EPRA TRUST Publishing

Research Paper

EPRA International Journal of Economic and Business Review -Peer Reviewed Journal
Volume - 8, Issue -2, February 2020 |e-ISSN : 2347 - 9671| p- ISSN : 2349 - 0187
SJIF Impact Factor(2019) : 8.045||ISI Value:1.433 |Journal DOI URL :https://doi.org/10.36713/epra2012

PERFORMANCE EVALUATION OF SELECT EQUITY ORIENTED MUTUAL FUNDS SCHEMES IN INDIA

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ABSTRACT

DOI URL: https://doi.org/10.36713/epra3058

The performance evaluation of mutual fund schemes is one of the most popular areas of interest not only for the mutual fund investors but also for the researchers of developed as well as developing countries of the world. A large numbers of mutual fund schemes exist in the market and it is really difficult for the researchers to analyse the performance of mutual fund schemes over a long period of time. Further, mutual fund schemes offered by different AMCs are of different types not only in terms of their features but also in terms of their operational nomenclature. The present study makes an attempt to analyse the performance of ten equity oriented mutual fund schemes with growth options over a period of ten years from April 2005 to March 2015. In order to evaluate the performance of mutual fund schemes, the study examines the return, risk and risk-adjusted returns using Sharpe, Treynor, and Jensen measures. Out of ten schemes selected for the study, eight schemes have performed better than the market during the study period and so far as risk is concerned out of ten schemes selected two schemes have been considered more risky as compared to benchmark Index. Sharpe, Treynor and Jensen ratio of all the select schemes are positive during the study period which implies good performance of the schemes during the study period.

KEY WORDS: *Performance, Equity, Return, Risk, Sharpe, Treynor, Jensen*

INTRODUCTION

Indian financial sector has undergone revolutionary changes after the globalization of world economy and has become broad based with size and resources so as to meet diverse needs of the economy. In fact, the increase of the banking system is interesting in promoting financial intermediation in the economy as well as the notable growth of financial sectors. With that growing of the economy and emergence of capital market in India, the size of investors has also increased rapidly. There are a large number of medium as well as small investors, who have the ability to save and make an investment in corporate sector. However, due to lack of professional expertise and knowledge about capital market these investors hesitate to invest their hard earned money in capital markets.

In this situation the medium as well as small investors may rely on mutual funds Industry as this is managed by professional experts who are able to minimize the risk of investment and help the investor to earn profit. Mutual Fund institution / instruments are new developments in line with this mechanism. A mutual fund is a special type of investment institution which acts as investment agent. A mutual fund is a trust that pools the savings of a number of investors who share a familiar monetary goal. The money consequently composed is invested by the fund manager in various types of securities keeping in mind the objective of the scheme. These investment options could range from equity to debt to money market instruments. It collects or pools the saving of the community and invests large funds in a fairly large and well diversified portfolio of sound investments. It employs professionally qualified and well experienced investment consultants and fund managers to take the pooled money and invest it in a variety of Bluechip companies which are selected from a wide range of industries with the objective of maximizing returns on investments. Institutions that collectively manage the funds obtained from different investors have commonly come to be known as mutual funds. These form of an important part of the capital market providing the benefits of diversified portfolios and expert fund management to a large number of persons, particularly small investors (Singh, 2005).

REVIEW OF LITERATURE

Jayadev (1996) conducted a study to measuring the Risk and Return of growth oriented mutual fund schemes by using various statistical tools for the period of June 1992 to March 1994. It was found from the study that Mastergain has performed better as per Jenson and Treynor measures and on the other hand as per Sharpe ratio the performance was not satisfactory. The study also found that the performance of Magnum Express was poor on the basis of all these three measures.

Jain (2012) conducted a study with the objectives to measuring the performance of equity based mutual funds of public and private sector in India by using CAPM for the period of 1997 to 2012.From the study it was found that the private sector mutual fund schemes has been less risky and more rewarding as compared to the public sector ones.

Prajapati and Patel (2012) conducted a study to measuring the performance of equity diversified mutual fund schemes of selected companies for the period of January 2007 to December 2011.From the study it was found that all selected mutual fund companies has positive return during 2007 to 2011. ICICI prudential and UTI Mutual fund has lower level of risk compare to HDFC and Reliance mutual fund. Beta is less than one to all selected mutual fund companies. Sharpe's value of HDFC Mutual fund is higher than the other and HDFC and Reliance mutual fund offers better return as per Treynor's Index.

Bhal and Rani (2012) conducted a study with the objectives of measuring the performance of mutual funds on the basis of risk, return by examining the performance these schemes with the using of various techniques like Jensen, Sharpe and Treynor measure. The study found that 48.27% schemes had outperformed as compared to benchmark return and out of 29 schemes, beta value of only 5 schemes was greater than From the Treynor ratio it was found that 19 out 29 schemes had outperformed as compared to benchmark whereas Sharpe ratio was positive for all the schemes. Jensen Alpha ratios for 65.52% schemes were positive which indicated the superior performance of these schemes.

Annapoorna and Gupta (2013) conducted a study with the objective to measuring the performance of mutual fund schemes ranked one by CRISILF by comparing with SBI domestic term deposits for the period of 6 years. The study found that the mean return on equity and debt mutual fund schemes exceeds the return of SBI domestic term deposits where as the money market mutual fund schemes have consistently provided positive returns.

Zaheeruddin, et al., (2013) conducted a study with the objectives to measuring the financial performance of the mutual funds of select AMC's by comparing with S&P CNX Nifty Index for the period July'09 to April'12. The study found that ICICI equity fund indicates high returns (R) among the selected funds and Birla sun life mutual fund has higher risk and ICICI has low risk. And ICICI mutual fund has top ranked as per the performance ratios.

Poornima and Sudhamathi (2013) conducted a study to measuring the performance of growth oriented equity diversified mutual fund schemes for the period of April 2006 to March 2011. The post office time deposit rate of 1 year i.e. was 6.25% per annum during this period and it was taken as a risk free rate. The study found that out of 102 growth oriented equity diversified schemes only 5 schemes has performed below the minimum acceptable return, whereas 97 funds were performed above the minimum acceptable return level.

Naik and Senapathy (2013) conducted a study to measure the performance of selected mutual funds and evaluate their performance by using Beta, Alpha, Standard deviation, Sharpe ratio, expense ratio and R squared. The study was conducted for the period of one year and was based on secondary data. The study found that highest standard deviation was ICICI prudential and lowest standard deviation fund was Franklin India blue chip, highest Sharpe ratio was for the ICICI prudential and lowest was for the DSPBR top 100. The study also found that the Sharpe ratio of all the funds was outperformed as compare with the market.

In the above literature most of the studies have made an attempt to analyse the mutual fund performance by using tools like Sharpe, Treynor and Jenson models. But very few studies have made an attempt to analyse the performance on equity oriented mutual fund schemes with growth option. The present study makes an attempt to analyse select equity oriented mutual fund schemes with growth option by using Return, Risk, Beta, Sharpe, Treynor as well as Jenson models.

OBJECTIVES OF THE STUDY

1. To evaluate the performance of select equity oriented mutual fund schemes.
2. To compare the performance of select equity oriented mutual fund schemes with the benchmark index.

RESEARCH QUESTIONS

The study makes an attempt to address the following research questions:

1. What is the relative performance of select growth option equity oriented mutual fund schemes during the study period?
2. To what extent the performance of select growth option equity oriented mutual schemes differ from benchmark index?

DATA SOURCES AND METHODOLOGY

The present study is based on secondary data for the period of ten years i.e. from April, 2005 to March, 2015. For evaluating the performance of sample schemes the daily closing NAV value has been used for the study period. The necessary secondary data has been collected from various sources like official websites of BSE, NSE, SEBI, SMC Trade Online, Association of Mutual Funds in India (AMFI), Mutualfundsindia.com and the journal related to finance, economy, capital market, management and commerce. For the purpose of performance evaluation of sample schemes, Net Asset Value (NAV) data during the period under study were collected from websites of respective Asset Management Companies (AMCs) websites. The data thus collected is analyzed with the help of statistical tools and performance analysis ratio. In order to have a significant evaluation of the investment performance of the sample schemes the BSE 100 has been used as benchmark Index, as it is a broad based index, consisting of 100 actively traded equity shares representing more than 70 percent of the total market capitalization in Bombay Stock Exchange. For the present study, bank rate has been selected as risk free rate of return, as it has been constant for many years and is related with the most commonly preferred investment avenue namely bank deposits. For the present study the average of ten years bank rate has been taken as 7%. (Maruti 2015, Gupta 2014, Lakshmi 2007, Singh 2012).

As on 31st March 2015 there are 43 Asset Management Companies (AMCs) which are actively involved in mutual fund industry in India. Out of 43 number of (AMCs) there were 20 AMC that are operating throughout the ten years period from April 2005 to March 2015, which is considered as the study period. In order to select the schemes for conducting the study, at the first stage 50% of AMCs which are in operation during the period of study has been selected through simple random sampling. At the second stage, only growth option equity oriented mutual fund schemes which were in operation during the entire study period has been considered from each of the AMCs so selected. From each selected AMC's one (01) numbers of equity oriented schemes with growth option has been considered under the study through convenient random sampling. Return, risk, beta, Sharpe , Jensen and Treynor ratio have been used to analyze the data and to arrive at the findings of the study.

SCOPE OF THE STUDY

1. Ten numbers of equity mutual fund schemes have been considered in the present study.
2. The study covers a period of ten years from 1st April 2005 to 31st March 2015.

LIMITATIONS OF THE STUDY

1. The study deals with only select equity schemes of sampled fund houses operating in India and the generalization of the findings is require sufficient caution as the findings are by and large reflect the performance of the select type of schemes only.
2. The calculated performance of the select schemes may not be guaranteed in future and investors have to consider other aspects before making investment.
3. The performance of select schemes is limited only for a period of ten years and findings of the study for other period is by and large reflect the time period specific to the study.

RESULTS AND DISCUSSION

Table1 presents the ten years average return earned by the selected schemes and the average market return during the period of study (2005-06 to 2014-15). Scheme return have been calculated taking the daily adjusted net asset value (NAV) and the market return has been calculated taking BSE-100 as the index value.

Table 1 reveals that all the selected schemes have positive return during the study period whereas out of the 10 selected schemes 8 schemes performed better than the market and remaining 2 schemes are not able to perform well as compared to market return. It is also found that out of the 10 schemes in the study, the top performer is ICICI Prudential Dynamic -G (1.557) and worst performance is seen in case of LIC MF Equity Fund Growth (0.935).

Table 1: Ten Years Average Return of the Selected Schemes

Mutual Fund Schemes	Scheme Return	Market Return	Performance level	Rank
ICICI Prudential Dynamic – Growth	1.557	1.219	O	1st
Franklin India Flexi Cap Fund ,Growth	1.555	1.219	O	2nd
Birla Sun Life Frontline Equity Fund – Growth	1.45	1.219	O	3rd
HDFC Top 200 Fund – Growth	1.45	1.219	O	4th
Reliance Growth Fund - Growth Option	1.415	1.219	O	5th
DSP BlackRock Top 100 Equity Fund - Regular – Growth	1.347	1.219	O	6th
Kotak 50 – Growth	1.319	1.219	O	7th
Tata Large Cap Fund – Growth	1.277	1.219	O	8th
HSBC Equity Fund – Growth	1.133	1.219	U	9th
Lic MF Equity Fund Growth	0.935	1.219	U	10th

Source: Compiled by the Researcher.
O = Out-performed, U = Under-performed

Table 2 presents the ten years average standard deviation of the selected schemes and the average standard deviation of the market during the period of study (2005-06 to 2014-15).

Standard deviation is the standard measure of investment risk. Standard deviation measures investment risk in terms ofthe volatility of returns. It is a measure of the total risk of individual assets and the residual risk of well diversified portfolios. A higher value of SD indicates that the net asset value (NAV) of the mutual fund is more volatile and, it is riskier than a fund with a lower value of SD.

From the table 2, it is found that standard deviation of the selected schemes ranges from 7.282 (LIC MF Equity fund -G) to 5.849 (ICICI Prudential Dynamic – G). It is clear from the Table above that out of 10 schemes selected 2 schemes were more risky as compared to the market which indicating that the scheme returns are highly volatile and assuch the schemes are highly risky whereas, remaining 8 were less risky as compared to the market. From the Table it is also found that the most risky scheme is LIC MF Equity fund -G and the least risky scheme is ICICI Prudential Dynamic – G during the period of study.

Table2: Ten Years Average Standard Deviation (SD) of the Selected Schemes

Mutual Fund Schemes	Scheme SD	Market SD	Risk level	Rank
ICICI Prudential Dynamic – Growth	5.849	6.89	LR	1st
Franklin India Flexi Cap Fund – Growth	6.468	6.89	LR	6th
Kotak 50 – Growth	6.089	6.89	LR	3rd
Birla Sun Life Frontline Equity Fund – Growth	6.823	6.89	LR	8th
HDFC Top 200 Fund – Growth	6.668	6.89	LR	7th
Reliance Growth Fund - Growth Option	6.921	6.89	HR	9th
DSP Black Rock Top 100 Equity Fund - Regular - Growth	6.232	6.89	LR	5th
Tata Large Cap Fund – Growth	5.944	6.89	LR	2nd
HSBC Equity Fund – Growth	6.097	6.89	LR	4th
Lic MF Equity Fund Growth	7.282	6.89	HR	10th

Source: Compiled by the Researcher.
HR = Higher Risk, LR = Lower Risk.

Table 3 presents the ten years average value of beta of the selected Schemes for the period from 2005-06 to 2014-15. Market risk is measured by beta, which is another measure of investment risk that is based on the volatility of returns. Beta measures volatility relative to a relevant baseline rather than to the mean of the asset that is being evaluated. Beta is the appropriate measure of an asset's contribution of portfolio's risk, as it measures only systematic risk, i.e., market risk.

It is found from the below Table that the value of beta ranges from 1.017 (LIC MF Equity fund -G) to 0.797 (ICICI Prudential Dynamic – G). However, out of 10 schemes 9 schemes have defensive beta indicating that the schemes are less risky than the market. From the Table it is also found that the highest beta value is gained by LIC MF Equity fund -G and the least beta value is for the ICICI Prudential Dynamic – G during the period of study.

Table3: Ten Years Average Beta value of the Selected Schemes

Mutual Fund Schemes	Beta (ß)	HR/LR
ICICI Prudential Dynamic – Growth	0.797	LR
Franklin India Flexi Cap Fund ,Growth	0.917	LR
Kotak 50 – Growth	0.88	LR
Birla Sun Life Frontline Equity Fund – Growth	0.902	LR
HDFC Top 200 Fund – Growth	0.985	LR
Reliance Growth Fund - Growth Option	0.934	LR
DSP Black Rock Top 100 Equity Fund - Regular – Growth	0.924	LR
Tata Large Cap Fund – Growth	0.832	LR
HSBC Equity Fund – Growth	0.9	LR
Lic MF Equity Fund Growth	1.017	HR

Source: Compiled by the Researcher.
HR = Higher Risk, LR = Lower Risk.

Table 4 presents the ten years average Sharpe ratio of the selected schemes for the period from 2005-06 to 2014-15. Sharpe Model was developed by William F. Sharpe (1966) to measure the risk premium of portfolio relative to the total amount of risk in the portfolio. Sharpe index summarizes the risk and return of a portfolio in a single measure that categories the performance of funds on the risk-adjusted basis. The larger the Sharpe's Index, the portfolio is over performing the market and vice versa.

It is found from the table 4 that all the selected scheme have positive Sharpe ratio. However, out of the 10 schemes 8 schemes have outperformed the market. It is also found from the table 4 that ICICI Prudential Dynamic–G (0320) has registered the highest performance and Lic MF Equity Fund Growth (0.170) shows the worst performance as against the market Sharpe ratio (0.213).

Table 4: Ten Years Average Sharpe Ratio of the Selected Schemes

Mutual Fund Schemes	Scheme Sharpe	Market Sharpe	Performance level	Rank
ICICI Prudential Dynamic – Growth	0.320	0.213	O	1st
Franklin India Flexi Cap Fund ,Growth	0.270	0.213	O	2nd
Kotak 50 – Growth	0.230	0.213	O	5th
Birla Sun Life Frontline Equity Fund – Growth	0.254	0.213	O	3rd
HDFC Top 200 Fund – Growth	0.240	0.213	O	6th
Reliance Growth Fund - Growth Option	0.220	0.213	O	7th
DSP BlackRock Top 100 Equity Fund - Regular – Growth	0.220	0.213	O	7th
Tata Large Cap Fund – Growth	0.249	0.213	O	4th
HSBC Equity Fund – Growth	0.200	0.213	U	8th
Lic MF Equity Fund Growth	0.170	0.213	U	9th

Source: Compiled by the Researcher.
O = Out-performed, U = Under-performed

Table 5 presents the ten years average Treynor ratio of the selected schemes for the period from 2005-06 to 2014-15. Treynor Model was developed by Jack Treynor in the year 1965, which is based on systematic risk and known as reward to volatility ratio. It measures portfolio risk in terms of beta, which is the weighted average of individual security beats. The ratio is relevant to investors, for whom the fund represents only a fraction of their total assets. The higher the ratio better is the Performance and vice versa.

It is found from the above table that all selected scheme have positive Treynor ratio. However, out of the 10 schemes 8 schemes have outperformed the market. It indicates that the schemes are able to earn higher return than the market per unit of systematic risk undertaken. It is also found from the Table that ICICI Prudential Dynamic–G (2.096) registers the highest performance and LIC MF Equity Fund Growth (0.929) shows the worst performance as against the market Treynor ratio (1.212).

Table 5: Ten Years Average Treynor Ratio of the Selected Scheme

Mutual Fund Schemes	Scheme Treynor Ratio	Market Treynor Ratio	Performance level	Rank
ICICI Prudential Dynamic – Growth	2.096	1.212	O	1st
Franklin India Flexi Cap Fund ,Growth	1.609	1.212	O	2nd
Kotak 50 – Growth	1.363	1.212	O	6th
Birla Sun Life Frontline Equity Fund – Growth	1.514	1.212	O	4th
HDFC Top 200 Fund – Growth	1.533	1.212	O	3rd
Reliance Growth Fund - Growth Option	1.499	1.212	O	5th
DSP BlackRock Top 100 Equity Fund - Regular – Growth	1.347	1.212	O	7th
Tata Large Cap Fund – Growth	1.471	1.212	O	8th
HSBC Equity Fund – Growth	1.199	1.212	U	9th
Lic MF Equity Fund Growth	0.929	1.212	U	10th

Source: Compiled by the Researcher.
O = Out-performed, U = Under-perform

Table 6 presents the ten years Jensen Alpha ratio of the selected schemes for the period from 2005-06 to 2014-15. Jensen Alpha Model was developed by Michael Jensen in the year 1968. The more positive Alpha ratio indicates the better performer by the fund.

It is found from table 6 that all the selected schemes have positive Alpha value which indicated that the schemes performed better than the market. This is an indication of superior management ability of the fund managers of these schemes. From the table it is also found that the ICICI Prudential Dynamic – G (1.196) registered the highest value of Jensen whereas, LIC MF Equity Fund Growth (0.949) registered the lowest Jensen value during the study period.

Table 6: Ten Years Average Jensen Ratio of the Selected Schemes

Mutual Fund Schemes	Jensen Alpha	O / U	Rank
ICICI Prudential Dynamic – Growth	1.196	O	7th
Franklin India Flexi Cap Fund ,Growth	1.499	O	1st
Kotak 50 – Growth	1.266	O	6th
Birla Sun Life Frontline Equity Fund – Growth	1.27	O	5th
HDFC Top 200 Fund – Growth	1.391	O	2nd
Reliance Growth Fund - Growth Option	1.343	O	4th
DSP BlackRock Top 100 Equity Fund - Regular – Growth	1.346	O	3rd
Tata Large Cap Fund – Growth	1.107	O	8th
HSBC Equity Fund – Growth	1.083	O	9th
Lic MF Equity Fund Growth	0.949	O	10th

Source: Compiled by the Researcher.
O = Out-performed, U = Under-performed

SUMMARY OF MAJOR FINDINGS

- It is found from the study that all the selected schemes have positive return and out of 10 selected schemes 8 schemes performed better than the market during the study period.
- It is found that the standard deviation of the selected schemes ranges from 7.282 to 5.849 and out of 10 schemes selected 2 schemes were more risky as compared to the market during the period of study.
- From the value of beta it is found that it ranges from 1.017 to 0.797 and out of 10 schemes 9 schemes have defensive beta indicating that the schemes are less risky than the market.
- From, the study it is also found that both Sharpe ratio as well as Treynor ratio of the selected schemes have positive value whereas ICICI Prudential Dynamic–G scheme is the highest value and Lic MF Equity Fund Growth scheme is the lowest as per both the performance measures.
- The study also found that the Jensen Alpha ratio of all the selected schemes have positive value of Alpha ,whereas out of 10 selected schemes the ICICI Prudential Dynamic – G (1.196) is the highest and Lic MF Equity Fund Growth (0.949) is lowest Alpha value during the study period.

CONCLUSION

The present study investigates the performance of ten open-ended equity oriented growth option mutual fund schemes of ten different AMC's for the period from April'05 to March15. Daily NAV of different schemes have used to calculate the returns, standard deviation, beta, Sharpe, Treynor, and Jensen measure. BSE 100 is taken as a Benchmark Index and RBI Bank rate is used as free rate. The study found that all the schemes have a positive return and from the value of Standard Deviation it is found that two out of ten schemes is more risky as compared to Market Index. From the value of beta it is found that nine out of ten schemes have defensive beta value during the study period. It is also found from the value of three performance measures i.e. Sharpe, Treynor and Jensen that all the schemes have positive value during the study period and ICICI Prudential Dynamic – G is the top performer and Lic MF Equity Fund Growth is the worst performer during the study period.

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