

Performance Evaluation of Mutual Fund Schemes: A Study of Selected Topper Schemes

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Abstract: Mutual Fund is one of the most effective instrument for the small & medium investors for investment and offers opportunity to them to participate in capital market with low level of risk. It also provides the facility of diversification i.e. investors can invest across different types of schemes. Indian Mutual Fund has achieved a lot of popularity since last two decades. For a long time UTI enjoyed the monopoly in mutual fund industry. But with the passage of time many new players came in the market and industry faces a lot of competition. Now a days this industry has become the major player of the financial system. Therefore it becomes important to investigate the mutual fund performance at continuous basis. The aim of this paper is to evaluate the performance of mutual fund schemes ranked one by CRISIL. To analysis the performance of selected funds' schemes, mean returns and their standard deviation were considered and then basic measures in this regard- Sharpe's Ratio, Jensen's Ratio and Treynor's Ratio were ascertained and interpreted accordingly. Finally, Tata equity P/E fund is found to be good performer among the selected schemes during April 2016 to March 2017.

Keywords: Mutual Fund, Net Asset Value, Performance Measures, Return, Beta etc.

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I. Introduction

Economic growth can be achieved through the development of a capital market which can meet the financial requirements of the country. One of vital components of financial system is financial institutions which can serve the dual purpose- generating savings from the public and providing funds for investment purpose. The mutual fund industry is one such financial institution which raises funds through the sale of the small units to public and provides funds for investment among various sectors. Despite the global economic slowdown of 2010-13, a remarkable increase is observed in mutual fund investments in India. According to facts of PwC analysis (2016), this industry has reported highest growth during last seven years while grew with eighteen percent CAGR during the period of last ten year. As per India Attractive Survey Report, EY's 2015, our country is considered most attractive investment destination at global front as per one third of respondents under survey while remaining considers India as in top three investment centres. According to ICRA, due to trend of lowering interest rates by banks after demonetization move, positive impact can be seen in the debt oriented funds. Further, it is also expected by experts of mutual funds that assets under management of mutual funds are likely to grow at a fast pace after demonetization. As awareness increases, mutual funds could become the first choices for investment. Moreover, the demonetization has brought both the challenges and tremendous opportunities for the growth of mutual fund industry in India while the effect of GST is yet to be observed. Though mutual funds are good investment avenues for small saver who has low risk bearing capacity, the selection of appropriate mutual fund and scheme is a tedious task specially for person having non-financial background. Hence, the practitioners and academicians relating to mutual fund are supposed to fill and serve that requirement for healthy progress of the mutual fund industry.

Figure 1: Quarterly Average Assets Under Management of Mutual Fund



Source: AMFI, Compiled by author

II. Literature Review

Roy, S. & Ghosh, S.K. (2012) evaluated the performance of the open ended gilt mutual fund schemes for the period of 2008-2009. They examined the risk adjusted performance, market timing performance, selectivity performance and found that the selected mutual fund schemes were not performed well. Further, performance of the Indian private sector mutual fund companies was better than the public sector. Overall, it was concluded that the performance of selected open ended gilt schemes was not performed satisfactory during the recession period.

Kesavraj, G. (2013) tried to know the investors perception and awareness level towards mutual fund. The author took a sample of two hundred & four respondents to know the their investing power & their interest in financial products. It was found that eighty eight percent respondents agreed that mutual fund could provide a high return & less risky. Seventy three percent respondents were aware about different tax benefits by investing in mutual fund and it was also found that eighty percent respondents were satisfied by investing in mutual fund.

Adhav & Chauhan (2015) assessed & compared the performance of mutual fund schemes of selected Indian companies by standard deviation & Sharpe's Ratio. They found that all selected equity mutual funds performed better than their benchmark indices. It was revealed from the study that risk for debt fund was much lower than that of the equity funds. The authors concluded that equity oriented hybrid funds performed better than the other type of hybrid funds and arbitrage fund & conservative debt hybrid funds showed worst performance.

Wadhwa, B.; Kaur, D. & Vashist, A. (2015) studied the factors responsible for the selection of mutual fund as an investment option and also analyzed the impact of various demographic variables on investors attitude towards mutual fund by taking three hundred respondents from Delhi region. One third respondents had given positive response and half of them had neutral response towards mutual fund. The authors found significant association between attitude and demographic features of respondents such as: age, gender, income & occupation. It was also found that no significant association between education & attitude towards mutual fund.

Ayaluru, M.P. (2016) worked to evaluate the performance of ten open ended equity schemes of Reliance Mutual Fund. The study was related to period from Aug 2009 to July 2014. The study highlighted that all the selected funds performed above the selected benchmark return. Further, Jensen measure revealed that all the selected schemes showed positive alpha. According to beta values out of ten schemes, only four schemes showed high risk. In this study Reliance Pharma Fund had highest value and Reliance Diversified Power sector had lowest value of Sharpe & Treynor ratio.

Ratnarajun, P.& Madhav, V.V. (2016) analysed the risk return relationship and market volatility of the selected mutual funds and examined the performance of selected schemes from march 2012 to march 2016 by using Sharpe and Treynor models. The authors investigated the performance of thirty open ended diversified equity schemes. Performance of Reliance Regular Saving Fund Equity, SBI Contra Fund, HDFC Equity Fund was not found as good. It was also found that the Sharpe's ratio was positive for all the selected schemes.

These reviews are few in numbers and nowadays also mutual fund industry is one of popular research area for researchers in finance. Here, the researcher has focused only on topper schemes so that results of these can be produced before existing & potential investors of mutual funds as it is psychological view that investors focus on top schemes.

Objectives of the Study

The present study aims to review & evaluate the performance of the selected mutual fund schemes ranked by CRISIL as topper schemes.

III. Methodology

To examine the mutual fund schemes performance, ten schemes were selected which were ranked first by CRISIL during March 2017. Monthly average NAVs (Net Asset Value) of the selected schemes have been used in this study for the period from April 2016 to March 2017. In this study the monthly yield on 91 days Treasury bill is used as risk free rate. Following Schemes & their respective benchmark were selected for the study:

Fund Name	Scheme Name	Benchmark
1. Birla Sun Life Equity Fund	i) Growth Direct Plan ii) Growth Regular Plan	S&P BSE 200
2. Birla Sun Life India GenNext Fund	i) Growth Direct Plan ii) Growth Option Plan	CNX NIFTY
3. Principle Emerging Bluechip Fund	i) Growth Direct Plan ii) Growth Option Plan	Nifty Freefloat Midcap 100
4. Sundaram Rural India Fund	i) Growth Direct Plan ii) Growth Option Plan	S&P BSE 500
5. Tata Equity P/E Fund	i) Growth Direct Plan ii) Growth Regular Plan	S&P BSE

Sources of Data

The data for this study was mainly collected from secondary sources like journals and various websites such as www.amfiindia.com, www.mutualfundsindia.com, www.nseindia.com, www.sebi.gov.in and www.moneycontrol.com etc.

Statistical Tools

For the basic analysis of schemes regarding their returns& risks, mean return, standard deviation & beta (which report nature of fluctuations in unsystematic & systematic manner) were calculated & used to extract their performance. Further, for assessing their performance in more reliable manner Sharpe’s, Treynor’s & Jensen’s measures were also applied as these techniques are considered and recommended for analyzing.

IV. Data Analysis & Results

Table 1: Mean Return, Standard Deviation & Beta of Selected Mutual Fund Schemes:

Scheme Name	Mean Return	Standard Deviation	Beta (β)
1. Birla Sun Life Equity Fund			
Growth Direct Plan	2.49	3.71	0.95
Growth Regular Plan	2.41	3.71	0.95
2. Birla Sun Life India GenNext Fund			
Growth Direct Plan	2.09	4.26	1.20
Growth Option Plan	2.00	4.26	1.20
3. Principle Emerging Bluechip Fund			
Growth Direct Plan	2.53	3.96	0.87
Growth Option Plan	2.44	3.96	0.87
4. Sundaram Rural India Fund			
Growth Direct Plan	2.70	4.03	1.01
Growth Option Plan	2.63	4.03	1.01
5. Tata Equity P/E Fund			
Growth Direct Plan	2.87	3.21	0.87
Growth Regular Plan	2.81	3.23	0.87

Source: AMFI (Calculated by author by using Daily NAV)

Figure 2: Mean Return, Standard Deviation & Beta of Selected Mutual Fund Schemes

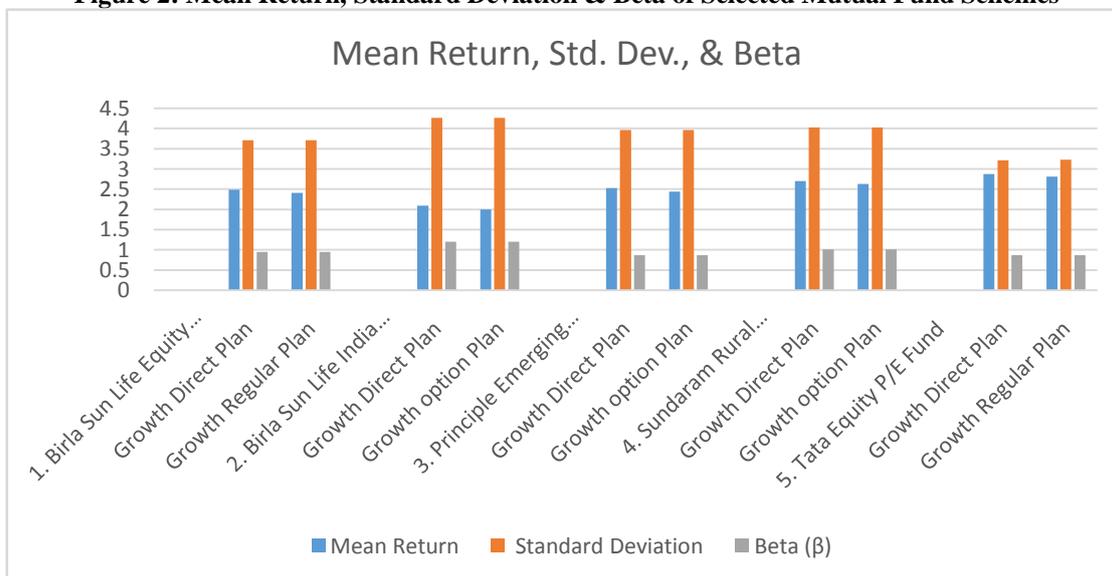


Table 1 shows competency of these schemes to make out a strong case for investment. In this comparative analysis it is observed that Tata Equity P/E fund indicates high return among the selected funds and in comparison to other funds risk & the market risk, it also has low risk. Birla Sun Life P/E Fund has low mean return with high risk. In the context of Beta, it is observed from the table that six out of ten schemes have beta value less than one which indicates they belong to low risk category. Principle Emerging Bluechip Fund and Tata Equity P/E fund have low beta value than other selected funds but Tata Equity also yielded higher mean return than others selected funds. Sundaram Rural India Fund and Birla Sun Life India GenNext Fund schemes have their beta more than one which reveals that they belonged to high risk category comparatively. Overall, Tata

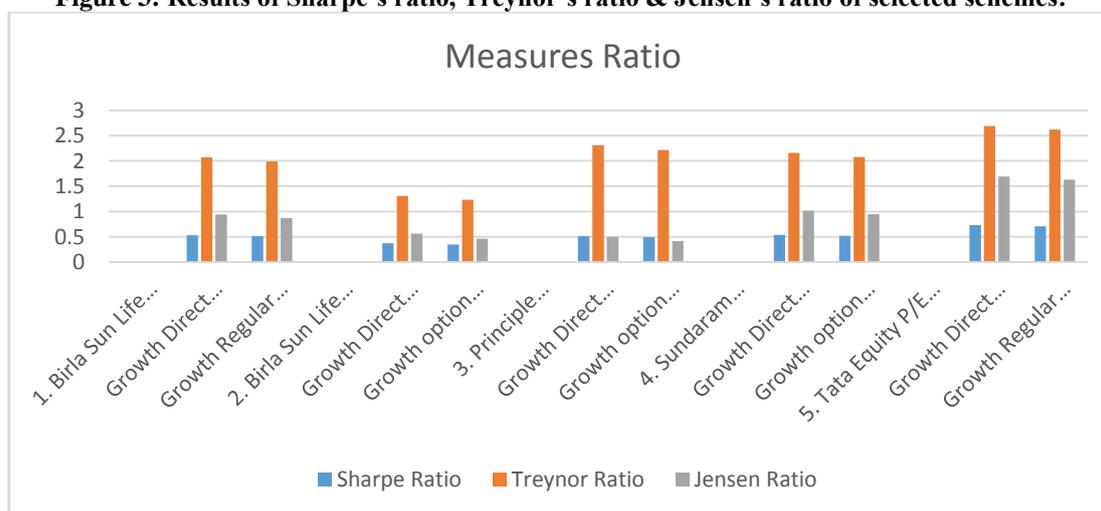
Equity P/E fund performance has been best in all terms and Birla Sun Life India GenNext fund performance is low with high risk in comparative manner.

Table 2 Results of Sharpe’s ratio, Treynor’s ratio & Jensen’s ratio of selected schemes

Scheme Name	Sharpe’s Ratio	Treynor’s Ratio	Jensen’s Ratio
1. Birla Sun Life Equity Fund			
Growth Direct Plan	0.53	2.07	0.94
Growth Regular Plan	0.51	1.99	0.87
2. Birla Sun Life India GenNext Fund			
Growth Direct Plan	0.37	1.31	0.56
Growth Option Plan	0.35	1.23	0.46
3. Principle Emerging Bluechip Fund			
Growth Direct Plan	0.51	2.31	0.50
Growth Option Plan	0.49	2.22	0.42
4. Sundaram Rural India Fund			
Growth Direct Plan	0.54	2.16	1.02
Growth Option Plan	0.52	2.08	0.95
5. Tata Equity P/E Fund			
Growth Direct Plan	0.73	2.69	1.69
Growth Regular Plan	0.71	2.62	1.63

Source: Compiled by author from NAVs of the selected schemes

Figure 3: Results of Sharpe’s ratio, Treynor’s ratio & Jensen’s ratio of selected schemes:

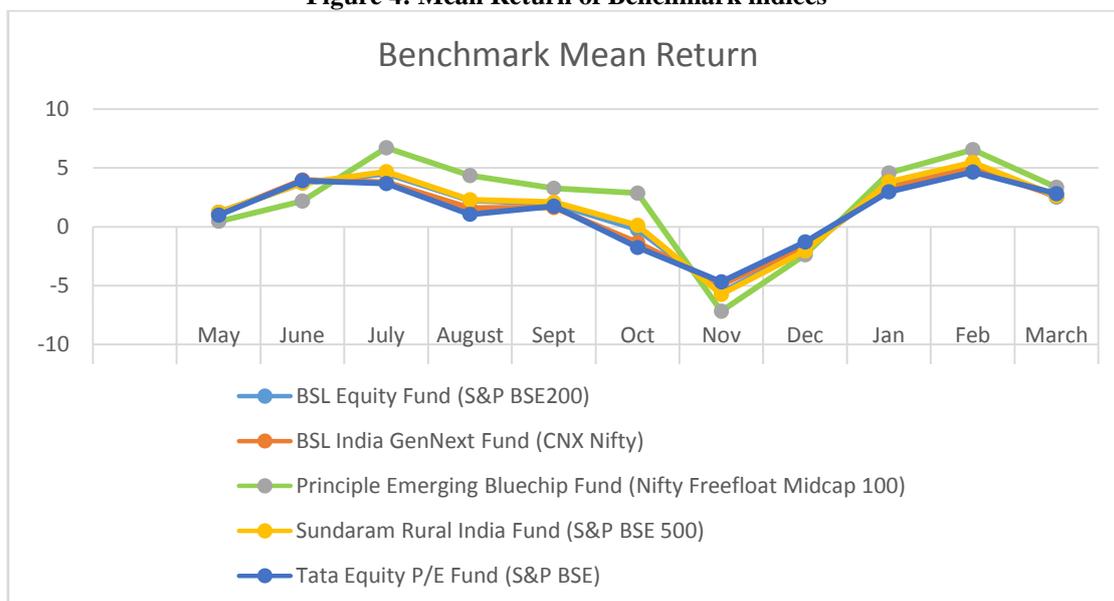


Top performing fund as per Sharpe ratio is Tata Equity P/E Fund followed by Sundaram Rural India Fund, Birla Sun Life Equity Fund & Principle Emerging Bluechip Fund respectively. Table 2 and figure 3 reveal that among the selected funds, Birla Sun Life India GenNext Fund has reported low positive Sharpe ratio than others. In the study, the sharpe ratio is positive for all schemes which shows that funds are providing returns greater than risk free rate.

As per Treynor ratio, it is observed that Tata Equity P/E Fund is again at top followed by Principle Emerging Bluechip Fuud & Sundaram Rural India Fund. Birla Sun Life India GenNext Fund has again low Treynor ratio than other selected funds.

In Jensen measure reveal that all schemes shows positive value which indicate superior performance of the schemes and indicate better result on part of their fund manager to forecast security prices on time for taking better investment decision. Among the all selected funds higher value of Jensen ratio is found with Tata Equity P/E Fund followed by Sundaram Rural India Fund & Birla Sun Life Equity Fund. This time, Principle Emerging Bluechip fund has got lowest value of Jensen’s ratio.

Figure 4: Mean Return of Benchmark indices



From the figure 4, it is observed that average mean returns of respective schemes' benchmarks show positive return in pre-demonetisation period. During the demonetization period i.e. November 2016 and December 2016, it shows negative mean return of all selected schemes' benchmarks. After that period all funds has shown positive value of mean return. Benchmark of Principle Emerging Bluechip Fund i.e. Nifty Freefloat Midcap 100, perform higher positive mean return than other selected funds' benchmark during the pre demonitisation and post demonetisation period. But during the demonetisation period, Principle Emerging Bluechip Funds' benchmark performed higher negative mean return. Sundaram Rural India Fund, Birla Sun Life GenNext Fund & Tata Equity P/E Fund benchmark is performed almost same.

Figure 5: Mean Returns of Growth Direct Plan Schemes

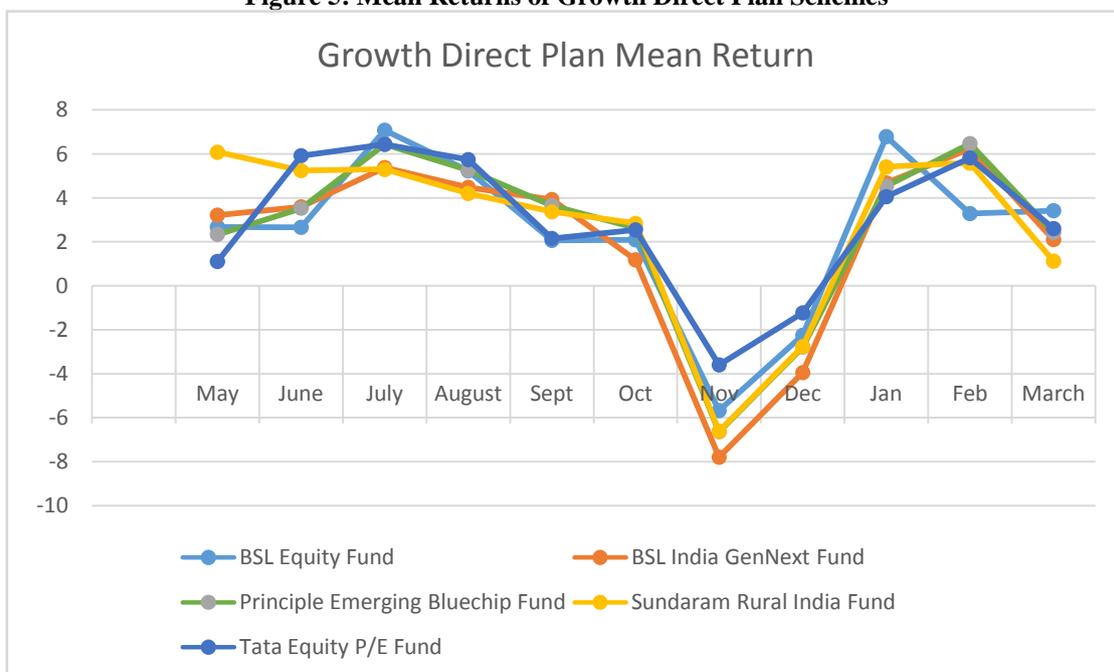


Figure 5 demonstrates the comparative mean returns of Growth Direct Plan schemes of selected mutual funds. The selected mutual funds show positive mean return before demonetisation. In the month of November & December, all these mutual funds indicate negative mean return which may due to demonetization decision. After that period all funds have yielded positive mean return. Tata Equity P/E fund provided higher mean return than the

other selected funds except for the month of May 2016, September 2016 & February 2017. The remaining funds show almost same mean return during the study period.

Figure 6: Mean Returns of Growth Option/Regular Plan Schemes

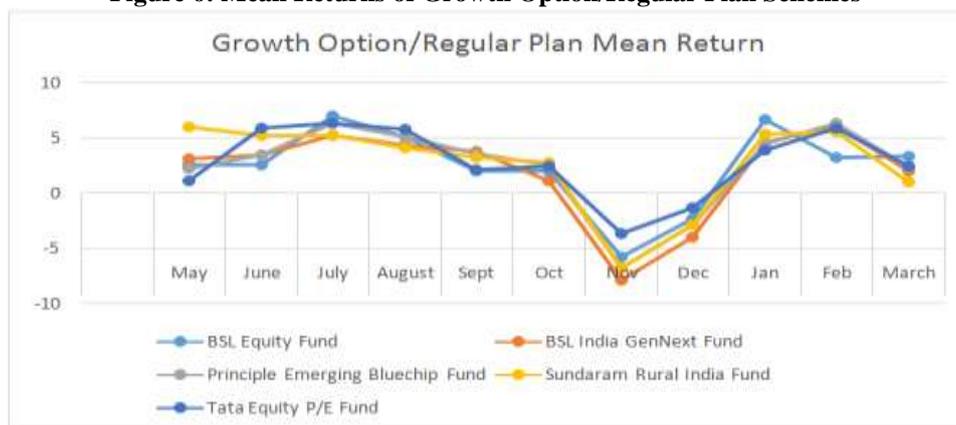


Figure 6 describes the comparative pictures about mean return on Growth Option/Regular Plan scheme of selected mutual funds. At the time of demonetisation i.e. in the month of November & December, all the selected mutual funds provided negative mean return. During the whole study period, Tata Equity P/E Fund has shown better performance than others selected mutual funds even in demonetisation period. Although, Birla Sun Life GenNext Fund has the least mean return during the demonetisation period yet, it has reported positive growth in subsequent months & got similar mean return as the other selected mutual funds.

V. Conclusion

In India, mutual funds have been getting popularity as investment opportunity. Unlike stocks, it is considered safe and reliable one and continuously increasing its clientele i.e. unitholders. All the selected funds outperformed the market & indicated superior risk adjusted performance. In overall study, it reveals that Tata Equity P/E Fund shows better performance than other selected funds in terms of mean return and risk analysis. Moreover, during the month of November 2016 which is the period of demonetization move, all schemes have negative return irrespective of type of schemes. In case of Growth Direct plans returns of January & February 2017 were more than that of March 2017 and the same has been observed regarding growth option/ regular plan. Further to awake the people of our country about the framework of mutual funds where there is enough quantum of financial illiterate people, more investigations of this kind especially by academic institutions through research students are the need of time.

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