A COMPARATIVE STUDY ON ONE TIME INVESTMENT AND SYSTEMATIC INVESTMENT PLANS IN MUTUAL FUNDS

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ABSTRACT
Investors have a plethora of investment options, either directly or indirectly. On top of it, new ways of making investment have come up with the advent and development of technology. This is particularly true about the mutual fund industry in that a new way of investment in mutual funds by paying a fixed amount of money on equal intervals, known as systematic investment plan (SIP). It resembles to a recurring deposit scheme of a bank or post office. The SIP has gained a sizable popularity and hence a structured study in Indian context is in place. And it is also important to understand and analyze investor's perception and expectations and unveil some extremely valuable information to support financial decision making of mutual funds. The objective of the present paper include comparison of SIP with lump sum investment using data envelopment analysis (DEA) .No such study has been conducted on comparing SIP with lump sum in India. Hence the maiden effort in this direction will be a very useful for the policy makers, regulators and fund managers for designing strategies for future implications. Since a sizable population is still using the traditional investment options and are deprived of the benefits of SIP, the findings of the proposed research would be of immense benefits to the society.

Keywords: Investment, Mutual funds, Lump sum, Systematic plan, Sharpe ratio.

INTRODUCTION

MF is set up in the form of a trust. The trust has sponsor, trustee, Asset Management Company (AMC) and custodian. It has to be registered with Securities exchange board of India (SEBI). MF is regulated under the SEBI (MF) Regulation, 1996.Mutual Fund is a tool for small investors and for people who cannot invest directly in equity shares and debt instruments. Small investors can take benefits of stock market growth by investing in equity and debt instruments through MF. Though it is a convenient way of investment for the people who do not have knowledge, time or inclination to invest directly in stocks, it does not guarantee return or value of the original investment. The appreciation of investment depends on the performance of fund and stock market. MFs are Financial Intermediaries that pool the financial resources of investors and invest in diversified portfolio of assets. It is a mechanism for pooling resources by issuing units to the investors and investing funds in securities. It is a vehicle for collective investment, where the unit holders become part owners of the investment done under a scheme.

The profit or losses are shared by the investors in proportion to their investments. Portfolio may also have to meet additional requirements to be considered. Different investors have different levels of risk tolerance. Selecting the adequate portfolio for a particular investor is a difficult process. The portfolio manager can hedge the risk related to a particular portfolio along the efficient frontier with partial investment in risk-free assets. The definition of the capital allocation line, and finding where the final portfolio falls on this line, if at all, is a function of:

1. The risk/return profile of each asset
2. The risk-free rate
3. The borrowing rate
4. The degree of risk aversion characterizing an investor.

SCOPE OF THE STUDY

The study will understand the nature and growth of different type of investments in mutual funds. This analysis will be help to identifying best mutual fund in market. Mutual funds offer various services to investors. First of all provides the investor convenience in investing. Mutual funds are very transparent in portfolio and net asset value discloser of various schemes on a daily basis. They provide good returns and liquidity along with the service of a professional fund manager. The various advantages available to an investor to invest in a mutual fund will help overall mutual fund industry to grow in the coming years.

NEED FOR THE STUDY

1. To find out the return of the one time and systematic investment plans.
2. Through that analysis to find out the best investment plan from the comparison statement.
3. To suggest the customers which plan is suitable for their investment in future.

STATEMENT OF THE PROBLEM

How to make an Investment in mutual fund is always a big question to investor. There is always a need for common investor to know how to enter into a market and make profit in it and not exit with disappointment. This paper is an attempt to study and analyse the profitability of one time investment and systematic investment plan in various mutual fund and to aware the investors about which one is more beneficial.

OBJECTIVE OF THE STUDY

1. A comparative study on one time investment and systematic investment in mutual fund.
2. To study the nature of mutual funds and analyze their returns.
3. To evaluate the performance of the portfolio using Sharpe index.
4. To compare the actual performance with one time investment and systematic investment plan.

REVIEW OF LITERATURE

1. **Subha and Bharathi (2007)** determined the performance of selected 51 scheme of open ended mutual fund using the measure like Sharpe ratio, Treynor ratio and Jensen differential measure (1st October 2004 to 30th September 2005) and also analyzed risk return relationship. 91-days T-bills were used as a surrogate for risk force rate of return. S&P CNX Nifty index was used as the benchmark portfolio. The results revealed a mixed performance of sample schemes during the study period. The Sharpe ratio indicated good performance by the majority of the scheme, while in terms of Treynor ratio, only a few schemes showed good performance. The Jensen's measure alpha was positive for 98 per cent of the fund indicating thereby that the funds were generating good returns. The returns of the fund were found positive and hence it was concluded that the performance of mutual funds during the period was satisfactory.

2. **Swaroop and Debasish (2009)** studied the performance of selected schemes of mutual funds based on risk-return relationship models. A total of 23 schemes offered by six private sector mutual funds and three public sector mutual funds were studied (April 1996 to March 2009). The overall analysis concluded that Franklin Templeton and UTI were being the best performers and Birla Sun Life, HDFC and LIC mutual funds indicated below average performance.

3. Kumar (2011) examined the fund's sensitivity to the market fluctuations in terms of beta and appraised the performance of mutual funds with regard to risk return adjustment using Sharpe, Treynor and Jensen Models. BSE National index was used as a proxy for market index. The risk-free rate of return was taken as 6 per cent per annum and the study was conducted on 20 open ended schemes launched by selected five mutual funds for the time period of Jan 2000 to Dec. 2009. The analysis showed that out of 20 schemes, 5 schemes namely Reliance Growth fund, Reliance vision fund, ICICI prudential Tax Plan, HDFC Top 200 and Birla Sun Life Equity fund performed better as compared to benchmark and risk involved was less than the benchmarks.

4. Mansor and Bhatti (2011) in their study ―Risk and Return Analysis on Performance of the Islamic mutual funds: Evidence from Malaysia‖ used monthly aggregate returns to evaluate the performance of the mutual funds for the Islamic and Conventional portfolios in Malaysia, from 1996 to 2009. The evidence from aggregate returns of the 128 Islamic mutual funds and 350 conventional mutual funds, consists of 160 observations denoted that both portfolios have performed better than the market portfolio within the period.

5. Jain (2012) analyzed the performance of equity based mutual funds of 45 schemes offered by 2 private sector companies and 2 public sector companies (April 1997 to April 2012). The analysis has been made using the risk-return relationship and Capital Asset Pricing Model (CAPM). The results indicated that over the period of last 15 years, private sector mutual fund companies (HDFC and ICICI) have outperformed the public sector ones (LIC and UTI). Beta (risk) analysis showed that while HDFC and ICICI mutual funds have been least risky, LIC was found the most risky. 8 out of 9 schemes (89%) of LIC had beta value greater than .80, one of the reasons behind the poor performance of LIC. The overall analysis found that the private sector mutual fund schemes had been less risky and more rewarding as compared to the public sector ones.

6. Kumar and Ali (2013) analyzed the performance of equity large-cap mutual fund schemes of selected companies for five years and compared their performance with the market return. A sample of 10 open ended equity large cap funds growth schemes launched by the public sector, private sector and foreign mutual fund player in Indian was taken by using deliberate sampling method. NSE Index was used as market index and statistical techniques for analysis used included arithmetic mean, standard deviation, correlation, Beta, Treynor ratio, Sharpe ratio, Fama‘s ratio. The results revealed that ICICI Prudential Discovery Fund –IP growth, Birla Life ICICI Prudential

7. Poornima and Sudhamathi (2013) analyzed the performance of 102 growth oriented equity diversified schemes (April 2006 to March 2011) by using Sortino‘s Ratio, which measured the performance of the funds in terms of downside risk. It was found that out of 102 funds, 97 funds performed above the minimum acceptable return level and has performed below the minimum acceptable level. It was concluded that only after evaluating the risk and return using suitable measure the result would provide the investor a careful choice of funds with higher returns.

8. Taneja and Bansal (2014) compared the performance of large cap equity debt mutual fund schemes for the 3 years (2010-2013) using standard deviation, Sharpe's Ratio, Beta, Alpha, R-squared and Treynor Ratio. For computing volatility ratio monthly return for three years of equity funds and the weekly return of 1.5 years of debt fund was taken. It was found that out of all sample equity mutual fund schemes, UTI opportunities fund was the best having the lowest standard deviation, lowest beta, the highest value of alpha, highest Sharpe and Treynor ratio. In case of debt mutual fund scheme UTI short term income fund was not performing well because of highest beta and lowest Sharpe Ratio.

9. Kaur (2014) evaluated the performance of open-ended debt mutual funds with a sample of 23 schemes on the basis of weekly returns in comparison to benchmark return and found out that most of the schemes could not perform better as compared to benchmark and the variability of the schemes were less as compared to the market in case of returns. Schemes were found defensive in nature and were not well diversified.

10. Choudhary and Sehgal (2014) studied the performance of selected Diversified Equity Mutual Fund and found that in terms of average returns, 75% of the diversified fund schemes had shown higher and superior returns whereas 62% of the selected schemes were less risky in terms of standard deviation. The funds were less risky than the market portfolio and highly diversified. 7 out of 8 funds had superior performance under Sharpe and Treynor Ratio.

11. Ahmad and Nomani (2015) examined the performance of safest investment instrument in the security market from investor's perspective by taking five mutual fund large cap schemes, The analysis was carried out by assessing various financial tests like Sharpe Ratio, Standard Deviation, Alpha, and Beta.

RESEARCH METHODOLOGY

Descriptive Research Design was adopted by the research or for the purpose of collecting and analysis of data in manner that aimed to combine relevant data along with economic infrastructure and time in mind. It was conceptual structure within which research conducted, collected, measured and analyzed.

DATA COLLECTION METHOD

Secondary data for is used evaluation of portfolio return. The sources for secondary data are taken fact sheets, Books and websites. This data helped to know about best investment plan portfolio performance.

STATISTICAL TOOLS USED

1. Portfolio Return

$$R_p = \frac{NAV_t - NAV_{t-1}}{NAV_{t-1}}$$

R_p = Return on a scheme

NAV_t = Net Asset Value on first date of current quarter.
NAV_{t-1} = Net Asset Value on first date of previous quarter

2. **Sharpe Ratio**: The Sharpe ratio is calculated by subtracting the risk free rate -and dividing the result by the standard deviation of the portfolio returns. The Sharpe ratio formula is:

$$\text{Sharpe Ratio} = \frac{Rp - Rf}{\sigma}$$

3. **Treynor Index (Tt)** sums up the risk and return of a portfolio in a single number. Treynor index is a reward to volatility of the portfolio. The characteristic line relates the market return to a specific portfolio return without any direct adjustment for risk. This line can be fitted through a least square regression involving a single market portfolio. To use Treynor‘s measure first the CRL of portfolios are fixed by estimating the following equation:

$$Rp = ap + bp\ Rm + ep \qquad T_t = \frac{AR_p - R_f}{\beta_p}$$

DATA ANALYSIS AND INTERPRETATION

Performance Evaluation Of Mutual Fund Equity Schemes

List of selected 9 equity schemes:

Scheme Name	AUM Apr 2013	Inception Date
HDFC Top 200 Fund	11697.96	11 Oct 1996
HDFC Equity Fund	11070.68	1 Jan 1995
HDFC Growth Fund	1152.58	11 Sep 2000
Birla Sun Life Frontline Equity Fund	3226.94	30 Aug 2002
Birla Sun Life Dividend Yield Plus	1244.65	26 Feb 2003
Birla Sun Life Equity Fund	678.38	27 Aug 1998
UTI-Mastershare	2306.50	3 Feb 1987
UTI-Equity Fund	2293.42	30 Jun 1992
UTI-MasterPlus	876.56	30 Jun 1992

This study examines 15 Equity schemes being launched by selected five mutual funds namely HDFC, Birla Sun life, UTI, Reliance & ICICI Prudential. Other two parameters for scheme selection are:

1. Scheme should have been in existence for last 10 years (as on June 30,2013) and
2. Three schemes of each fund house have been chosen on AUM basis in their respective fund houses.

5.4.1 Performance based on Beta:

Table 5.16: List of all selected schemes other than Equity with their calculated Beta and Ranking

Scheme Category	Scheme Name	Beta	Ranking
Equity Linked Saving Scheme(ELSS)	HDFC Taxsaver	0.8422	2
	Birla Sun Life Tax Relief 96	1.0572	5
	ICICI Prudential Tax Plan	0.9097	4
	Reliance Tax Saver	0.8616	3
	UTI Equity Tax Savings	0.8327	1
Hybrid : Equity	HDFC Prudence	1.1440	5
	Birla Sun Life 95	1.0574	3
	ICICI Prudential Balanced	0.9841	1
	Reliance Regular Savings Balanced	1.0951	4
	UTI Balanced	1.0566	2
Hybrid : Debt	HDFC MIP Long-term	1.3189	3
	Birla Sun Life MIP II Wealth 25	1.4656	5
	ICICI Prudential MIP 25	1.4171	4
	Reliance MIP	1.1666	2
	UTI MIS-Advantage Plan	1.1370	1
Income	HDFC Income	1.7540	2
	Birla Sun Life Income	2.0408	4
	ICICI Prudential Income	2.0500	5
	Reliance Income	1.8352	3
	UTI Bond	1.5431	1

INFERENCE:

1. In ELSS category, UTI Equity Tax Saving has lowest beta of 0.83. This is followed by HDFC Tax Saver, Reliance Tax Saver, ICICI Prudentail Tax Gain & Birla Sunlife Tax Relief 96. Only Birla Sun life Tax Relief 96 has beta value above 1 (1.05, Maximum in all 5 schemes) which indicates that scheme‗s return are more volatile compared to its benchmark index.
2. In Hybrid equity (Balanced category), ICICI Prudential Balanced fund is having lowest systematic risk measured in beta terms, whereas HDFC Prudence Fund is having highest beta. UTI Balanced Fund, Birla Sun life 95 & Reliance Regular Savings Balanced fund find their place in the middle with 2,3 and 4th position respectively.
3. UTI MIS-Advantage Plan has lowest beta in Hybrid debt schemes whereas Birla Sun Life MIP II Wealth 25 is having highest. Reliance MIP, HDFC MIP-LTP & ICICI Pru MIP 25 are at 2,3,4th rank respectively with increasing beta values in same order.
4. In Income category, UTI Bond Fund has lowest beta whereas ICICI Prudential Income is at last or 5th position with highest beta. HDFC Income, Reliance Income & Birla Sun life incomes find their places in between along with increasing order of ranks as 2, 3 & 4th.

5.4.2 Performance based on Sharpe Ratio:

Table 5.18: List of all selected schemes other than Equity with their calculate Sharpe Ratio and Ranking

Scheme Category	Scheme Name	Sharpe Ratio	Ranking
Equity Linked Saving Scheme(ELSS)	HDFC Taxsaver	0.0578	3
	Birla Sun Life Tax Relief 96	-0.0013	5
	ICICI Prudential Tax Plan	0.0637	2
	Reliance Tax Saver	0.0664	1
	UTI Equity Tax Savings	0.0295	4
Hybrid : Equity	HDFC Prudence	0.1063	1
	Birla Sun Life 95	0.0989	2
	ICICI Prudential Balanced	0.0568	4
	Reliance Regular Savings Balanced	0.0832	3

	UTI Balanced	0.0411	5
Hybrid : Debt	HDFC MIP Long-term	0.1004	2
	Birla Sun Life MIP II Wealth 25	0.0144	5
	ICICI Prudential MIP 25	0.0432	4
	Reliance MIP	0.1197	1
	UTI MIS-Advantage Plan	0.0644	3
Income	HDFC Income	0.0255	5
	Birla Sun Life Income	0.0776	1
	ICICI Prudential Income	0.0738	2
	Reliance Income	0.0562	3
	UTI Bond	0.0333	4

INFERENCE:

1. Table above depicts value of Sharpe‘s reward to variability ratio (excess return earned over risk free return per unit of risk involved, i.e. per unit of standard deviation). Positive value of the index shows good performance.

2. In ELSS category of schemes, Reliance Tax Saver has highest positive Sharpe ratio (0.0664). One of the five selected schemes in category, Birla Sun Life Tax Relief 96‘s Sharpe ratio is negative which means schemes has performed very poorly on this parameter and on average during last 7 years period under study, could not reward the investors with any excess return over risk free rate of return.

3. HDFC Prudence Fund emerges as top fund in Equity oriented hybrid funds category with positive Sharpe Ratio value 0.1063. Balanced fund from UTI comes at last position with least value among five category peers. Birla Sun Life 95, Reliance Regular Savings Balanced & ICICI Pru Balanced fund are placed in between these two extremes in same order respectively.

4. In Debt oriented hybrid fund category, Monthly Income Plan from Reliance secures first position with highest Sharpe Ratio of 0.1197. HDFC MIP, UTI MIS Advantage Plan & ICICI Prudential MIP 25 comes at 2, 3 & 4th place respectively. Birla Sun Life MIP II Wealth 25 with Sharpe Ratio 0.0144 is least performing fund in this category.

5. In Income Fund Section, Birla Income Fund is best fund on this parameter with Sharpe Ratio of 0.0776 whereas HDFC Income Fund performs worst in category with 0.0255 value of

this ratio. Income Schemes from ICICI Prudential, Reliance & UTI comes at 2nd, 3rd & 4th position respectively with decreasing order of Sharpe Ratio as shown in the table.

FINDINGS

1. Systematic investment plan gives (10.63%) high return compare to one time investment plan (10.2%).
2. The comparison of the two plans the systematic investment plan gives (21.9%) high return compare to one time investment plan (16.60%).
3. Systematic investment plan gives (10.79%) high return compare to one time investment plan (8.65%)
4. The comparison of the two plans the one time investment plan gives (10.63%) high return compare to Systematic investment plan (10.09%).

SUGGESTIONS

The following general suggestion may be of help to the investors.

1. From the study most of the funds getting high return which is invested in the systematic investment plan
2. If the market movement is continue going to be high, it is gives good return for lump sum investors because they are having more no of shares. The same time systematic investors will get low profit reason for that is they will get minimum no of shares in every month.
3. The one time investment gives low return only reason is that the no of shares they investing in is lower compare to systematic investment plan.

CONCLUSION

Choosing best Investment plan is the important work for every investor. Such a evaluation of different mutual fund which is invested in both the plans. The portfolio performance is much better for the systematic investment plan performance when it is compared with one time investment plan performance. The return level is also good during monthly periods. The returns during the different period is also considerable the same. Hence some general suggestions of considering certain criteria like liquidity, growth, income etc in selection of portfolio will help in maintaining as well as increasing the portfolio performance.

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