



Scopus® doi

# Journal of Vibration Engineering

ISSN:1004-4523

Registered



SCOPUS



GOOGLE SCHOLAR



DIGITAL OBJECT  
IDENTIFIER (DOI)



IMPACT FACTOR 6.1



Our Website  
[www.jove.science](http://www.jove.science)

# **ANEXTENSIVEANALYSISANDEVALUATIONOFINDIA'S MUTUAL FUNDS**

**AUTHOR : Dr. DEVARAJU VENKATA RAO**

**ASSOCIATE PROFESSOR**

**SREECHAITANYAPGCOLLEGE,KARIMNAGAR,TELANGANA,INDIA.**

## **ABSTRACT**

Today, mutual funds have established themselves as one of the most prominent options available for financial investing. This sector of the Indian financial market known as the mutual fund business is one that is on the rise and expanding at a rapid rate. It offers a wider range of plan to cater to the requirements and desired risk to reward profile of various groups of investors. Small and medium-sized investors are able to engage in today's intricate and cutting-edge financial landscape with the assistance of mutual funds. By purchasing units in the fund, investors are given the opportunity to take part in the mutual fund. A mutual fund is a trust with professionally managed investment assistance that gathers and channels the resources of a number of participants who have a similar financial aim and invests in shares, debt securities, money-market securities, or a mix of these. A mutual fund is also known as a pooled investment vehicle (PIV) since it pools the assets of several investors into a single pool for the purpose of investing. Unit holders are the term used to refer to investors who purchase investments from funds. These securities are managed on behalf of the unit holders by a professional investment manager, and each investor owns a share or unit of the portfolio in proportion to the amount they invested and the net fund value. This means that investors are liable for both gains and losses from the portfolio. After subtracting expenditures, loads, and taxes that are relevant to the situation, the profit or loss incurred as a result of these investments and the realised growth in value are distributed to the unit holders in accordance to the number of units that each individual investor owns.

Keywords: debt securities, money-market securities, risk, rate of return, Portfolio

## **INTRODUCTION**

### **Recent Trends in Mutual Funds in India**

Encouraging stock market performance, inflation rate and attractive interest rates has led to a rise in the growth in the Indian mutual fund industry in the recent years. In the year 2014, change in government and rise in expectations of people leads to sudden growth in capital market. A parallel growth was also observed in the Indian mutual fund industry. Over the last 5 years, the Assets Under Management (AUM) of Indian mutual fund industry grew from 67093099 lakhs in FY 2012 to 182958449 lakhs in FY 2019 showing a compound annual growth

rate(CAGR)of22.21%.Further,theAUMoftheIndianmutualfundindustrywitnessedanexceptionalgrowth of35.17%inFY2017.AccordingtoAssociationofMutualFundsIndia(AMFI)data,AUMgrewfromRs. 13.53lakhcrore in March 2016 to Rs.18.29lakhcrore in March 2019.

### MarketShareofAssetManagementCompanies

AUM penetration of the Indian mutual fund industry as a per cent of GDP is only Approx. 6 percent (Paul, 2014). Despite the relatively low penetration of mutual funds in India, the market is highly concentrated. Though, there are 44 AMCs currently operating in the sector, the AUM of the industry is concentrated with five leading fund houses. Approx. 57 per cent of the total AUM is shared by, ICICI, HDFC, Reliance, Birla Sun Life and SBI Mutual fund.

Rank	FundHouses	AUM(inLakh)	Percentage(%)
1	ICICI Prudential Mutual Fund	24296130.61	13.28
2	HDFC Mutual Fund	23717761.00	12.96
3	Reliance Mutual Fund	21089063.82	11.53
4	Birla Sun Life Mutual Fund	19504900.94	10.66
5	SBI Mutual Fund	15702527.68	8.58
	Others	78647965.78	42.99
	Total	182958349.83	100

Source AMFI- as on 31st March 2019

### LITERATURE REVIEW

Many scholars have made studies on investors' behaviour, and many studies are going on. Also many researches on the performance of mutual fund schemes had been conducted. From the available studies from secondary sources the literature is reviewed here to have better clarity of investors' behaviour and the study. Thereafter the empirical studies done on the similar areas of research in international context as well as in Indian context were highlighted. The purpose of literature survey in any study is to help the researcher, to find out the gap between the research that has already been conducted and the theoretical linkage of the research.

**Deepak Agrawal (2011)** in his research found that since the development of the Indian Capital Market and regulations of the economy in 1992 there have been structural changes in both primary and secondary markets. Mutual funds are primary contributors to the globalization of financial markets and one of the main sources of capital flows to emerging economies. He has analysed the Indian Mutual Fund Industry pricing mechanism with empirical studies on its valuation and also analyse data at both the fund-manager and fund-investor levels. His study revealed that the performance is affected by the saving and investment habits of the people and the second side the confidence and loyalty of the fund Manager and rewards affects the performance of the MF industry in India.

**Prajapati, K. P., & Patel, M. K. (2012)** in their research evaluated the performance of Indian mutual funds which is carried out through relative performance index, risk-return analysis, Treynor's ratio, Sharpe's ratio, Sharpe's

measure, Jensen's measure, and Fama's measure. The data for analysis used is daily closing NAVs. The study period was 1<sup>st</sup> January 2007 to 31<sup>st</sup> December, 2011. The results of performance measures concluded that most of the mutual funds have given positive return during 2007 to 2011.

of 28 equity diversified Indian fund schemes for the period from January 2007 to June 2011. The selected equity diversified fund schemes show mixed performance. He found that about 60% of the fund schemes were able to beat the benchmark markets. Better performing fund schemes were exposed to higher risk but were less afflicted to market risks. All the schemes under study were relatively exposed to less risk than the market, however with high degree of volatility. A majority of the funds were reasonably diversified and reduced the unique risk. Consequently, unique risks and the returns were negatively associated. The study also exposes that about 58% of fund schemes were capable of beating the market by stock selection skills. He recommends that, as far as market timing is concerned, the fund managers almost failed both to book the profits in the up market and accumulate the stock in the down market.

**Bansal, S., & Yash, P. T. (2014)** in their research made attempts to have a comparative study on Performance Evaluation of Large Cap Equity and Debt Mutual Fund Schemes. It consists of data of returns and volatility measures of sample equity and debt mutual funds schemes. The research methodology tools include Standard Deviation, Sharpe ratio, Beta, Alpha, R-squared and Treynor ratio. The results concluded that out of all equity mutual fund schemes, UTI opportunities fund is the best as it has lowest standard deviation, lowest beta, highest value of alpha, highest Sharpe ratio and highest Treynor ratio. But in case of debt mutual fund scheme UTI short term Income fund is not performing so in case of debt schemes as it has highest beta and lowest Sharpe Ratio. The present study will be significant not only for investors but also for the asset management companies so as to evaluate their portfolio and performance.

**Renu Gosh (2014)** evaluated the performance of mutual funds through risk-return analysis, Treynor's ratio, Sharpe's ratio, Jensen's measure and Fama's measure. The facts used in the study is daily closing NAVs of selected schemes consist of three public-sponsored, three private-sponsored and three private (foreign)- sponsored mutual fund schemes for the period from 1<sup>st</sup> January 2010 to 31<sup>st</sup> December 2013. With the results of performance measures, she suggested and concluded that the private foreign companies sponsored mutual fund scheme performance is better than public and private companies-sponsored mutual fund schemes.

**Busse, Goyal and Wahal (2014)** examine active retail mutual funds and institutional products with an authorization to invest in global equity markets between 1991 and 2009. They find little reliable evidence of alphas in the aggregate or on average after study using global and regional factor models. The right tail of the distribution contains some large alphas. Decomposing stock selection from country selection, they find some evidence of superior stock picking abilities in the extreme right tail. However, simulations suggest that they are produced just as likely by luck as by skill. Persistence tests show little evidence of continuation in superior performance.

**Bhutada et, al. (2015)** had made a comparative analysis of mutual fund schemes available at Kotak mutual fund and HDFC mutual fund. The study conclude that Kotak Mutual Fund schemes are more destructive in Large Cap Equity schemes and HDFC Mutual Fund schemes are more destructive in Mid Cap Equitieschemes where as both the companiesschemes are very well managed in debt market.Kotak Select Focus is the best scheme in LargeCap Equity, HDFCMid-Cap is the best scheme in Mid-Cap sector andHDFC Balanced Fundis the bestschemein Balanced Fund for investment.

**DrNaveenPrasadula (2020)** investigated theperformanceofopen-ended, growth-oriented equityschemes for the period from April 2011 to March 2019 of transition economy. Daily closing NAV of different schemes have been used to calculate the returns from the fund schemes. BSE-sensex has been used for market portfolio. The historical performance of the selected schemes were evaluated on the basis of Sharpe, Treynor, and Jensen's measure whose results will be useful for investors for taking better investment decisions. The study revealed that 14 out of 30 mutual fund schemes had outperformed the benchmark return. The results also showedthat someof theschemeshadunderperformed;theseschemeswerelifingthediversificationproblem.Inthstudy,the Sharpe ratio was positive for all schemes which showed that funds were providing returns greater thanrisk freerate. Results of Jensen measure revealed that 19 out of 30 schemes were showed positive alpha which indicated superior performance of the schemes.

#### **RATIONALEOFTHSTUDY:**

India is one among the top 7 world's largest economy and India's savings rate is very high in comparison to other countries.Inordertoaccelerateeconomic developmentofourcountry,itisnotonlynecessarytoincreasetherate of savings but also to improve the holding pattern of such savings. As investment directly in the equity shares is too risky, mutual funds have become route in mobilization and allocation of resources. The mutual fundindustry has registereda healthy growth in the past fewyears. But still there is lot scope as the rate of conversion of household savings into mutual fund investment in our country is very low. And the awareness about Mutual Funds, its different schemes and its benefits may boost the investmentin MF schemes.

With this emergence of many companies offering various schemes an average investoris unableto take a decision regarding selection of scheme. This critical studywould help potential investors for making investment decisions, as well as it will be helpful to researchers for further detailed study.Many studies have been undertaken on the performance of mutual fund schemes. However, particular study in the schemes that are selected here is insufficient.

Thus, there is a need for the present study to bring to light the performance of these selected schemes of mutual funds, which can help the retail investors to make valued judgment and support in selecting category of schemeson the basis of performance. This study will also help the society at large, government, academicians, and managers of asset management companies as well.

#### **OBJECTIVEOFTHSTUDY**

1. To analyse the performance of these selected mutual fund equity schemes on risk and return basis.

## **HYPOTHESEIS OF THE STUDY**

$H_{01}$ : There is no significant difference in the average return of Large Cap Mutual Fund

Schemes in India.

## **PROFILE OF THE SELECTED MUTUAL FUNDS**

In this study for the purpose of performance evaluation of equity schemes, top five mutual fund companies have been selected on the basis of performance related to their market share in Indian mutual fund industries. Name of the fund houses are as follows:

1. ICICI Prudential Mutual Fund
2. HDFC Mutual Fund
3. Reliance Mutual Fund
4. Birla Sun Life Mutual Fund
5. SBI Mutual Fund

Schemes from the above selected mutual funds are taken for study and performance analysis. The performance of selected mutual funds has been analyzed on the basis of risk - return relationship using standard performance evaluation measures. The researcher has attempted to analyze the performance of the selected 15 schemes of the top five selected mutual funds companies during the period April 2009 to March 2019. Sample schemes selected are from the category Large Cap funds (with Growth option) one each from each category of top five funds house. Schemes category is as under:

**Large Cap Funds:** Funds which invest a larger proportion of their corpus in companies with large market capitalization are called large cap funds. Large Cap schemes one each from selected top five funds houses are as follows:

1. ICICI Prudential Top 100
2. HDFC Top 200
3. Reliance Top 200
4. Birla Sun Life Top 100
5. SBI Magnum Blue Chip

Based on the previous studies or literature review it is found that so far some researches deal with statistical tools or quantitative tools to analyze the performance of the mutual fund schemes. All researches will use one or two methods to compare the mutual funds of one or two companies or schemes only or comparing performance between public sector and private fund houses. Some of the researches focused only on particular segment of fund and bring forth the funds advantage and disadvantage only. No researches have focused on comparing the similar type of open ended growth schemes in various categories like Large Cap, Mid & Small Cap and Diversified/Multi Cap funds. Hence this research has been taken to fill the gap to compare selected schemes from top five fund mutual fund houses in the various categories by using of different statistical and ratio analysis.

### **Performance Evaluation of the Selected Mutual Fund Schemes**

#### **Performance Analysis of Large Cap funds**

The results of return, risk, beta and coefficient of determination of selected Large Cap schemes with benchmark index (S&P BSE 100) return for all the five schemes for 10 years shows competency to make out a strong case for investment.

#### **SUMMARY OF RISK, RETURN, BETA AND R SQUARE (APRIL 2009 TO MARCH 2017)**

<b>S.No.</b>	<b>Schemes</b>	<b>Scheme Return</b>	<b>Scheme Risk</b>	<b>Beta</b>	<b>R Square</b>
1	ICICI Top 100	1.1320	6.0334	0.817	0.948
2	HDFC Top 200	1.3147	6.8783	0.934	0.953
3	Reliance Top 200	1.1298	6.7826	0.910	0.955
4	Birla Top 100	1.1764	6.1505	0.838	0.960
5	SBI Blue Chip	1.1105	6.5704	0.894	0.958

The maximum return was from HDFC Top 200 (1.3147) and minimum return was from SBI Blue Chip (1.1105). Standard Deviation of schemes is to measure the risk of the fund and it is found that all five schemes have more risk. It is observed that maximum deviation of fund returns is shown by HDFC Top 200 (6.8783) whereas ICICI Top 100 (6.0334) was the least risky scheme. In the context of Beta ( $\beta$ ) which implies the responsiveness of the return on the mutual fund scheme in association with the fluctuations in the benchmark index. HDFC Top 200 (0.934) found to be more risky among all the selected schemes whereas ICICI Top 10 (0.817) found to be more stable and less risky. The co-efficient of determination ( $R^2$ ) is measured with the market index of S&P BSE 100 for the period of study. The highest  $R^2$  value was found in Birla Top 100 (0.960) followed by SBI Blue Chip (0.958), Reliance (0.955), HDFC (0.953) and ICICI (0.948) which indicated that these schemes have performed well diversification.

**RANKING OF LARGE CAP SCHEMES ON THE BASIS OF SHARPE, TREYNOR AND ALPHA MEASURE FOR 10 YEARS (APRIL 2009 TO MARCH 2019)**

S.No.	Schemes	Sharpe Measure	Ranks	Treynor Measure	Ranks	Jenson Alpha	Ranks
1	ICICITop100	0.0791	3	0.5836	3	0.2220	4
2	HDFCTop200	0.0959	1	0.7060	1	0.3682	1
3	RelianceTop200	0.0700	4	0.5217	4	0.2508	3
4	BirlaTop100	0.0848	2	0.6220	2	0.2599	2
5	SBI BlueChip	0.0693	5	0.5091	5	0.1764	5

- Sharpe ratio depicts scheme excess returns earned above risk-free return to per unit of standard deviation. It is revealed from the above table that highest positive value of Sharpe measure was found in HDFC Top 200 (0.0959) and the lowest sharpe value was found in SBI Blue Chip (0.0693).
- In the context of Treynor measure which depicts the funds excess return above risk free rate per unit market risk, HDFCTop 200 (0.7060) is the top performer of the schemes whereas SBIBlueChip(0.5091) showed least Treynor value among these selected Large Caps schemes.
- Higher the alpha value represents that fund return has over performed the benchmark index. Higher alpha was found with HDFC Top 200 (0.3682) and SBI Blue Chip remains at last with least alpha value(0.1764).
- It is clear from the findings, all the five schemes for ten years shows competency to make out a strong case for investment. The maximum return was from SBI Blue Chip (1.5667) and minimum return was from HDFC Top 200 (1.2881). It is observed that the maximum deviation of fund returns is shown by HDFCTop200(5.1528) followed by RelianceTop200(4.5064), whereas SBIBlueChip(3.804) was the least risky scheme with lower SD.
- In the context of beta, it is observed that the Reliance Top 200 (1.004) and HDFC Top 200 (1.168) large cap schemes of mutual fund have registered beta more than one. In the other three schemes ICICITop 100(0.896), Birla Top 100(0.990) and SBI BlueChip(0.856) have beta values less than one indicated low risk in these schemes. The highest R Square value was found in Birla Top 100 (0.961) followed by HDFCTop200(0.936), SBIBlueChip(0.922), ICICITop100(0.908), and RelianceTop200(0.904) which indicated that all these schemes have performed well diversification.
- Hypothesis H<sub>01</sub> found rejected, as for 10 years it is observed that the mean of highest R Square value was found in Birla Top 100 indicated a difference in among other schemes. Hence, in this context the null hypothesis stands rejected.

## CONCLUSION

This study concludes that Mutual funds are among the most preferred investment instruments among the respondents. For middle income individuals, investing in mutual funds yield higher interest and comes with good principal amount at the end of the maturity period of the mutual fund investment. According to intermediaries important fact is revealed that mutual funds are safe, with close to zero risk, offering an optimized return on earnings and protecting the interest of investors. It is important to gain good understanding of mutual



fund investments, companies in the field, and mutual fund experts, as customers are easily misguided by the advertisements and offers promoted by various financial institutions.

A large number of investor switches from fund to gain more from changing market situations. on the other hand 64% investor prefer to invest in existing mutual fund as they analyse schemes looking at its past performance and they feel that investment in newly launch funds or schemes may involve high risk and at the same time they bear high expenses which may reduce their returns. Mutual fund companies should come forward with full support for the investors in terms of advisory services, participation of investor in portfolio design, ensure full disclosure of related information to investor.

Proper consultancy should be given by mutual fund companies to the investors in understanding terms and conditions of different mutual fund schemes. Such type of fund designings should be promoted that will ensure to satisfy needs of investors, mutual fund information should be published in investor friendly language and style, proper system to educate investors should be developed by mutual fund companies to analyse risk in investments made by them, etc. On the other it is required from government and regulatory bodies point of view that more law should be there to secure the funds of investor to be exploited, more tax rebates should be given on mutual fund investment, proper and effective grievance system, right of investor education, and more control on asset management companies should be there.

## SUGGESTIONS

This study has given some suggestions for creating awareness about the mutual fund investment and schemes so that mutual fund investors may get information that helps out in their investment decision. Intermediaries providing consultancy, they would understand the need of investors and suggest plan accordingly. These are as follows:

- ❖ Most of the investors are not aware of dealing in Mutual Fund. Investors interested to invest in MF schemes should be given some basic knowledge about operations of Funds. Investors should also be aware to frame their investment objectives and know how to diversify the risk in their portfolios.
- ❖ Government and Mutual Fund organizations should also take some initiative to motivate women investors by educating them and providing extra benefits to them in all types of investments.
- ❖ It is also suggested the AMC's should come up with some focused investment solutions for focused group of investors. Where they can manage investment taking risk and can get better returns beating inflation.
- ❖ Government and investment companies should take initiative to come forward with full support for the investors in terms of investors' awareness, advisory services, participation of investor in portfolio design & management, ensure full disclosure of related information to the investors.
- ❖ Proper consultancy should be given to the investors after identifying their needs & make them understand terms, conditions and operations of different schemes. Information should be published in investor friendly language and style, effective grievance system, education on investors' right and more control on asset management companies should be there. So that more investors could step forward which will ultimately

## REFERENCES

- Agrawal,D.(2011).MeasuringperformanceofIndianmutualfunds.FinanceIndia,June2011.
- Prajapati,K.P.,&Patel,M.K.(2012).Comparativestudyonperformanceevaluationofmutualfund schemes of Indian companies. *Researchers World*, 3(3), 47.
- Ferreira,M.A.,Keswani,A.,Miguel,A.F.,&Ramos,S.B.(2012).Thedeterminantsofmutualfund performance: A cross-country study. *Review of Finance*, rfs013.
- InderS.andVohraD.(2012).Mutualfundperformance:ananalysisofindexfunds.
- Dr Naveen Prasadula (2020) Dr Naveen Prasadula Review of Literature on A critical analysis of mutual funds in indiaKumar, R. (2012). Market timing, selectivity and mutual fund performance: an empirical investigation ofselectiveequity diversifiedschemesinIndia.*IUPJournalofFinancialEconomics*, 10(1), 62.
- Bansal,S.,&Yash,P.T.(2014).Comparative studyonperformanceevaluationoflargecap equityand debt mutual fund schemes. *Open Journal of Finance*, 3, 1-13.
- Ghosh, R. (2014). Performance Evaluation of Mutual Funds inIndia.*The Indian Journalof Commerce*, 67(3), 66.
- Busse, J.A.,Goyal,A., &Wahal,S.(2014).Investinginaglobalworld.*ReviewofFinance*, 18(2),561- 590.
- Bhutadaet, al. (2015). Comparative Analysis ofMutual Fund Schemes available at Kotak MutualFundand HDFC Mutual Fund: Maharashtra: *International Journal of Research in Finance and Marketing*. Vol. 5, pp, 89-99.
- N. Bhagyasree& B. Kishori (2016)A Studyon Performance Evaluation of Mutual FundsSchemes inIndia. *International Journal for Innovative Research in Science & Technology*. Vol.2, Issue 11, pp. 812- 816.
- Kaur M. & Vohra T. (2012). Understanding Individual Investor's Behaviour: A Review of Empirical Evidences. *Pacific Business Review International*, 5 (6), 10-18.
- [www.amfiindia.com](http://www.amfiindia.com)
- <http://www.njwealth.in/njwealth/historicalNav.fin?cmdAction=loadHistoricNav>
- <http://economictimes.indiatimes.com/definition/market-capitalization>
- [www.bseindia.com](http://www.bseindia.com)
- <https://in.investing.com/rates-bonds/india-10-year-bond-yield-historical-data>
- <https://www.amfiindia.com/new-to-mutual-funds/what-are-mutual-funds>
- <https://www.mutualfundindia.com/Home/MfBasics>
- [http://timesofindia.indiatimes.com/articles/Different-Types-and-Kinds-of-Mutual-Funds/articleshowhsbc/22624820.cms?gclid=COP4t73k5M8CFZeOaAodSUIJ\\_w](http://timesofindia.indiatimes.com/articles/Different-Types-and-Kinds-of-Mutual-Funds/articleshowhsbc/22624820.cms?gclid=COP4t73k5M8CFZeOaAodSUIJ_w)