

PERFORMANCE EVALUATION OF SIP (SYSTEMATIC INVESTMENT PLAN) IN MUTUAL FUNDS: A COMPARATIVE ANALYSIS

Ms. Komal Bansidhar Sharma

Research Scholar

Sheth Damodardas School of Commerce

Gujarat University- 380009

sharma.komal0096@gmail.com

ORCID ID: <https://orcid.org/0000-0001-9121-5362>

ABSTRACT

The Performance Evaluation of Systematic Investment Plans (SIPs) in Mutual Funds is a crucial way of investment avenue analysis, it aids potential investors in making informed decisions. The present study aims to present a comprehensive comparative analysis of SIPs in selected set of top 30 mutual funds in India through SIPs. The research methodology employed in present study is purposive sampling method of mutual fund schemes based on their SIP returns. The evaluation was implemented using the BSE Sensex for benchmark and 91-day Treasury bills for the risk-free rate. Various tools and techniques such as average return, alpha, beta, Sharpe ratio, Treynor ratio, Sortino ratio, standard deviation, downside capture, and upside capture were employed to analyse the risk and performance of mutual funds through SIPs. The study found fluctuations in the performance of selected mutual fund categories. This comparative analysis of mutual fund performance through SIP contributes to assisting investors in making well-informed investment decisions by means evaluating the performance and risk associated with selected mutual fund schemes.

Keywords: Mutual Fund, SIPs, Risk Ratio, Performance Evaluation, Investment Decision, Investors

JEL Classification: E22, G11, G23, G32, P33

INTRODUCTION

Mutual funds have arisen as one of the widely favoured investment instruments which providing investors the juncture to go in the financial markets with a varied portfolio that is administered by professionals. Systematic Investment Plans (SIPs) have acquired significant attention in the sphere of mutual funds owing to their distinctive investment perspective and feasible gain for investors.

A Systematic Investment Plan is an investment avenue that enable investors to systematically invest a fixed sum at specified periods into a mutual fund. These prospective aims to address two fundamental obstacles faced by investors i.e. market timing and investment discipline of investors. With investing a specific amount at consistent intervals, Systematic Investment Plans (SIPs) enable investors to traverse the instability of the financial markets by adopting a structured investment prospective. Systematic Investment Plans (SIPs) offers investors invest a specific amount of sum at regular intervals, typically monthly or quarterly, in selected mutual fund schemes.

Systematic Investment Plans (SIPs) eliminate the need for investors to time the market, SIPs comprise of investing a fixed amount at specific intervals, irrespective of market circumstances. Systematic Investment Plans (SIPs) approach helps to sort out the impact of market fluctuations and lowers the risk of making ill- advised risky investment decisions based on short-term market volatility. Systematic Investment Plans (SIPs) promote investment regimen, with commitment of regular investment schedule, investors develop a habit of consistent saving and investing. Systematic Investment Plans (SIPs) overcome the magnetism to make reckless investment decisions based on sentiments or short-term market trends. SIPs encourage a long-term approach, allowing investors to stay focused on their financial goals and accumulate wealth gradually over time.

Investors can invest flexible amount in Systematic Investment Plans (SIPs). They can select the amount they are competent investing at each interval, SIPs make it suitable for investors with their financial capabilities. Moreover, SIPs offer the opportunity to investors to get benefit from rupee-cost averaging. Investors purchase mutual fund units at regular intervals although they can buy more units at the time when prices are low and lower units at the time when prices are high. This rupee-cost averaging effect of SIPs investment can probably steer to a low-cost average price per unit in the long term.

Systematic Investment Plans (SIPs) are easily accessible to a wide range of investors. Plenty of mutual fund companies and FIs (financial institutions) extends SIP amenities and make it effortless for potential investors to put in place and navigate their investments. Additionally, SIPs cater the choice to simplify the process of investment in which the designated amount is withdrawn automatically from the investor's bank account to simplify the investment journey of investors.

With the potential benefits SIPs also offer market risks obligation. The performance of mutual funds (including through SIPs) is influenced by various factors namely market circumstance, portfolio management, and the substantial securities. Investors needs to carefully evaluate the historical record and performance of mutual funds (including SIPs) before fabricating investment decisions.

Systematic Investment Plan (SIP) is an investment prospective which allows potential investors to invest in mutual funds in a disciplined and systematic style. SIPs help investors overcome market timing challenges and promote long-term investment discipline with investing a fixed amount at regular intervals in disciplined manner. SIPs provide fluidity, rupee-cost averaging, and inclusiveness and develop popular choice for potential investors for building a financial nest egg over a time. Conversely, investors must advised to exercise investigates and take into account financial aim and risk perception before making investment decision in mutual funds through SIPs.

REVIEW OF LITERATURE

Very few research has been conducted on performance evaluation through Systematic Investment Plans (SIPs) in mutual funds, although numerous studies focusing on overall performance evaluation of mutual fund were there. The present study aims reviewing a few existing studies in this area to fill gap:

Hymavathi et al. (2021), had evaluated the performances of selected mutual fund schemes with benchmark with Simple random sampling method using secondary data and tools such as Standard Deviation and Sharpe ratio. The study resulted that mutual fund is fastest growing investment avenue which contribute to economic growth of country by financing funds. The present study also found that economic factors, demographic factors, political factors, and technological factors affects the mutual funds and equity mutual fund schemes are better than debt and hybrid mutual fund schemes. Further, the study suggested that mutual funds are wise decision of investment for first time investors such as students, and government should introduce mutual funds to the students at school level to increase the awareness and understanding related to investment decisions.

Sharma (2021) compared the performance of selected debt, equity and hybrid mutual fund schemes measure the risk and return component of among selected funds. The present study is based on descriptive research design with sample size of 15 companies of each successively debt, equity, and hybrid schemes. The study depicted that investors those are willing to handle risk can opt for equity and hybrid mutual fund portfolio owing to equity and hybrid mutual fund schemes are resilience in highly fluctuating market on the other hand Investors those not comfortable to handle risk can opt for the debt mutual fund portfolio. Moreover, as per present study investors having Expedient investment goals can opt for debt mutual fund portfolios.

Singh (2020), examines the efficiency of selected mutual fund schemes to analyse the success of strategies of mutual funds using Sharpe and Treynor models. The study aims that do mutual fund schemes are financially benefited in highly fluctuated markets. The research depicted that investors are always participative and motivated towards investment where higher returns and lower risk present, but the major obstruction was lake of knowledge or awareness in approaching functional level mutual funds. Moreover, investors are advised to work with best performing mutual fund companies which were analysed through various tools i.e. Standard Deviation, ranking, average return and Shape ratio.

Sharma (2020), tried to analyse the performance and risk and return element of selected five debt mutual fund schemes from Jan. 2017- Dec. 2019. The study resulted that out of five selected companies except 2 companies rest performed well during selected period. The steep decline in NIFTY throughout the year in 2019. Except Axis Corporate Debt fund & HSBC Debt Fund rest can perform well in highly volatile markets.

Dhond (2018), developed a performance evaluation of selected equity mutual fund schemes of HDFC mutual fund schemes. HDFC mutual fund schemes SIPs data based on NAVs for 3 years from 2013-2016 from company website and other authentic sources analysed through standard deviation, beta, Jensen ratio, Sharpe ratio, Treynor Ratio and unsystematic and unsystematic risk. The study found that mutual funds are risky investment, although potential investors can receive high return with proper study. According to the study mutual fund can be the best investment avenue for the middle-class investor if investment it it planned and studied well.

Nagajyothi et al. (2018), made an attempt to evaluate & compare the long- term performance of selected equity fund schemes concerned through SIPs and find the best possible way to risk minimization in long term of selected equity mutual fund schemes (SIPs). To satisfy the aim of study based on NAV, of 5 years from 2011-2016 market return and benchmark return were undertaken using tools- Beta, Alpha, Benchmark, Standard Deviation and Sharpe ratio. The present study found that planning in investment helps investors in satisfying the long- term investments goals. Small investor can move towards SIPs as it is proved an ideal investment tool for investors who prefer less risky investments.

OBJECTIVES OF STUDY:

The present study aims to attain the posterior objectives:

- To evaluate the performance of a selected set of the top 30 mutual funds through Systematic Investment Plans (SIPs).
- To compare the performance of selected mutual fund schemes through SIPs.

RESEARCH METHODOLOGY

TARGET POPULATION

The present Indian investment market comprise of 44 operational mutual fund companies. To achieve the objective of the present study, top 30 mutual fund schemes SIP return based on NAVs has been selected.

SAMPLING METHOD

The present study employed purposive sampling to select mutual fund schemes.

SAMPLING SIZE

To attain the objectives of the present study, a sample of top 30 mutual fund schemes, comprising of Large Cap Fund, Flexi Cap Fund, Mid Cap Fund, Small Cap Fund, ELSS Fund, Focused Fund, Aggressive Hybrid Fund, Short Term Fund, Corporate Bond Fund, Banking and PSU Debt Fund, and index Funds/FTFS has been chosen.

SOURCES OF DATA

To accomplish the goal of present study secondary data from various sources i.e. company fact sheets, mutual fund journals, books, and magazines were employed to evaluate the performance of selected funds. Besides this, facts was gathered from Asset Management Companies (AMC), Association of Mutual Funds in India (AMFI), and other appropriate and authorised websites. The performance evaluation of selected set of funds was conducted using the BSE Sensex as a benchmark, as BSE Sensex offers extensive time series data. 91-day Treasury bills issued by the Government of India were utilized to assess the risk-free rate.

TOOLS FOR RISK ANALYSIS

To analyse the risk and performance evaluation of mutual funds through SIPs multiple tools and techniques employed for the study are as under:

- **Average return:** To measure the funds' performance over a stipulated timeline employed. Average return helps equalize the effects of fluctuations and gives a clearer depiction of long-term performance.

Formula:

$$\text{Average return: } (\text{Ending Value} / \text{Beginning Value}) ^ { (1 / \text{Number of Years}) } - 1$$

- **Alpha:** To measure the risk-adjusted surplus return of a mutual fund when compared to benchmark index. A positive alpha shows outperformance of mutual fund selected scheme and negative alpha shows underperformance of mutual fund selected scheme.

Formula:

$$\text{Alpha} = R_p - (R_f + \beta_p * (R_{bm} - R_f))$$

- **Beta:** To measures the sensitivity of an asset's returns to the overall market returns beta employed. Beta gives indication between assets risk/ systematic risk and market.

Formula:

$$\text{Beta} = \text{Covariance}(\text{asset returns \& market returns}) / \text{Variance}(\text{market returns})$$

- **Sharpe Ratio:** To measures the risk-adjusted return of an investment Sharpe ratio employed. Sharpe ratio measures the excess return (i.e. return above the risk-free rate) over per unit of risk (i.e. standard deviation). A greater Sharpe ratio shows better risk-adjusted performance.

Formula:

$$\text{Sharpe Ratio} = (R_p - R_f) / \sigma_p$$

- **Treynor Ratio:** To measures the excess return over per unit of systematic risk i.e. beta Treynor ratio employed. Treynor ratio helpful to evaluate the performance of a mutual fund related to the market circumstances. A high Treynor ratio considered higher risk-adjusted performance.

Formula:

$$\text{Treynor Ratio} = (R_p - R_f) / \beta_p$$

- **Sortino Ratio:** Sortino ratio also measures the risk-adjusted returns. Sortino ratio considers downside risk which majorly focuses on the standard deviation of negative returns, higher Sortino ratio considered as better performance in downside risk management.

Formula:

$$\text{Sortino Ratio} = (R_p - R_f) / \sigma_d$$

- **Standard Deviation (σ):** To measure the volatility or risk correlated with investment Standard deviation employed. Standard deviation helps to evaluate the volatility in returns of the average return.

Formula:

$$\sigma = \sqrt{(\sum((R_i - R_{avg.})^2) / N)}$$

- **Downside capture:** To measure the major percentage decline in a mutual fund scheme value from a prior highest point to its lowest point. Downside capture give an insight into the mutual funds downside risk and helps to examine strength during market contraction.

Formula:

$$\text{Downside capture} = (P - Q) / P$$

- **Upside Capture:** To measure upside movements in the market, the upside capture ratio comprises the selected funds positive periods return to the benchmark's return across the same periods. Above 100 value shows

outperformed performance of fund the benchmark across positive market intervals and below 100 value shows underperformance of mutual funds.

Formula:

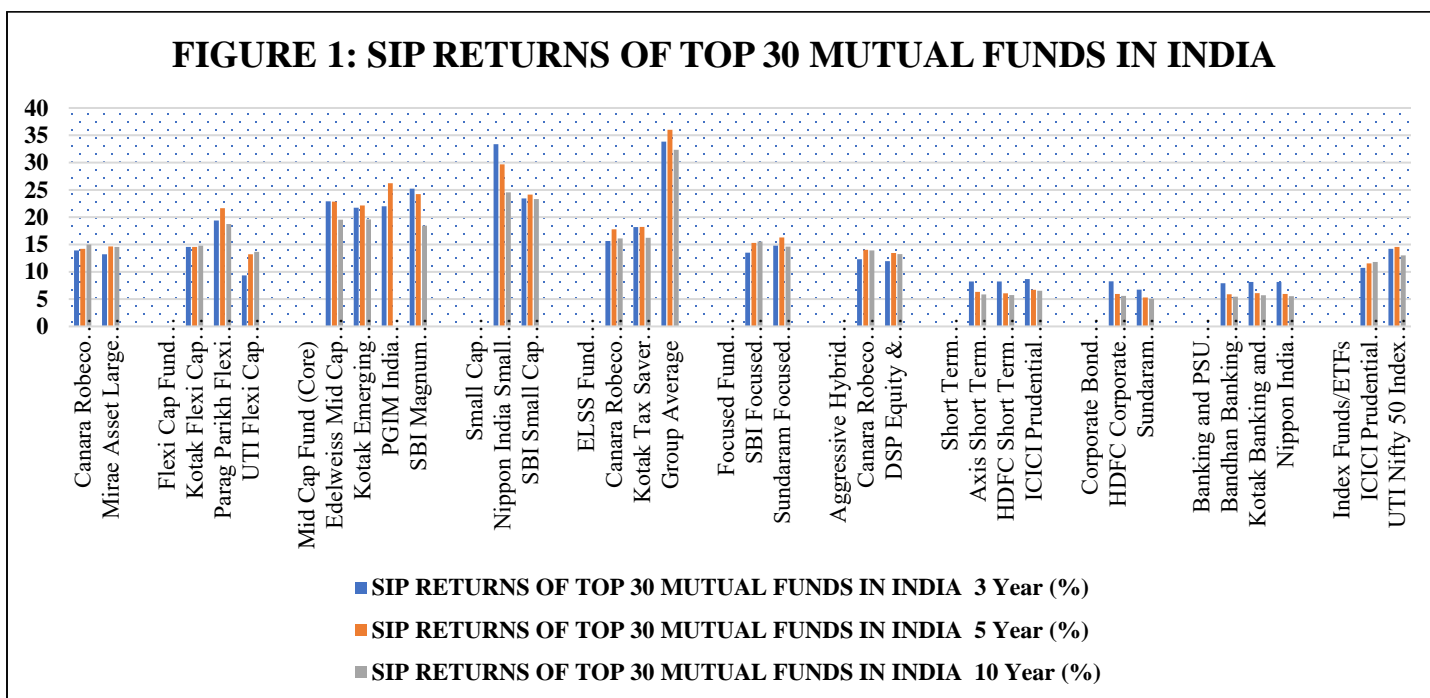
$$\text{Upside Capture} = (\text{Fund's Return during Positive Market Periods} / \text{Benchmark's Return during Positive Market Periods}) * 100$$

DATA ANALYSIS:

| TABLE 1: SIP RETURNS OF TOP 30 MUTUAL FUNDS IN INDIA | | | |
|---|-------------------|-------------------|--------------------|
| Large Cap Fund (Core) | 3 Year (%) | 5 Year (%) | 10 Year (%) |
| Canara Robeco Bluechip Equity Fund - Direct Plan - Growth | 13.9 | 14.22 | 15 |
| Mirae Asset Large Cap Fund - Direct Plan - Growth | 13.2 | 14.65 | 14.55 |
| Group Average | 13.6 | 14.4 | 14.8 |
| Flexi Cap Fund (Core) | 3 Year (%) | 5 Year (%) | 10 Year (%) |
| Kotak Flexi Cap Fund - Direct Plan - Growth | 14.55 | 14.55 | 14.8 |
| Parag Parikh Flexi Cap Fund - Direct Plan - Growth | 19.38 | 21.65 | 18.75 |
| UTI Flexi Cap Fund - Direct Plan - Growth | 9.33 | 13.22 | 13.65 |
| Group Average | 14.4 | 16.5 | 15.7 |
| Mid Cap Fund (Core) | 3 Year (%) | 5 Year (%) | 10 Year (%) |
| Edelweiss Mid Cap Fund - Direct Plan - Growth | 22.9 | 22.85 | 19.55 |
| Kotak Emerging Equity Fund - Direct Plan - Growth | 21.74 | 22.15 | 19.6 |
| PGIM India Midcap Opportunities Fund - Direct Plan - Growth | 22.01 | 26.23 | N/A |
| SBI Magnum Midcap Fund - Direct Plan - Growth | 25.23 | 24.22 | 18.45 |
| Group Average | 23.0 | 23.9 | 19.2 |
| Small Cap Fund (Satellite) | 3 Year (%) | 5 Year (%) | 10 Year (%) |
| Nippon India Small Cap Fund - Direct Plan - Growth | 33.36 | 29.68 | 24.55 |
| SBI Small Cap Fund - Direct Plan - Growth | 23.45 | 24.15 | 23.33 |
| Group Average | 28.41 | 26.92 | 23.94 |
| ELSS Fund (Core/Satellite) | 3 Year (%) | 5 Year (%) | 10 Year (%) |
| Canara Robeco Equity Tax Saver Fund - Direct Plan - Growth | 15.65 | 17.79 | 16.12 |
| Kotak Tax Saver Fund - Direct Plan - Growth | 18.19 | 18.21 | 16.23 |
| Group Average | 33.84 | 36 | 32.35 |
| Focused Fund (Satellite) | 3 Year (%) | 5 Year (%) | 10 Year (%) |
| SBI Focused Equity Fund - Direct Plan - Growth | 13.5 | 15.3 | 15.55 |
| Sundaram Focused Fund - Direct Plan - Growth | 14.8 | 16.3 | 14.63 |
| Group Average | 14.15 | 15.8 | 15.09 |
| Aggressive Hybrid Fund (Core) | 3 Year (%) | 5 Year (%) | 10 Year (%) |
| Canara Robeco Equity Hybrid Fund - Direct Plan - Growth | 12.3 | 14.04 | 13.9 |

| | | | |
|--|-------------------|-------------------|--------------------|
| DSP Equity & Bond Fund - Direct Plan - Growth | 11.95 | 13.45 | 13.25 |
| Group Average | 12.13 | 13.75 | 13.58 |
| Short Term Fund (Core) | 3 Year (%) | 5 Year (%) | 10 Year (%) |
| Axis Short Term Fund - Direct Plan - Growth | 8.23 | 6.32 | 5.85 |
| HDFC Short Term Debt Fund - Direct Plan - Growth | 8.22 | 6.07 | 5.73 |
| ICICI Prudential Short- Term Fund - Direct Fund - Growth | 8.68 | 6.7 | 6.53 |
| Group Average | 8.4 | 6.4 | 6.0 |
| Corporate Bond Fund (Core) | 3 Year (%) | 5 Year (%) | 10 Year (%) |
| HDFC Corporate Bond Fund - Direct Plan - Growth | 8.25 | 5.96 | 5.6 |
| Sundaram Corporate Bond Fund - Direct Plan Growth | 6.75 | 5.3 | 5.04 |
| Group Average | 7.5 | 5.6 | 5.3 |
| Banking and PSU Debt Fund (Core) | 3 Year (%) | 5 Year (%) | 10 Year (%) |
| Bandhan Banking & PSU Debt Fund - Direct Plan - Growth | 7.92 | 5.89 | 5.45 |
| Kotak Banking and PSU Debt Fund - Direct Plan - Growth | 8.15 | 6.09 | 5.7 |
| Nippon India Banking & PSU Debt Fund - Direct Plan - Growth | 8.15 | 5.95 | 5.54 |
| Group Average | 8.1 | 6.0 | 5.6 |
| Index Funds/ETFs | 3 Year (%) | 5 Year (%) | 10 Year (%) |
| ICICI Prudential Nifty Next 50 Index Fund - Direct Plan – Growth | 10.71 | 11.55 | 11.8 |
| UTI Nifty 50 Index Fund - Direct Plan – Growth | 14.2 | 14.57 | 13.01 |
| Group Average | 12.5 | 13.1 | 12.4 |

(Source: Calculated Data)



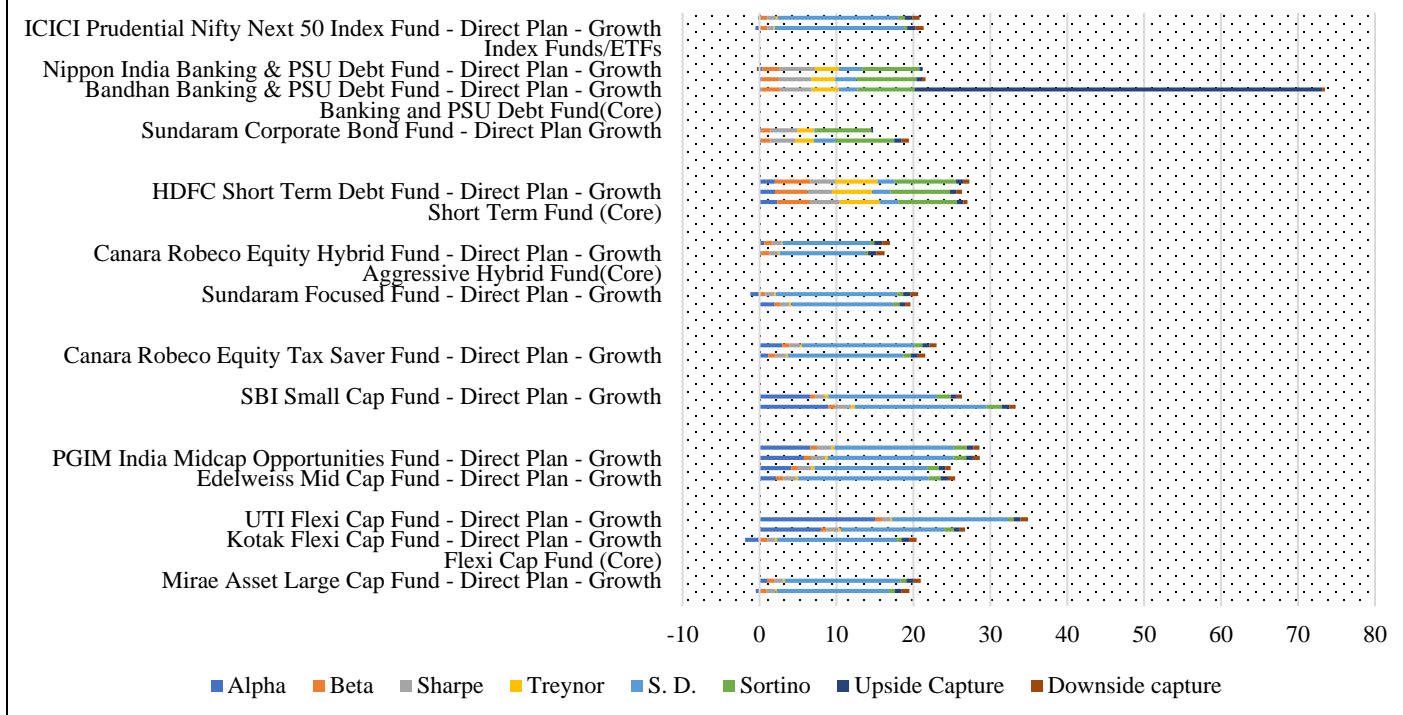
| TABLE 2: RISK RATIOS OF SIP FOR DURATION OF 3 YEARS | | | | | | | | |
|---|--------------|-------------|---------------|----------------|--------------|----------------|-----------------------|-------------------------|
| Large Cap Fund (Core) | Alpha | Beta | Sharpe | Treynor | S. D. | Sortino | Upside Capture | Downside capture |
| Canara Robeco Bluechip Equity Fund - Direct Plan - Growth | -0.48 | 0.93 | 1.15 | 0.19 | 14.56 | 0.73 | 0.93 | 0.99 |
| Mirae Asset Large Cap Fund - Direct Plan - Growth | 0.98 | 0.98 | 1.16 | 0.19 | 15.03 | 0.75 | 0.95 | 0.91 |
| Group Average | 0.25 | 0.96 | 1.16 | 0.19 | 14.80 | 0.74 | 0.94 | 0.95 |
| Flexi Cap Fund (Core) | Alpha | Beta | Sharpe | Treynor | S. D. | Sortino | Upside Capture | Downside capture |
| Kotak Flexi Cap Fund - Direct Plan - Growth | -1.87 | 0.99 | 1.11 | 0.19 | 15.45 | 0.71 | 0.98 | 0.98 |
| Parag Parikh Flexi Cap Fund - Direct Plan - Growth | 7.98 | 0.7 | 1.56 | 0.32 | 13.44 | 1.25 | 0.79 | 0.68 |
| UTI Flexi Cap Fund - Direct Plan - Growth | 15 | 0.92 | 1.12 | 0.2 | 15.08 | 0.7 | 0.92 | 0.96 |
| Group Average | 7.04 | 0.87 | 1.26 | 0.24 | 14.66 | 0.89 | 0.90 | 0.87 |
| Mid Cap Fund(Core) | Alpha | Beta | Sharpe | Treynor | S. D. | Sortino | Upside Capture | Downside capture |
| Edelweiss Mid Cap Fund - Direct Plan - Growth | 2.15 | 0.95 | 1.62 | 0.3 | 16.98 | 1.53 | 0.97 | 0.93 |
| Kotak Emerging Equity Fund - Direct Plan - Growth | 4.16 | 0.83 | 1.79 | 0.36 | 14.65 | 1.5 | 0.85 | 0.71 |
| PGIM India Midcap Opportunities Fund - Direct Plan - Growth | 5.77 | 0.92 | 1.86 | 0.35 | 16.33 | 1.63 | 0.87 | 0.91 |
| SBI Magnum Midcap Fund - Direct Plan - Growth | 6.63 | 0.86 | 1.88 | 0.35 | 15.55 | 1.68 | 0.85 | 0.79 |
| Group Average | 4.68 | 0.89 | 1.79 | 0.34 | 15.88 | 1.59 | 0.89 | 0.84 |
| Small Cap Fund (Satellite) | Alpha | Beta | Sharpe | Treynor | S. D. | Sortino | Upside Capture | Downside capture |
| Nippon India Small Cap Fund - Direct Plan - Growth | 8.94 | 0.9 | 2.12 | 0.42 | 17.15 | 1.96 | 0.97 | 0.82 |
| SBI Small Cap Fund - Direct Plan - Growth | 6.57 | 0.72 | 1.2 | 0.44 | 14.15 | 1.77 | 0.78 | 0.7 |
| Group Average | 7.76 | 0.81 | 1.66 | 0.43 | 15.65 | 1.87 | 0.88 | 0.76 |
| ELSS Fund (Core/Satellite) | Alpha | Beta | Sharpe | Treynor | S. D. | Sortino | Upside Capture | Downside capture |
| Canara Robeco Equity | 1.13 | 0.97 | 1.32 | 0.24 | 15.03 | 0.96 | 0.94 | 0.94 |

| | | | | | | | | |
|---|--------------|--------------|---------------|----------------|--------------|----------------|-----------------------|-------------------------|
| Tax Saver Fund - Direct Plan - Growth | | | | | | | | |
| Kotak Tax Saver Fund - Direct Plan - Growth | 2.96 | 0.93 | 1.42 | 0.22 | 14.58 | 1.05 | 0.95 | 0.9 |
| Group Average | 2.05 | 0.95 | 1.37 | 0.23 | 14.81 | 1.01 | 0.95 | 0.92 |
| Focused Fund(Satellite) | Alpha | Beta | Sharpe | Treynor | S. D. | Sortino | Upside Capture | Downside capture |
| SBI Focused Equity Fund - Direct Plan - Growth | 1.96 | 0.69 | 1.26 | 0.24 | 13.21 | 0.83 | 0.72 | 0.71 |
| Sundaram Focused Fund - Direct Plan - Growth | -1.2 | 0.77 | 1.15 | 0.2 | 15.81 | 0.73 | 0.98 | 0.99 |
| Group Average | 0.38 | 0.73 | 1.205 | 0.22 | 14.51 | 0.78 | 0.85 | 0.85 |
| Aggressive Hybrid Fund(Core) | Alpha | Beta | Sharpe | Treynor | S. D. | Sortino | Upside Capture | Downside capture |
| Canara Robeco Equity Hybrid Fund - Direct Plan - Growth | 0.23 | 1.08 | 1.18 | 0.14 | 11.06 | 0.42 | 1.07 | 1.08 |
| DSP Equity & Bond Fund - Direct Plan - Growth | 0.63 | 1.07 | 1.16 | 0.13 | 11.4 | 0.51 | 1.04 | 1.02 |
| Group Average | 0.43 | 1.075 | 1.17 | 0.135 | 11.23 | 0.465 | 1.055 | 1.05 |
| Short Term Fund (Core) | Alpha | Beta | Sharpe | Treynor | S. D. | Sortino | Upside Capture | Downside capture |
| Axis Short Term Fund - Direct Plan - Growth | 2.33 | 4.21 | 3.87 | 5.2 | 2.42 | 7.6 | 0.85 | 0.55 |
| HDFC Short Term Debt Fund - Direct Plan - Growth | 2.01 | 4.22 | 3.19 | 5.23 | 2.36 | 7.75 | 0.85 | 0.71 |
| ICICI Prudential Short Term Fund - Direct Fund - Growth | 2 | 4.65 | 3.24 | 5.45 | 2.23 | 7.99 | 1 | 0.73 |
| Group Average | 2.11 | 4.36 | 3.43 | 5.29 | 2.34 | 7.78 | 0.90 | 0.66 |
| Corporate Bond Fund(Core) | Alpha | Beta | Sharpe | Treynor | S. D. | Sortino | Upside Capture | Downside capture |
| HDFC Corporate Bond Fund - Direct Plan - Growth | 0.21 | 1.22 | 3.21 | 2.43 | 2.71 | 7.72 | 0.98 | 0.94 |
| Sundaram Corporate Bond Fund - Direct Plan Growth | 0.23 | 1.21 | 3.45 | 2.23 | 0.23 | 7.18 | 0.24 | -0.09 |
| Group Average | 0.22 | 1.22 | 3.33 | 2.33 | 1.47 | 7.45 | 0.61 | 0.43 |
| Banking and PSU Debt Fund(Core) | Alpha | Beta | Sharpe | Treynor | S. D. | Sortino | Upside Capture | Downside capture |

| | | | | | | | | |
|--|--------------|-------------|---------------|----------------|--------------|----------------|-----------------------|-------------------------|
| Bandhan Banking & PSU Debt Fund - Direct Plan - Growth | 0.24 | 2.39 | 4.12 | 3.55 | 2.44 | 7.4 | 53 | 0.35 |
| Kotak Banking and PSU Debt Fund - Direct Plan - Growth | 0.26 | 2.25 | 4.22 | 3.12 | 2.75 | 7.8 | 0.73 | 0.45 |
| Nippon India Banking & PSU Debt Fund - Direct Plan - Growth | 0.39 | 2.23 | 4.6 | 3.12 | 3 | 7.45 | 0.41 | -0.34 |
| Group Average | 0.30 | 2.29 | 4.31 | 3.26 | 2.73 | 7.55 | 18.05 | 0.15 |
| Index Funds/ETFs | Alpha | Beta | Sharpe | Treynor | S. D. | Sortino | Upside Capture | Downside capture |
| ICICI Prudential Nifty Next 50 Index Fund - Direct Plan - Growth | -0.52 | 1.01 | 0.83 | 0.16 | 16.8 | 0.4 | 1.1 | 1.03 |
| UTI Nifty 50 Index Fund - Direct Plan - Growth | -0.2 | 1.02 | 1.15 | 0.2 | 15.73 | 0.8 | 0.99 | 0.93 |
| Group Average | -0.72 | 2.03 | 1.98 | 0.36 | 32.53 | 1.2 | 2.09 | 1.96 |

(Source : Calculated Data)

FIGURE 2: RISK RATIOS OF SIP FOR DURATION OF 3 YEARS



RESULT AND DISCUSSION:

Based on the above study on the SIP returns of selected top 30 mutual funds in India (TABLE 1), the study observed the following movements:

1. Large Cap Fund (Core):

- Canara Robeco Bluechip Equity Fund and Mirae Asset Large Cap Fund depicted steady performance across the 3-year, 5-year, and 10-year time.
- The group average of the above category also category showed sustainable stable returns.

2. Flexi Cap Fund (Core):

- Parag Parikh Flexi Cap Fund displays outstanding performance during all time periods as compared to other funds.
- Kotak Flexi Cap Fund and UTI Flexi Cap Fund also depicted decent returns.
- The group average of the above category showed comparatively strong performance, particularly during the 5-year period.

3. Mid Cap Fund (Core):

- Edelweiss Mid Cap Fund, Kotak Emerging Equity Fund, and PGIM India Midcap Opportunities Fund exhibits strong performance through the 3-year, 5-year, and 10-year periods.
- SBI Magnum Midcap Fund depicted impressive returns too.
- The group average of the above category resulted solid performance specially during the 5-year period.

4. Small Cap Fund (Satellite):

- Nippon India Small Cap Fund and SBI Small Cap Fund display remarkable return during all selected time periods and Nippon India Small Cap Fund delivered high returns.
- The group average of the above category indicated strong performance particularly over the 3-year and 5-year period.

5. ELSS Fund (Core/Satellite):

- Kotak Tax Saver Fund and Canara Robeco Equity Tax Saver Fund depicted showed comparative return during selected time period.
- The group average of the above category found strong performance during the 3-year and 5-year period.

6. Focused Fund (Satellite):

- SBI Focused Equity Fund and Sundaram Focused Fund indicated stable returns during 3-year, 5-year, and 10-year period.
- The group average of the above category indicated comparatively consistent performance.

7. Aggressive Hybrid Fund (Core):

- Canara Robeco Equity Hybrid Fund and DSP Equity & Bond Fund showed consistent returns during the 3-year, 5-year, and 10-year time period.
- The group average of the above category resulted steady performance.

8. Short Term Fund (Core):

- Axis Short Term Fund, HDFC Short Term Debt Fund, and ICICI Prudential Short- Term Fund indicated similar returns during all time periods.
- The group average of the above category found steady performance specially during the 3-year and 5-year periods.

9. Corporate Bond Fund (Core):

- HDFC Corporate Bond Fund and Sundaram Corporate Bond Fund depicted comparatively steady returns during the 3-year, 5-year, and 10-year periods.
- The group average of the above category showed steady performance.

10. Banking and PSU Debt Fund (Core):

- Bandhan Banking & PSU Debt Fund, Kotak Banking and PSU Debt Fund, and Nippon India Banking & PSU Debt Fund indicated same returns during all time periods.
- The group average of the above category suggested steady performance.

11. Index Funds/ETFs:

- ICICI Prudential Nifty Next 50 Index Fund and UTI Nifty 50 Index Fund indicated good returns during the 3-year, 5-year, and 10-year periods.
- The group average of the above category showed comparative performance.

The above data contains risk ratios of SIPs (Systematic Investment Plans) (TABLE 2) of selected mutual fund categories in India over a duration of 3 years as under:

1. Large Cap Fund (Core):

- Canara Robeco Bluechip Equity Fund and Mirae Asset Large Cap Fund showed favourable alphas, pointing performance outperformed the benchmark.
- Both funds showed beta nearer to 1, resulting a similar level of market risk.
- Sharpe and Treynor ratios found above 1, showed positive risk-adjusted returns.
- Canara Robeco Bluechip Equity Fund depicted higher downside capture which expressed that performance was comparatively worse during market downturns.

2. Flexi Cap Fund (Core):

- Parag Parikh Flexi Cap Fund dominates with a substantially higher alpha showed higher performance.
- Kotak Flexi Cap Fund and UTI Flexi Cap Fund have positive alphas but lower in comparison to Parag Parikh Flexi Cap.
- Beta values are comparatively close to 1 for selected funds resulted market risk.
- Parag Parikh Flexi Cap Fund depicted highest Sharpe and Treynor ratios showed outstanding risk-adjusted returns.
- All the selected funds resulted relatively low downside capture showed resilience across market downturns.

3. Mid Cap Fund (Core):

- All the selected funds in this category showed positive alphas pointing performance over the benchmark.
- Edelweiss Mid Cap Fund, Kotak Emerging Equity Fund, and SBI Magnum Midcap depicted comparatively higher alphas.
- lower market risk relatively the benchmark as Beta values resulted below 1.
- All the selected funds indicted high Sharpe and Treynor ratios showed favourable risk-adjusted returns.
- Edelweiss Mid Cap Fund and PGIM India Midcap Opportunities Fund indicated the higher Sortino ratio depicted better risk-adjusted returns across downside volatility.

4. Small Cap Fund (Satellite):

- Nippon India Small Cap Fund and SBI Small Cap Fund both funds showed positive alphas and outperformed in market circumstances.
- Beta values are low pointing out lower market risk.
- Nippon India Small Cap Fund indicated significantly high Sharpe ratio showed better risk-adjusted returns.
- Both the selected funds showed comparatively low downside capture showing resilience across market downturns.

5. ELSS Fund (Core/Satellite):

- Both Canara Robeco Equity Tax Saver Fund and Kotak Tax Saver Fund depicted positive alphas showed outperformed.
- Beta values found nearer to 1 indicating market risk.
- Sharpe and Treynor ratios are more than 1 for both selected funds showed favourable risk-adjusted returns.

6. Focused Fund (Satellite):

- SBI Focused Equity Fund depicted positive alpha showed performance above the benchmark.
- Sundaram Focused Fund found negative alpha showed underperformance.
- Beta values are comparatively low for both funds.
- SBI Focused Equity Fund depicted a higher Sharpe and Treynor ratio showed better risk-adjusted returns.

7. Aggressive Hybrid Fund (Core):

- Both Canara Robeco Equity Hybrid Fund and DSP Equity & Bond Fund depicted positive alphas showed outperformance.
- Beta values found nearer to 1 showing market risk.
- Canara Robeco Equity Hybrid Funds found higher Sharpe and Treynor ratio showed better risk-adjusted returns.

8. Short Term Fund (Core):

- Axis Short Term Fund, HDFC Short Term Debt Fund, and ICICI Prudential Short- Term Fund depicted positive performance during various measures consisting of Alpha, Beta, Sharpe Ratio, and Treynor Ratio.
- The above selected funds indicated comparatively low downside capture showed resilience during market downturns.
- The group average performance for short-term funds were found also positive.

9. Corporate Bond Fund (Core):

- HDFC Corporate Bond Fund resulted average performance with comparatively lower Alpha and Sharpe Ratio.
- Sundaram Corporate Bond Fund found lower performance metrics and negative downside capture.
- The group average performance for corporate bond funds were found moderate.

10. Banking and PSU Debt Fund (Core):

- Bandhan Banking & PSU Debt Fund and Kotak Banking and PSU Debt Fund indicated positive performance with remarkable Alpha, Beta, and Sharpe Ratio.
- Nippon India Banking & PSU Debt Fund resulted higher Alpha and Sharpe Ratio.
- The group average performance for banking and PSU debt funds were found positive.

11. Index Funds/ETFs:

- ICICI Prudential Nifty Next 50 Index Fund and UTI Nifty 50 Index Fund depicted negative Alpha pointing out potential underperformance compared with their benchmarks.
- The group average performance for index funds/ETFs were found negative.

CONCLUSION:

The above study on the performance evaluation of SIPs returns of selected top 30 mutual funds in India depicted market fluctuations and risk ratios throughout selected different fund categories. Canara Robeco Bluechip Equity Fund and Mirae Asset Large Cap Fund indicated sustainable performance over multiple time periods in the Large Cap Fund category coupled with favourable alpha pointing out outperformance. Parag Parikh Flexi Cap Fund highlighted outstanding performance although Kotak Flexi Cap Fund and UTI Flexi Cap Fund also resulted moderate return in the Flexi Cap Fund category. The Mid Cap Fund category found strong performance out of selected funds Edelweiss Mid Cap Fund, Kotak Emerging Equity Fund, and PGIM India Midcap Opportunities Fund. In the Small Cap Fund category Nippon India Small Cap Fund & SBI Small Cap Fund were found outperformed. In the Aggressive Hybrid Fund category Canara Robeco Equity Hybrid Fund and DSP Equity & Bond Fund depicted sustainable returns. Collectively, the present study showed valuable insights into the performance and risk ratios of selected 11 mutual fund categories, facilitating potential investors in making well- advised choices. The study found various mutual fund categories that indicated strong performance and positive risk-adjusted returns. This result can guide as a valuable resource for investors to make advised decisions about their investment strategies and goals.

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