

STUDY ON COMPARISON OF INVESTMENT PERFORMANCE OF EQUITY LINKED SAVING SCHEME PLANS (ELSS) AND DIVERSIFIED EQUITY FUNDS (DEF) OF INDIAN MUTUAL FUNDS

Radha Vyas*, Pratik K. Desai**

Abstract *The main attractions of mutual funds are high returns and short lock-in periods. The aim of the research is to compare the investment performance of Equity Linked Savings Scheme Mutual Funds (ELSS Growth plans) and Diversified Equity Mutual Funds (DEMF Growth plans) by using various indicators such as NAV, Book Value, Absolute Returns, SIP, CAGR, Standard Deviation, and Coefficient of Variance. The study considered a sample set of 27 ELSS funds, 12 Diversified Funds and 6 Market Indexes that were operational, which continued its business in the fund market from 01/04/2009 to 31/03/2021. The study has applied the Aspin-Welch-Satterthwaite t-test or Welch's t-test to test the difference between two independent groups' means with unequal variances and sample sizes. The results of Welch's t-test suggest that the difference in the average of indicators (NAV, Book Value, Absolute Returns, SIP, CAGR, Standard Deviation and coefficient of variance) of ELSS funds and Diversified Equity funds are not statistically significant as their significance values were reported to be greater than 0.05.*

Keywords: *Equity Linked Savings Scheme Mutual Funds (ELSS), Diversified Equity Mutual Funds (DEMF), NAV, Absolute Return, CAGR*

INTRODUCTION

One alternative for collective investing that exemplifies the indirect investment approach is mutual funds. An organisation that offers services for building, offering, and managing public investment portfolios is known as a mutual fund. Thus, raised funds are combined and allocated among a variety of assets based on the fund's goals and purposes. The profits from the asset's investment pool are allocated to the investors in accordance with the capital they have on hand after the investment management fees are subtracted from the investment fund.

Additionally, mutual funds provide their investors with a great deal of advantages over other direct investment techniques when compared to other forms. Choosing from a pre-made asset portfolio with the investor's goal in mind is one advantage of investing in a mutual fund.

A type of stock mutual fund known as a diversified equity fund makes investments in a variety of industrial businesses'

equity shares and similar instruments, offering notable variations in the overall portfolio of business risk or company-specific risk. Conversely, non-commercial funds—also referred to as “sector funds”—invest exclusively in equity funds and shares. Small investors with low-income tax liabilities can receive incentives from Equity Linked Savings Scheme (ELSS) funds based on the total amount of money invested in the fund over the course of the year. Because of this, investors' view ELSS mutual funds as a way to reduce their income tax burden, which is why they are appropriately referred to as “tax saving mutual funds” (Kumar K. Krishna, 2016).

According to the Income Tax Act, equity mutual funds offer various benefits related to income tax exemption. They also distinguish themselves from other equity mutual fund schemes by means of such funding schemes. The proposed scheme rules define ELSS funds, which invest in equity shares and related instruments up to a maximum of 80 percent of their investable assets (Kumar, 2016). The allocations to equity that distinguish ELSS funds from equity funds are

* D. R. Patel & R. B. Patel Commerce College and Navnirman Institute of Management, D. C. Patel Navnirman Educational Campus, Surat, Gujarat, India. Email: radhanvyas@gmail.com

** D. R. Patel & R. B. Patel Commerce College and Navnirman Institute of Management, D. C. Patel Navnirman Educational Campus, Surat, Gujarat, India.

different. Regarding tax returns, investment, and return on investment inside the investment universe, ELSS mutual funds are equivalent to diversified equity mutual funds. The ELSS Fund was established to encourage the conversion of personal savings into equity because industry expansion necessitates equity acting as a risk capital.

Naturally, investors use the quarterly or ex-post returns function to compute their prior investments and use this as a starting point to project their future returns. When making investments to yield profits, there are several risks. Thus, when assessing the success of investments, it is critical to take into account both types of risk. Thus, assessing the investment's impact through the investment selection process is crucial.

Finding certain investments that provide specific benefits, such as expected investor returns and risk tolerance, is one step in the investment selection process. Investors research historical investment performance to establish their return assumptions. However, because it considers a person's willingness to take risks and their level of commitment, risk tolerance is more important.

When evaluating the success of those investments, a variety of benchmark market indices are available for each mutual fund scheme. The fund administration consistently receives support from the benchmark market index. Investors aim to lose less than the stock market index in a bear market, while in a rising market they want to achieve returns greater than the market index. There is no exception to this particular return category for ELSS funds. Since all ELSS fund schemes establish the benchmark market index, performance comparison with the benchmark market index is crucial for evaluating performance (Kumar K Krishna, 2016).

LITERATURE REVIEW

Roy and Ghosh did a study in 2012 on the evaluation of open-ended ELSS mutual fund schemes' performance in India during the recession (Roy & Ghosh, 2012). They assessed the performance of India's open-ended equity-related saving schemes (ELSS) mutual fund over the previous 12 months, from 2008 to 2009. The net asset value of the chosen equity-linked savings mutual fund schemes at the conclusion of each month was taken into account in this investigation. The researchers concluded that the overall performance of open-ended mutual fund schemes (ELSS) during the recession was fairly negative, after looking at the risk-adjusted, selective, diversified, and market-timing performance of these schemes.

In the context of Birla Sun Life and ICICI Mutual Fund schemes, Goel and Goel (2015) carried out a comparative research of performance analysis of debt and equity schemes

in HDFC, calculating their daily returns and finding the class of investments where investors demand Investment. Fifteen plans were included in the research. The analysis, which ran from January 1, 2009, to December 31, 2013, concluded that the HDFC Infrastructure Fund, Short-Term Plan, and Long-Term Gilt Fund were the most successful parts of the overall program. Additionally, outperforming HDFC and ICICI were the Birla Sun Life Tax Savings Fund and Index Fund.

Kadambatt et al. (2015) stated that after 20 years of operation, investors have not been particularly fond of ELSS funds as a tax-saving investment choice. The substantial investment risk was demonstrated by an investigation of the performance of ELSS funds. ELSS funds offer more effective risk-adjusted returns than benchmark indexes and diversified equity funds. This study examined the ELSS fund's component investment returns and contrasted them with those of the top diversified equity funds. Prolonged periods of underperformance could be one of the factors contributing to its appeal. The analysis also concluded that the performance of ELSS funds varies over time.

The efficacy of the tax-saving schemes offered by five asset management businesses was evaluated by Kumar and Adhikari (2015) during a ten-year period, from 2004–2005 to 2013–2014. According to the research study, private sector tax-saving mutual fund schemes outperformed their market returns, while public sector tax-saving mutual fund schemes performed a little worse. They also observed non-linear correlations between the returns on the fund and the returns on the market (Kumar, 2016).

In their study, Mittal and Agarwal (2015) assessed the growth rates of tax avoidance mutual funds (ELSS) in the Indian mutual fund industry as well as among the general public. Early in the study period, the ELSS growth rate was higher; however, following the 2008 financial crisis, it briefly became negative and then stopped expanding steadily. They assessed the growth rates of tax avoidance mutual funds (ELSS) in the Indian mutual fund industry as well as among the general public. Early in the study period, the ELSS growth rate was greater; but, following the 2008 financial crisis, it briefly became negative and then stopped expanding steadily.

The performance of twenty open-ended equity schemes was examined in Kumar and Srivastava's (2016) research, coupled with the growth option introduced by private sector mutual fund schemes. Four categories—low return and low risk, high return and low risk, high return and high risk, and low return and high danger—are used to group the programs. Every plan that was examined was shown to have average returns higher than those of the Sensex and the BSE 100. The stock market volatility is shielded from small investors by mutual funds and fund managers.

Manek's (2016) study's primary goal was to determine how important portfolio turnover is to mutual fund performance. Understanding management approach funds in relation to open-ended, diversified, growth-oriented equity schemes is beneficial to investors. While active funds can have a high or low portfolio turnover based on the stock selection philosophy of their managers, passive funds have a minimal portfolio ratio. Although portfolio turnover has an impact on returns, scheme returns are closely correlated with benchmark returns. The plan's impact also includes other elements including stock selection, market timing, management style, and strategy.

Singh and Mishra (2019) looked at growth mutual fund schemes' performance in comparison to the Indian benchmark index by analysing the monthly Net Asset Value (NAV) of five open-ended growth schemes, spanning a five-year period from April 2012 to March 2017. For the chosen schemes, the average return, beta, and standard deviation were determined. The acquired data was used to compute three performance analysis metrics: Jensen's alpha, Treynor ratio, and Sharpe ratio. It was discovered that 40% of the schemes had underperformed against the market, while 60% had outperformed it. Investors are expected to find the performance measurement data useful in making future investment decisions.

Kumar et al. (2020), in their study, examine the relationship between stock market returns and mutual fund assets in India. The researchers applied multiple regression analysis and found that there is no significant evidence of a relationship between the two during the study period. Moreover, the researchers also stated that sole market return is not the only factor contributing to changes in AUMs during the study period.

Kaur (2021) evaluated the performance of 20 open-ended short-term debt mutual fund schemes based on their inception date using risk-adjusted measures such as the Sharpe ratio, Treynor ratio, Jensen alpha, Appraisal ratio, MM measure, and Information ratio for the period April 2015 to March 2020. These schemes were categorised as experienced versus non-experienced with a minimum time gap of 4.5 years. The research findings revealed that the best-performing funds during the study period were Baroda Short Term Bond Fund and the Indiabulls Short Term Fund, while JM Financial and Tata Short Term Bond Fund were the worst-performing funds. Furthermore, the study suggested that there is no significant difference in performance between experienced and non-experienced mutual fund schemes. The researcher also commented that investors should consider past performance before investing and recommended choosing mutual funds that do not charge commissions.

Additionally, the study highlighted that the growth of mutual funds in India has been strong in recent years, supported by the introduction of online investment platforms.

RESEARCH METHODOLOGY

The main objective of this paper is to compare the investment performance of Equity-Linked Savings Scheme Mutual Funds (ELSS Growth plans) and Diversified Equity Mutual Funds (DEMF Growth plans) and to accomplish this purpose various indicators such as NAV, Book Value, Absolute Returns, SIP, CAGR, Standard Deviation, Coefficient of Variation are considered. The study is descriptive in nature. This research is quantitative in nature. The study has considered selected ELSS funds, Diversified Funds and Market Indexes. The sample set of ELSS funds includes 27 funds, which is the entire population of ELSS funds that were operational, which continued its business in the fund market from 01/04/2009 to 31/03/2021. The fund with a record of 12 years from 31/03/2009 has been included here. The sample set of market indices for the period from 01/04/2009 to 31/03/2021 includes all the market indexes that were in operation during this period. The group includes 6 market indices, of which 4 are related to Bombay Stock Exchange and 2 to National Stock Exchange of India. Twelve Diversified Mutual Funds were selected on 31.03.2019 based on Assets Under Management (Kumar K Krishna, 2016). The study has applied the Aspin-Welch-Satterthwaite t-test or Welch's t-test, to test the difference between the means of two independent groups with unequal variances and sample size.

RESULTS AND DISCUSSION

Table 1 highlights the performance of ELSS Mutual Funds for the period from April 2009 to March 2021. It is revealed that ICICIPLTEF (Tax Saver) earned the highest average return of 24.66. On the other hand, LICMFTP1997 – G had the lowest average return of 16.77. Further, it is noticeable that no scheme showed a negative average return during the study period. QTP - G displayed the highest total risk (standard deviation) of 45.38 in contrast to every other selected scheme while LICMFTP1997 – G had the lowest risk of 27.30. The highest absolute return is seen from CRETS - R – G, 763.59 %. The lowest return of 382.05 % during this period is seen in LICMFTP1997 – G Funds. On the basis of the ELSS category, CRETS - R – G has the highest CAGR of 19.67, while LICMFTP1997 – G has the lowest CAGR of 14.00. It is observed from Table 1 that the lowest Coefficient of Variation (CV) of BNPPLTEF – G was 1.41.

Table 1: Investment Performance of Equity Linked Savings Scheme Mutual Funds (ELSS Growth Plans)

Sr. No.	Funds/Index	Average	SD	CV	Absolute Returns (%)	CAGR
1	LICMFTP1997 – G	16.77	27.30	1.63	382.05	14.0
2	CRETS - R – G	24.23	37.70	1.56	763.59	19.67
3	BNPPLTEF – G	20.41	28.68	1.41	584.25	17.37
4	JMTGF - G	19.37	32.78	1.69	469.95	15.60
5	DSPTSF - R – G	23.69	36.44	1.54	727.62	19.25
6	KTSS - G	20.89	34.43	1.65	541.24	16.74
7	ABSLTP - Reg. - G	20.29	30.04	1.48	550.82	16.88
8	BOIAXATAF - R – G	22.77	39.53	1.74	633.93	18.06
9	IITP - G	23.56	34.25	1.45	743.00	19.43
10	HSBCTSEF - G	20.11	32.26	1.60	513.89	16.32
11	UTILTEF (Tax Savi) - G	18.73	31.39	1.68	449.70	15.25
12	ELTEF (Tax Savi) - G	18.20	28.65	1.57	448.74	15.24
13	TT - G– Growth ELSS	19.14	31.72	1.66	471.88	15.63
14	ICICIPLTEF (Tax Savi)	24.66	40.88	1.66	734.08	19.33
15	ABSLTR - 96 - R - G	22.48	36.47	1.62	633.97	18.06
16	PPTS	18.97	34.79	1.83	410.75	14.55
17	FITF - G	22.35	35.75	1.60	608.12	17.71
18	L&TTAF - G	21.13	34.17	1.62	571.69	17.19
19	SDE - G	18.72	32.67	1.74	430.19	14.91
20	IDFCTAF - R - G	22.95	38.63	1.68	619.74	17.87
21	PTSF	20.48	32.78	1.60	535.02	16.65
22	SBILTEF - G	19.42	34.40	1.77	479.49	15.76
23	NITSF - G	22.27	39.19	1.76	537.26	16.68
24	HDFCTSF - G	21.28	38.92	1.83	497.90	16.06
25	QTSF - D	21.45	34.86	1.63	559.54	17.01
26	QTP - G	22.09	45.38	2.05	503.19	16.15
27	UTIMEPUS	17.85	29.22	1.64	411.8	14.57

Table 2 gives an idea about the performance of DEMF for the period from April 2009 to March 2021. It is seen from the Table 2 that ICICIPVDF - G earned the highest average return of 29.70, while JMLCF - G had the lowest average return of 14.71. Further, it is noticed that no scheme has shown a negative average return during the study period. ICICIPVDF - G displayed the highest total risk (standard deviation) of 50.47 in contrast to every other selected

scheme, while JMLCF - G had the lowest risk of 25.31. The highest absolute return is observed in from ICICIPVDF - G, at 1039.82%. The lowest absolute return of 306.23% during this period is observed in JMLCF - G Funds. Based on the ELSS category, ICICIPVDF - G has the highest CAGR of 22.47, while JMLCF - G has the lowest CAGR of 12.38. It is observed from Table 2 that the lowest CV of SBIBCF - G is 1.56.

Table 2: Investment Performance of Diversified Equity Mutual Funds (DEMF Growth Plans)

Sr. No.	Funds/Index	Average	SD	CV	Absolute Returns (%)	CAGR
1	TEP/EF - G	23.77	39.21	1.65	670.45	18.54
2	JMLCF - G	14.71	25.31	1.72	306.23	12.38
3	SBIBCF - G	21.10	32.92	1.56	565.70	17.10
4	NILCF - G	19.67	31.04	1.58	482.53	15.81
5	L&TIVF - G	17.18	33.57	1.95	356.63	14.48
6	JMVF - G	20.26	42.82	2.11	388.53	14.13

Sr. No.	Funds/Index	Average	SD	CV	Absolute Returns (%)	CAGR
7	NIMCF - G	25.34	43.27	1.71	723.92	19.20
8	SBIMMF - G	20.32	33.41	1.64	542.69	16.76
9	ABSLFEF - G	21.27	34.21	1.61	569.1	17.15
10	ICICIPVDF - G	29.70	50.47	1.70	1039.82	22.47
11	KSMF - G	15.94	25.86	1.62	349.61	13.89
12	HDFCEF - G	23.54	40.49	1.72	623.98	17.93

The following hypotheses are framed and tested by applying Welch's t-test for the study. Welch's t-test is used to test the difference between two independent group means, namely

ELSS and DEMF, with their variances and sample size being unequal. A two-tailed test is adopted with an alpha value equal to 0.05. The summary of the result is given in Table 3.

Table 3: Summary of Hypotheses

Hypothesis	Statement of Null Hypothesis	Welch's t-Test - p Value	Significance at 0.05	Test Result
H ₀₁	There is no significant difference between ELSS funds and the Diversified Equity funds based on NAV.	0.919	Not Significant	Null Hypothesis cannot be Rejected
H ₀₂	There is no significant difference between ELSS funds and the Diversified Equity funds based on Book Value.	0.824	Not Significant	Null Hypothesis cannot be Rejected
H ₀₃	There is no significant difference between ELSS funds and the Diversified Equity funds based on Absolute Return.	0.902	Not Significant	Null Hypothesis cannot be Rejected
H ₀₄	There is no significant difference between ELSS funds and the Diversified Equity funds based on SIP.	0.649	Not Significant	Null Hypothesis cannot be Rejected
H ₀₅	There is no significant difference between ELSS funds and the Diversified Equity funds based on CAGR.	0.922	Not Significant	Null Hypothesis cannot be Rejected
H ₀₆	There is no significant difference between ELSS funds and the Diversified Equity funds based on Standard Deviation.	0.528	Not Significant	Null Hypothesis cannot be Rejected
H ₀₇	There is no significant difference between ELSS funds and the Diversified Equity funds based on Coefficient Variance.	0.277	Not Significant	Null Hypothesis cannot be Rejected

The results of Welch's t-test suggest that the difference in the average of indicators (NAV, Book Value, Absolute Returns, SIP, CAGR, Standard Deviation, and Coefficient of Variance) of ELSS funds and Diversified Equity funds are not statistically significant as their significance values were reported to be greater than 0.05. These results are also in tune with the study by Kumar (2016).

CONCLUSION

Mutual fund investment is becoming very popular in India. In the present paper, an analysis of the performance of selected schemes highlighted that CRETS - R - G secured the first rank on the basis of Absolute Return and CAGR. Moreover, based on Standard Deviation LICMFTP1997 - G is given first rank and on the basis of Coefficient Variance, BNPPLTEF - G ranked first. This indicates that these funds are performing well based on different indicators compared to other funds in Equity Linked Savings Schemes.

According to Diversified Equity Funds, ICICIPVDF - G ranks first among all indices on the basis of Absolute Return and CAGR. Moreover, based on Standard Deviation JMLCF - G secured the first rank, and on the basis of Coefficient of Variance, SBIBCF - G ranked first. This indicates that their returns are less volatile compared to other funds.

It can be concluded that there is no significant difference between ELSS funds and Diversified Equity Funds based on various performance indicators. Thus, we can say that in terms of risk and return both ELSS funds and Diversified Equity Funds are same (Kumar, 2016).

Implications of the Study

The study that compares the investment performance of Equity-Linked Savings Scheme Mutual Funds (ELSS) Growth Plans and Diversified Equity Mutual Funds (DEMF) Growth Plans in Indian mutual funds has several

implications. First, the results of the study suggest that there is no statistically significant difference in various indicators such as NAV, Book Value, Absolute Returns, SIP, CAGR, Standard Deviation, and Coefficient of Variance between ELSS funds and Diversified Equity funds. This implies that both types of funds have similar performance characteristics.

Second, the study highlights that mutual fund, in general, offer high returns and shorter lock-in periods, making them an attractive investment option. Mutual funds also provide the benefit of choosing from pre-made asset portfolios that align with the investor's objectives.

Furthermore, the study contributes to the existing literature on mutual funds in India. It adds to the body of knowledge by providing evidence on the performance of ELSS funds and Diversified Equity funds and their comparison. Additionally, the study reinforces the importance of considering past performance before investing in mutual funds.

Overall, the implications of the study suggest that mutual funds offer investors an alternative means for collective investment in India, with the potential for high returns, shorter lock-in periods, and the convenience of pre-designed asset portfolios.

Further Research

It is recommended to conduct a more in-depth performance analysis of ELSS funds and Diversified Equity Funds by considering different parameters like Expense Ratio, Sharpe Ratio, Treynor Ratio, Jensen Alpha Ratio, etc. The ELSS funds, the Diversified Equity funds and other mutual fund schemes can also be used as a basis for studying investor preferences and perceptions in the Indian capital market.

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