE 200 TRI
14.	JMTGF - G	Apr-08	S&P BSE 500
15.	KTSS - G	Nov-05	NIFTY 500 TRI
16.	L&TTAF - G	Feb-06	S&P BSE 200 TRI
17.	LICMFTP1997 - G	Apr-00	NIFTY 500
18.	NITSF - G	Sep-05	S&P BSE 100 TRI
19.	PPTS	Mar-96	NIFTY 500 TRI
20.	PTSF	Mar-96	Nifty 500 TRI
21.	QTP - G	Mar-00	Nifty 50 TRI
22.	QTSF - D – G	Dec-08	S&P BSE 200 TRI
23.	SBILTEF - G	Mar-93	S&P BSE 500 TRI
24.	SDE - G	Nov-99	S&P BSE 200 TRI
25.	TT - G	Apr-96	S&P BSE 200 TRI
26.	UTILTEF (Tax Savi) - G	Jul-05	Nifty 500
27.	UTIMEPUS	Apr-03	S&P BSE 100

Source: Compiled from sample of Equity Linked Saving Schemes by authors

Table 2. List of Sample of Diversified Equity Funds.

Sr. No	Funds	Inception Date	Benchmark
S&P BSE SENSEX TRI			
01.	TEP/EF - G	29-Jun-04	BSE
02.	JMLCF - G	01-Apr-95	BSE
S&P BSE 100			
03.	SBIBCF – G	14-Feb-2006	BSE
04.	NILCF - G	08-Aug-2007	BSE
S&P BSE 200			

05.	L&TIVF – G	08-Jan-2010	BSE
06.	JMVF - G	02-June-1997	BSE
S&P BSE 500			
07.	NIMCF - G	29-Mar-2005	BSE
08.	SBIMMF - G	29-Sep-2005	BSE
NIFTY 50			
09.	ABSLFEF - G	30-Aug-2002	NSE
10.	ICICIPVDF - G	16-Aug-2004	NSE
NIFTY 500			
11.	KSMF - G	11-Sep-2009	NSE
12.	HDFCEF – G	01-Jan-1995	NSE

Source: Compiled from sample of Diversified Equity Funds by authors

The ELSS, and DEF Growth plan's investment performance is detailed in Tables 3 and 4, which are based on the Treynor, Jensen, Sharpe, and Expense ratios.

Table 3. Investment Performance of Equity Linked Savings Scheme Mutual Funds. (ELSS Growth plans)

Sr. No.	**Funds**	**Expense Ratio**	**Rank**	**Sharpe Ratio**	**Rank**	**Treynor Ratio**	**Rank**	**Jensen Ratio**	**Rank**
1	LICMFTP1997 – G	2.62%	25	1.34	17	10.33	27	-3.42	24
2	CRETS - R – G	2.33%	13.5	0.29	27	16.62	5	4.52	4
3	BNPPLTEF – G	2.36%	15	0.90	25	14.68	14	1.59	14
4	JMTGF – G	2.90%	27	1.43	14	11.48	24	-5.28	27
5	DSPTSF - R – G	1.97%	7	1.48	10	17.30	2	2.77	12
6	KTSS – G	2.55%	23	1.68	2	15.99	8	-0.64	19
7	ABSLTP - Reg. – G	2.52%	20	1.18	21	12.89	19	1.40	16
8	BOIAXATAF - R – G	2.66%	26	1.54	6	17.03	3	3.09	10
9	IITP – G	2.44%	18	1.17	22	16.96	4	4.88	3
10	HSBCTSEF – G	2.55%	23.5	1.27	19	12.33	20	-0.82	20
11	UTILTEF (Tax Savi) – G	2.55%	23.5	1.28	18	11.65	22	-3.79	25
12	ELTEF (Tax Savi) – G	2.43%	17	1.37	15	11.58	23	-1.49	23
13	TT - G– Growth ELSS	2.33%	13.5	1.50	9	15.57	9	3.78	6
14	ICICIPLTEF (Tax Savi)	1.94%	6	1.35	16	17.76	1	5.45	1

15	ABSLTR - 96 - R – G	1.47%	3	1.22	20	15.00	12	3.10	9
16	PPTS	2.53%	21	0.64	26	11.08	25	-1.22	21
17	FITF – G	2.08%	8	1.46	13	14.86	13	4.13	5
18	L&TTAF – G	2.11%	10	1.06	24	13.76	17	1.97	13
19	SDE – G	2.26%	12	1.47	11	11.77	21	5.26	2
20	IDFCTAF - R – G	2.39%	16	1.57	5	15.32	10	3.21	8
21	PTSF	0.71%	1	1.51	7	13.81	16	-1.42	22
22	SBILTEF – G	2.17%	11	1.63	4	13.23	18	0.52	17
23	NITSF – G	2.10%	9	1.47	11	14.63	15	1.47	15
24	HDFCTSF – G	1.89%	4	1.68	2	16.07	7	0.36	18
25	QTSF – D	1.29%	2	1.51	7	16.47	6	3.01	11
26	QTP – G	2.48%	19	1.84	1	15.07	11	3.39	7
27	UTIMEPUS	1.92%	5	1.10	23	10.83	26	-4.39	26

Table 3 displays the ranking of Equity Linked Savings Plans based on a variety of ratios. Consequently, QTP-G ranks top according to the Sharpe ratio, while ICICIPLTEF (Tax Savi) scores first according to the Treynor and Jensen Alpha ratio. Being in the top spot on the expense ratio indicates that PTSF offers a solid return as well.

Table 4. Investment Performance of Diversified Equity Mutual Funds (DEMF Growth plans).

Sr. No.	**Funds**	**Expense Ratio**	**Rank**	**Sharpe Ratio**	**Rank**	**Treynor Ratio**	**Rank**	**Jensen Ratio**	**Rank**
1	TEP/EF – G	2.67%	10	1.54	6	19.50	2	2.33	4
2	JMLCF – G	2.92%	12	1.19	11	9.24	11	-3.51	10
3	SBIBCF – G	1.85%	4	1.39	9	13.73	7	0.96	6
4	NILCF – G	1.99%	7	1.52	7	11.54	9	-0.58	9
5	L&TIVF - G	1.95%	6	1.66	2	10.22	10	-0.32	8
6	JMVF – G	2.90%	11	1.59	3	13.28	8	-5.46	12
7	NIMCF – G	2.12%	9	1.72	1	18.29	3	4.74	2
8	SBIMMF - G	1.86%	5	1.44	8	14.25	5	0.56	7
9	ABSLFEF - G	1.49%	1	1.38	10	14.19	6	2.94	3
10	ICICIPVDF - G	2.07%	8	1.55	5	26.41	1	12.59	1
11	KSMF – G	1.52%	2	1.04	12	9.17	12	-3.67	11
12	HDFCEF - G	1.76%	3	1.59	3	15.76	4	1.71	5

As shown in Table 4, according to the Treynor, and Jensen Alpha ratio, ICICIPVDF-G ranks first, while NIMCF-G ranks first according to the Sharpe ratio. Based on the Expense ratio, ABSLFEF - G is at the first position, which means it provides good returns with minimum expenses.
Table 5 provides result of Welch's t-test.

Table 5. Results Synopsis of the Ratio-Based Hypothesis Testing of Investment Performance.

Hypothesis	Statement of Null Hypothesis	Welch's t Test - p Value	Significance at 0.05	Test Result
H_1	The average expense ratios of diversified equity funds, and ELSS funds do not differ much.	0.503	Not Significant	Null Hypothesis Cannot be Rejected
H_2	The average Sharpe Ratios of Diversified Equity funds, and ELSS funds do not differ much.	0.117	Not Significant	Null Hypothesis cannot be Rejected
H_3	The average Treynor Ratios of ELSS funds, and Diversified Equity funds do not differ much.	0.789	Not Significant	Null Hypothesis cannot be Rejected
H_4	The average Jensen Alpha Ratios of Diversified Equity funds, and ELSS funds do not differ much.	0.926	Not Significant	Null Hypothesis cannot be Rejected

Based on the Treynor, Jensen, Sharpe, and expense ratios, Table 5 shows that there is no discernible difference between the risk-adjusted investment performance of ELSS funds, and Diversified Equity funds. It is evident that ELSS funds, and Diversified Equity Funds have statistically similar averages based on the mean of the Treynor, Jensen, Sharpe, and Expense Ratio metrics. This implies that Diversified Equity Funds, and ELSS funds have comparable risk-adjusted returns.

V. CONCLUSION

This analysis backs up investor's choices between ELSS, and DEMF, and shows that mutual funds provide a better platform for investment, and better returns at a reduced risk. When it comes to the patterns of equity allocation, ELSS funds, and Diversified Equity funds are very similar. While the AUM of Diversified Equity Funds offers flexibility for stock market investments, it is clear that ELSS is an equity-based mutual fund that invests 80% in the stock market, and 20% in debt.

Although ELSS funds have done well overall, the analysis finds that they have not outperformed Diversified Equity funds (DEMF). Individual ELSS fund performance generally consistent during this period, with the exception of a few funds. Apart from a high expense ratio, the study revealed no other noteworthy risk issues that were specific to ELSS funds when compared to investing in diversified equity funds.

Because diversified equity mutual funds offer investors the benefit of steady returns, it can be inferred that they are more appealing to investors than ELSS. The data indicates that, in spite of notable return volatility, the 3-year rolling returns of ELSS funds have generally been increasing. This time frame's returns are entirely dependent on the market's condition.

VI. FUTURE IMPLICATIONS

Mutual funds are a solid option for investors who are risk averse, according to one study. Depending on their interests and risk tolerance, investors can choose from a variety of investment options offered by the mutual fund sector. Presenting a performance analysis, and comparing mutual funds in India based on growth, size, and volume is essential to offer further insight. The assessment of ratio performance, and ranks has to provide more attention in order to better understand the relationship between funds and the index.

The performance of a number of chosen schemes is examined in this study, which also helps practitioners, and academic scholars understand current trends, and situations. According to this study, investors can get more insight into their potential future investment choices. Policymakers, and businesses can utilize this study to help them create policies that are suitable for prospective investors.

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