

## Asian Journal of Multi-Disciplinary Research

DOI: http://dx.doi.org/10.20468/ajmdr.2018.02.15

# **Research Article**

# Impact of Systematic Investment Plan Investment on Mutual Funds in India

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#### ABSTRACT

This article attempts to study the problem of mutual fund selection by investing in good performing funds among equity type of mutual funds systematic investment plan (SIP) (large cap, small, and mid-cap, and diversified equity) fund based performance in different mutual fund asset management companies. This study focuses on the hypothetical assumption in that the SIP is the best way to build up capital over a period of time for those who do not have lump sum amount to invest as the risk will be reduced into investing in long-term equity-based mutual funds SIP. Therefore, SIP is a method SIP which serves as an individual investor as a better portfolio management service provider and attracts better long-term returns when compared to other investment avenues which result in disciplined investment planning.

#### **INTRODUCTION**

Systematic investment plan (SIP) is the best ways to build up capital over a period of time for those who do not have lump sum amount to invest as the risk will be reduce into investing long-term equity-based mutual funds SIP. SIP plans will build up investors gradually drop by drop. Here are equity funds best suited for the SIP Route. SIPs are the best way to build up a good corpus. Different equity-based mutual fund growth schemes such as large cap, small and midcap, diversified equity, thematic infrastructure, ELSS, and sector funds will be suited for SIP.

Equity-based small and mid-cap funds offer the maximum scope for capital appreciation. There is a lot of scope for investors residing in India to invest in equity mutual funds; one of the most common funds is diversified equity funds.

Diversified mutual funds hold a large number of securities as it is professionally managed by fund managers to invest in a variety of sector stocks and also to give better results in volatile stock markets. Discipline is the key to successful investments. Every investment is a step toward attaining your financial objectives. Investors can discontinue the plan at any time. One can also increase/decrease the amount being invested. Due to rupee-cost averaging and the power of compounding SIPs have the potential to deliver attractive returns over long investment horizons the key to successful investments. Every investment is a step towards attaining your financial objectives. Investors can discontinue the plan at any time. One can also increase/decrease the amount being invested. Due to rupee-cost averaging and the power of compounding SIPs have the potential to deliver attractive returns over a long investment horizon.

## **Objectives**

The objectives of the study are as follows:

- 1. To evaluate and compare the long-term performances of selected equity-based mutual funds through SIP.
- 2. To identify the investment in equity-based mutual fund SIPs that can gain momentum and increase the percentage of income.
- 3. To find out what way is the risk minimized in long-term performance of equity-based mutual fund (SIP).

## **METHODOLOGY OF THE STUDY**

#### **Sample selection**

For performance evaluation of SIP plan, the data taken for past 5 years information related to NAV of various schemes from the various category of equity-based mutual fund. This study selected 10 schemes which are operating from past 5 years for the period 2011–2016 on the basis of top returns and benchmark returns. For large-cap equity mutual fund, CNX Nifty, S and P BSE100, and S and P BSE200 are used as a benchmark. For small and mid-cap equity mutual fund, CNX midcap, S and P BSE small-cap and for the diversified equity mutual fund, CNX 500, and CNX service sector are used as a benchmark.

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Keywords:

Investment, Mutual funds, Systematic investment plan

Received: 25<sup>th</sup> January 2018 Accepted: 20<sup>th</sup> February 2018 Published: 30<sup>th</sup> May 2018

## Period

The present research study covers the duration of past 5 years from April 2011 to March 2016.

## **Sources of Data**

The required information collected through the factsheet of different mutual fund houses using various websites and also from the various publications of the government of India, RBI, SEBI, and AMFI and also from relevant reports, periodicals, and newspapers.

## **Tools used for Analysis**

The volatility of returns in mutual funds can be statistically calculated with the help of benchmark of all kinds of funds. The following tools are available for performance evaluation and comparative analysis of different equity-based mutual fund schemes.

#### Standard deviation

The standard deviation is used to measure the volatility of periodic returns of a scheme to its own deviation measure. Mutual funds with a low standard deviation are considered as less volatile than one with high standard deviation.

#### Beta

Measures the risk of securities invested in the funds and if the diversified stock index has beta 1. Schemes, whose beta is more than 1, are seen as more volatile than the market or <1is considered as less volatile than the market.

#### Sharpe ratio

An investor earns a risk-free return. T-Bill index is a good measure of this risk-free return. Sharpe ratio uses standard deviation as a measure of risk. Hence, higher the Sharpe ratio means the scheme is suggested for investment.

#### Alpha

Alpha measures the expected return compared with the level of risk. Positive alpha indicates that the fund manager has given higher returns more than the expected returns at the level of risk taken.

#### Benchmark

Benchmark considered for comparison with schemes return. In this study used a different benchmark for different category benchmark use for large cap.

#### **Analysis of Equity-Based Mutual Funds**

As per Table 1, it is clear that the annual compounded returns value range from 17.17% to 14.80%. The highest returns of the ICICI Pru focused blue-chip equity growth is 17.7% and followed by ICICI Pru focused (G) and UTI Equity fund (G), respectively, returns are 16.60% and 15.90%. The results clear that the schemes are outperformed which is more than benchmark and category returns. The standard deviation of all the schemes ranges from is less than the benchmark index and category standard deviation it means all the schemes are less volatile.

Beta is the coefficient of mutual funds volatility. All the schemes of beta range from 1.03 to 0.84 which is <1 except Birla sun life top 100; however, all schemes are less risky. Schemes Sharpe ratio ranges from 0.98 to 0.71 which is higher than the category and benchmark, so all the schemes have a reward that the risk standard of its peers. All schemes alpha ranges from 6.67 to 2.64 are positive and outperformed well. As per the comparison of all the above schemes, it is clear that all schemes returns are up to mark. An investor can invest their money into higher schemes such as ICICI Pru focused bluechip equity (G) followed by ICICI Pru focused (G) and UTI equity fund (G) of large-cap equity-based mutual fund where risk is low.

As per Table 2, it is clear that the annual compounded returns value range from 26.20% to 22.60%. Religare invesco mid- and small-cap (G), respectively, returns are 25.60% and 25.00%. The analysis results clear that the schemes are outperformed which is more than benchmark and category returns. The standard deviation of all the schemes ranges is less than the benchmark index and category standard deviation it means all the schemes are less volatile. Beta is the coefficient of mutual funds volatility. All the schemes of beta range from 1.09 to 0.8 which is more than one; however, all schemes are slightly high risky.

Schemes Sharpe ratio ranges from 1.39 to 1.05 which is higher than the category and benchmark, so all the schemes have a reward that the risk standard of its peers. All schemes of alpha range from 17.12 to 10.14 are positive and outperformed well. As per the comparison of all the above schemes, it is clear that all schemes returns are up to mark. An investor can invest their money into higher returns schemes such as religare investors mid- and small-cap (G) small- and mid-cap equitybased mutual fund where risk is slightly high.

Based on Table 3, it is clear that the annual compounded returns value range from 22.70% to 16.70%. The highest returns of the UTI MNC fund growth are 22.70% and followed by ICICI Pru export and other services (G) and reliance equity opportunity (G), respectively, returns are 21.90% and 21.70%. Table clear that the schemes are outperformed which is more than benchmark and category returns. The standard deviation of all the schemes ranges from is less than the benchmark index and category standard deviation it means all the schemes are less volatile. Beta is the coefficient of mutual funds volatility. All the schemes of beta range from 1.04 to 0.64% which is <1except Franklin high growth cos. (G); however, all schemes are less risky. Schemes Sharpe ratio ranges from 1.45 to 0.87 which is higher than the category and benchmark, so all the schemes have a reward that the risk standard of its peers. All schemes of alpha range from 18.81 to 5.23 are positive and outperformed well. As per the comparison of all the above schemes, it is clear that all schemes returns are up to mark. Investor can invest their money into higher schemes such as UTI MNC fund (G), ICICI Pru Export and other services (G), and Reliance Equity opportunity regular (G) of Diversified equity-based mutual fund where risk is low.

From the analysis of Table 4, it is clear that if an investor has invested amount of Rs. 1000 as SIP for 5 years without any interrupt then in the selected equity funds the yield of returns earned is comparatively more than 20% in all funds,

Table 1: Large-cap equity mutual fund schemes based on the annual compounded returns

| Large cap schemes                      | Return (% pa) | Mean±SD           | Sharpe | Beta | Alpha |
|--|---------------|-------------------|--------|------|-------|
| ICICI pru focused blue-chip equity-IO  | 17.77         | $20.95 \pm 15.28$ | 0.93   | 0.9  | 5.58  |
| ICICI Pru focused blue chip equity (G) | 16.60         | $20.09 \pm 15.26$ | 0.87   | 0.9  | 4.73  |
| UTI equity fund (G)                    | 15.90         | $21.3 \pm 15.7$   | 0.92   | 0.92 | 5.78  |
| Birla sun life top 100 (G)             | 15.80         | $22.5 \pm 17.51$  | 0.9    | 1.03 | 5.94  |
| UTI opportunities fund (G)             | 15.70         | $19.49 \pm 14.82$ | 0.86   | 0.85 | 4.61  |
| BNP paribas equity fund (G)            | 15.50         | 21.47±14.97       | 0.98   | 0.84 | 6.67  |
| Can robeco equity divers (G)           | 15.40         | $18.64 \pm 15.6$  | 0.76   | 0.9  | 3.27  |
| L and T equity fund (G)                | 15.10         | 18.69±16.64       | 0.71   | 0.97 | 2.64  |
| ICICI Pru Top 100 fund (G)             | 15.10         | 21.79±16.54       | 0.91   | 0.95 | 5.95  |
| Birla SL frontline equity (G)          | 14.80         | $21.69 \pm 16.72$ | 0.89   | 0.99 | 5.49  |

Source: www.moneycontrol.com. SD: Standard deviation

Table 2: Small and mid-cap equity mutual fund schemes based on the annual compounded returns

| Small and mid-cap schemes          | Returns (% pa) | Mean±SD           | Sharpe | Beta | Alpha |
|------------------------------------|----------------|-------------------|--------|------|-------|
| HDFC mid-cap opportunities (G)     | 23.60          | $27.29 \pm 18.56$ | 1.1    | 0.98 | 11.15 |
| Franklin (I) smaller cos (G)       | 23.20          | $33.65 \pm 19.27$ | 1.39   | 1.03 | 17.12 |
| BNP paribas mid-cap fund (G)       | 23.10          | $28.9 \pm 18.7$   | 1.18   | 1.01 | 12.55 |
| ICICI Pru value discovery fund (G) | 23.10          | 29.93±19.11       | 1.21   | 1.00 | 13.62 |
| Birla sun life MNC fund (G)        | 22.80          | $25.5 \pm 17.54$  | 1.07   | 0.85 | 10.62 |
| Religare invesco mid-cap (G)       | 22.60          | $26.72 \pm 19.82$ | 1.01   | 1.03 | 10.14 |
| UTI mid-cap (G)                    | 22.60          | $30.28 \pm 20.91$ | 1.12   | 1.05 | 13.48 |

Source: www.moneycontrol.com. SD: Standard deviation

| Table 3: Diversified | l equity mutua | l fund schemes | based on the | e annual com | pounded returns |
|----------------------|----------------|----------------|--------------|--------------|-----------------|
|----------------------|----------------|----------------|--------------|--------------|-----------------|

| Diversified equity schemes                | Returns (% pa) | Mean±SD           | Sharpe | Beta | Alpha |
|---|----------------|-------------------|--------|------|-------|
| UTI MNC fund (G)                          | 22.70          | 24.32±15.81       | 1.11   | 0.72 | 10.17 |
| ICICI Pru exp and other services - RP (G) | 21.90          | 31.57±17.07       | 1.45   | 0.63 | 18.81 |
| Reliance equity oppor - RP (G)            | 21.70          | $24.7 \pm 18.18$  | 0.99   | 0.98 | 8.6   |
| Birla SL India GENNEXT (G)                | 19.70          | $22.63 \pm 16.26$ | 0.97   | 0.87 | 7.6   |
| Franklin high growth cos (G)              | 18.80          | $28.1 \pm 18.27$  | 1.17   | 1.04 | 11.46 |
| Mirae (I) opportunities - RP (G)          | 18.00          | $23.05 \pm 16.34$ | 1.00   | 0.95 | 7.21  |
| ICICI Pru dynamic plan - Inst.            | 17.70          | 21.17±15.44       | 0.93   | 0.86 | 6.24  |
| BNP paribas dividend yield (G)            | 17.00          | $20.8 \pm 15.23$  | 0.92   | 0.83 | 6.11  |
| Franklin India prima plus (G)             | 16.70          | 20.97±15.64       | 0.91   | 0.9  | 5.61  |
| Quantum Long-Term Equity (G)              | 16.70          | $20.88 \pm 16.28$ | 0.87   | 0.93 | 5.23  |

Source: www.moneycontrol.com. SD: Standard deviation

and the highest is 40.49% in UTI transport and logistic fund which yielded better results than other investment avenues and reduces risk of direct investment in stock markets for an invest.

## **Findings of the Study**

Long-term returns of large-cap equity growth fund schemes are comparatively less than small- and mid-cap, Tax Saving fund schemes, and equity sector fund schemes. However, this schemes risk is low as compared to small- and mid-cap, equity sector fund schemes. Investors those who do not want to take the big risk they can invest their money into large-cap equity schemes such as ICICI Pru focused blue-chip equity (G) followed by ICICI Pru focused (G) and UTI Equity Fund (G).

This research shows that long-term return of mid-cap and small-cap funds, some schemes are giving high returns as compared to other equity-based mutual fund which is generally in probe and neglect investors.

Present researchers found that the high-return funds which are "striking it rich" is the way to invest in equity sectors

| Selected equity-based mutual fund schemes during research | Total investment     | Return (% pa) | SIP returns value (Rs) |  |
|---|----------------------|---------------|------------------------|--|
| Period  | (1000 * 12 * 5) (Rs) |               |                        |  |
| ICICI Pru. focused blue-chip equity (G)                   | 60,000               | 20.62         | 1,01,063               |  |
| ICICI Pru. focused (G)                                    | 60,000               | 21.58         | 1,03,473               |  |
| UTI equity fund (G)                                       | 60,000               | 21.79         | 1,04,473               |  |
| DSP-BR micro-cap fund (G)                                 | 60,000               | 32.56         | 1,43,926               |  |
| Can robeco emerging equity (G)                            | 60,000               | 32.4          | 1,34,461               |  |
| Religare invesco mid- and small-cap (G)                   | 60,000               | 29.88         | 1,26,598               |  |
| HDCFC mid-cap opportunity (G)                             | 60,000               | 29.64         | 1,25,822               |  |
| ICICI Pru. export and other service (G)                   | 60,000               | 30.98         | 1,30,161               |  |
| Franklin Build Infra. Fund (G)                            | 60,000               | 29.95         | 1,26,883               |  |
| ICICI Pru. Tax plan (G)                                   | 60,000               | 23.523        | 1,08,523               |  |
| Religare invesco tax plan (G)                             | 60,000               | 23.14         | 1,67,635.82            |  |
| UTI transport and logistics fund                          | 60,000               | 40.49         | 1,62,950.91            |  |
| SBI Pharma Fund (G)                                       | 60,000               | 33.22         | 1,37,271.13            |  |

Source: www.moneycontrol.com. SD: Standard deviation, SIP: Systematic investment plan

fund schemes and small-cap and mid-cap funds. The investors those who can afford high risk investment may have the result of equity sector fund and small- and mid-cap fund which have a high potential return on mutual funds.

The investor who cannot offered lump sum amount of investment they can start their long-term investment in equity-based mutual fund schemes through SIP and get a good amount of returns.

#### **RECOMMENDATIONS AND CONCLUSION**

From this research study, it is clear that the investment planning process helps an investor by setting long-term investment goals which result in achieving the specified financial planning objective of investors. Investors have options to invest by the way of SIP or to invest by lump sum amount. Small investors can invest through SIP by the way. SIPs have proved to be an ideal mode of investment for retail investors who do not have the resources to pursue the active investment.

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**Cite this article:** Nagajyothi S, Srinivas G. Impact of Systematic Investment Plan Investment on Mutual Funds in India. Asian J Mult-Disciplinary Res. 2018;4(2):66-69.

**Source of Support:** Nil, **Conflict of Interest:** None declared.