MUTUAL FUND SCHEMES IN INDIA: AN ANALYSIS OF PERFORMANCE

Introduction

A mutual fund is a trust that pools the savings of a number of investors who share a common financial goal. It is considered the most suitable investment option for the common man as it allows investors to pool their money for a diversified selection of shares/securities, managed by professional and experienced fund managers. It helps to mitigate risks to a large extent by distributing investment across a diverse range of assets. A mutual fund’s portfolio is structured and maintained to match the investment objectives stated in its prospectus. Apart from pooling resources from small investors, they also provide informed decision-making mechanism to them. Thus, they contribute to not only financial sector participation, but also financial inclusion and thereby enhance market efficiency. Additionally, they contribute to financial stability and help in enhancing market transparency.

Mutual fund is a mediator that brings together a group of people and invests their money in stocks, bonds and other securities. Each investor owns shares, which represent a portion of the holdings of the fund. Thus, a mutual fund is one of the most viable investment options for the common man as it offers an opportunity to invest in a diversified, professionally managed basket of securities at a relatively low cost. Each basket holds certain types of stocks, bonds or a blend of stocks and bonds to combine for one mutual fund portfolio. Since mutual funds can hold hundreds or even thousands of stocks or bonds, they are described as diversified investments.

Need and Significance of the Study

The literature review very clearly indicates that there is a need for undertaking a comprehensive study to evaluate the performance of mutual funds through certain performance measurement. Hence the present study entitled “Mutual Fund Schemes in India - An Analysis of Performance” is proposed to fill the gap between past studies and the present economic conditions by undertaking a risk return analysis for different investment options available to investors.
Accordingly, the study provides a meaningful contribution in today’s era. The findings of the study would be beneficial to policy makers, distributors, Asset Management Companies (AMCs), various types of investors, multiple groups of other people and economy as whole. With emphasis on increase in domestic savings and increase in investment through capital markets, the need and scope for mutual fund operation has increased tremendously. Growth and developments of various mutual funds products in the Indian capital market has demonstrated to be one of the most important instruments in generating significant growth in the capital market. Further, the significance of this study can be obtained in terms of detailed findings of this research on various mutual fund schemes in rest of the part of this thesis.

**OBJECTIVES OF THE STUDY**

Following are the objectives of the present study:

1) To describe the regulatory framework and growth of mutual fund industry in India.

2) To explore the risk return analysis of selected mutual fund schemes.

3) To study the performance of mutual fund schemes with the help of performance evaluation models.

4) To present a comparative performance status of selected mutual fund schemes in India.

5) To describe the major findings of the study and make recommendations on the basis of detailed performance analysis.

**SCOPE OF THE STUDY**

The present study comprises of 54 mutual fund schemes managed by different AMCs in India. The study period of 13 years i.e. from April 2003 to March 2016, based on the availability of published data, has been considered for the study. The analysis of returns of mutual fund schemes is done on the basis of NAV and movements in stock indices on a daily basis (Trading Days) and availability of data in respect of the selected schemes. These schemes are compared with Bombay Stock Exchange Sensitive Index (BSE SENSEX) to evaluate the performance of these schemes.
COLLECTION AND CONVERSION OF DATA

The study is based on secondary data. To make the study more analytical and scientific; and to arrive at definite conclusions, the secondary data is collected from SEBI Data Base, RBI, BSE Publications, Reports of SEBI, fact books, websites of different AMCs. Required data relating to Net Asset Value (NAV) of various mutual fund schemes has been collected on daily basis for the study period from the Financial Express, Economic Times, Business Standard and various websites such as www.amfiindia.com, www.mutualfundindia.com. BSE SENSEX has been taken as the benchmark index and historical data is used for computation of market return. The work of the academicians on this subject has also been consulted for the purpose of analysis and risk-free rate of return is assumed to be 8% per annum.

After the collection of NAV, there is a need to convert the NAV in the usable data of returns; for this, certain calculations have been made which are explained below:

**Measurement of Return:** Net Asset Value (NAV) is the most widely accepted yardstick for measuring the performance of mutual funds. The NAV is the market value of the assets of the schemes minus its liabilities. Per unit NAV is the net asset value of the scheme divided by the number of units outstanding on the valuation date. Average quarterly returns have been calculated on the basis of change in NAVs.

**Measurement of Risk:** Risk is the variability in the actual returns in relation to the estimated returns. Risk Premium is the compensation over and above the risk free rate of return that investors require for the risk contributed. Risk may be classified as diversifiable (unsystematic) and non diversifiable (systematic). Unsystematic risk can be removed through diversification, therefore, in the present study unsystematic Risk for performance evaluation has not been considered. However, systematic risk and coefficient of variations have been utilized.

**Systematic Risk (Beta):** The systematic risk of a security is measured by a statistical measure called Beta. The input data required for the calculation of beta are the historical data of returns of the individual scheme as well as the returns of the representative stock market index which in this study is BSE SENSEX. Beta is calculated from the historical data of returns.
Coefficient of Variation: To analyze the consistency of growth in variables, the coefficient of variation (C.V.) has been worked out.

STATISTICAL TOOLS

Descriptive Statistics: Simple average that is commonly known with the name of mean ($\bar{X}$) is calculated on daily returns (trading days) to average out these returns in particular years. Along with mean, standard deviation ($\sigma$) has been used as a measure of average deviation of daily returns from mean return of a specified year.

Correlation: Correlation measures the degree of association between two or more variables. When we are dealing with two variables, we are talking in terms of simple correlation ($r$) and when more than two variables are involved, the subject matter of interest is called multiple correlations ($R$). In the present study there are two variables i.e. scheme return and market benchmark return i.e. BSE SENSEX. Hence simple correlation has been used in the study.

t-test: Further, in order to analyze the mean differences in scheme returns and market index returns paired t-test has been applied.

Further, chapter 5 utilizes certain Portfolio models in order to analyze the performance of mutual funds. Portfolio theory of performance evaluation suggested by Harry Markowitz gave a new direction and completely revolutionized the thinking on the issue. This theory was followed by Capital Asset Pricing Model (CAPM) developed by William S Sharpe. Several measures of performance of managed portfolio have been developed by taking risk and return characteristics into consideration. However, the credit of developing the measures for performance evaluation of managed portfolio goes to Sharpe (1966), Treynor (1966), Jensen (1968) and Fama (1970) whose contributions are widely acknowledged and accorded both by academicians and practitioners as well. This research undertakes Sharpe’s model, Treynor’s model and Jensen’s model to examine mutual funds performance level.

Sharpe Ratio: The performance measure developed by William Sharpe is referred to as the Sharpe ratio or reward to variability ratio. It is the ratio of reward or risk premium to the variability of return or risk as measured by the standard deviation of
return. The Sharpe ratio is important from small investors’ point of view as it helps those who seek diversification through mutual fund and choose mutual fund that represents the majority of their investments.

**Treynor Ratio:** Performance measure developed by Jack Treynor is referred to as Treynor ratio or reward to volatility ratio. It is the ratio of the reward or risk premium to the volatility of return as measured by the portfolio beta.

**Jensen Ratio:** This ratio attempts to measure the differential between the actual return earned on a portfolio and the return expected from the portfolio (given its level of risk). It helps in evaluating the ability of the fund manager in identifying the undervalued securities and thereby generating excess returns than the benchmark. Hence, the ability of stock selection can be known with the help of Jensen’s Alpha.

**FINDINGS**

The findings based on the performance evaluation models have been presented below:

**A) MUTUAL FUND SCHEMES: RISK RETURN ANALYSIS**

**Sector Specific Schemes**

The findings reveal that under the sector specific dividend schemes Birla New Millennium, Franklin InfoTech, ICICI Tech, SBI IT, SBI FMCG and SBI Pharma dividend schemes earned higher returns as compared to the market return during the study period. The comparative analysis for risk level indicates that the selected mutual fund schemes were more risky as compared to market risk except ICICI FMCG dividend scheme, which generated high returns at low risk during the study period 2003 -2016. Further, regarding sector specific growth schemes the result revealed that Birla new millennium growth scheme, DSP Black Rock, ICICI Technology, SBI Pharma and Franklin InfoTech growth scheme yielded higher return as compared to market return at a high risk than the market risk, whereas ICICI FMCG growth scheme yielded high return at low risk during the study period. Hence, it may be concluded that ICICI FMCG dividend and growth schemes outperformed the market at lower risk under sector specific scheme category during the study period.
Sector Specific Dividend Schemes

The findings reveal that under the sector specific dividend schemes the security risk remained high ranging from 6 to 13 years in comparison to market risk during the study period. Franklin InfoTech scheme yielded highest risk throughout the study period as compared to market risk whereas in case of ICICI FMCG scheme it was for 6 years (lowest). As far as the performance of the schemes is concerned (on the basis of return earned by the scheme in comparison to market index return) the result reveals that all schemes outperformed the market index during the study period proving the fact that high risk means high return. The Birla new millennium, ICICI Tech and SBI Pharma scheme underperformed in 2008-09 and Franklin InfoTech, ICICI FMCG and SBI IT schemes showed poor performance in the year 2007-08 and 2008-09. SBI FMCG scheme outperformed during the study period. From the Correlation analysis it is found that all the correlations are statistically significant throughout the study period ranging from high to low degree. It is also observed that statistically there is significant difference in the performance of schemes (varying from 5 to 10 years) as reflected by t-statistics. It indicates that the security returns are much higher than market returns during these years.

Sector Specific Growth Schemes

The findings of the present study highlights that Franklin InfoTech scheme yielded highest risk (13 years) as compared to market risk, whereas in case of ICICI FMCG scheme the risk was for 4 years only (lowest) though overall the security risk remained high ranging from 4 to 13 years in comparison to market risk during the study period under the sector specific dividend schemes. As far as the return earned by the scheme in comparison to market index return is concerned it is found that all schemes outperformed the market index during the study period with the exception that Birla new millennium, DSP Black Rock, ICICI Technology and SBI Pharma underperformed in comparison to market return in 2008-09 and Franklin InfoTech showed poor performance in the year 2007-08. ICICI FMCG scheme outperformed during the study period. From the Correlation analysis it is found that all the correlations are statistically significant throughout the study period. It is also observed that statistically there is significant difference in the performance of schemes (varying
from 6 to 10 years) as reflected by t-statistics indicating thereby that the security returns are much higher than market returns during these years.

**Multi Cap Schemes**

The obtained findings depicts that multi cap dividend and growth schemes i.e. HDFC capital builder fund multi cap dividend scheme, HDFC equity fund, ICICI Prudential dividend scheme, ICICI Prudential growth scheme and HDFC equity fund growth scheme were more risky than market but yielded higher return than the market return. All schemes under multi cap category outperformed the market during the study period.

**Multi Cap Dividend Schemes**

The analysis of the present study makes it amply clear that multi cap dividend schemes were more risky than market. HDFC equity fund and ICICI Prudential schemes yielded highest risk (13 years) as compared to market risk, whereas during 11 years HDFC capital builder scheme was having more risk than the market risk. The results of performance of the schemes reveal that all schemes outperformed the market index during the study period except 2008-09. From the Correlation analysis it is found that all the correlations are statistically significant throughout the study period, though degree vary ranging from high to low. Further t-statistics indicates that multi cap dividend schemes yielded much higher return than the market index during two to four years, whereas in remaining years returns are almost same.

**Multi Cap Growth Schemes**

Risk analysis depicts that in comparison to market risk HDFC equity fund and ICICI Prudential yielded highest risk during the study period with the exception that HDFC equity fund scheme was less risky in the year 2010-11. As far as the performance of the schemes is concerned (on the basis of return earned by the scheme in comparison to market index return) the result reveals that both schemes outperformed the market index during the study period except 2008-09. From the Correlation analysis it is found that all the correlations are statistically significant throughout the study period and the degree of correlation was high in both the schemes except 2014-15(low correlation for ICICI Prudential and insignificant correlation in HDFC equity fund). It
is also observed that statistically there is significant difference in the performance of schemes (varying from 10 to 12 years) as reflected by t-statistics. It indicates that the security returns are much higher than market returns during these years.

**Mid Cap Schemes**

The findings reveal that under the mid cap dividend schemes Birla sun life scheme and Franklin India prima fund yielded higher return at higher risk as compared to market, whereas the Birla sun life mid cap growth scheme, Franklin India prima fund growth scheme, and Sundaram select mid cap growth schemes yielded higher return and outperformed the market. The growth schemes yielded high return at low risk in comparison to the market and it may be concluded that in comparison to mid cap dividend scheme the mid cap growth scheme yielded higher return at lower risk.

**Mid Cap Dividend Schemes**

The analysis reveals that the element of risk under mid cap dividend schemes remained high in comparison to market risk under during the study period except 2004-05, 2008-09 and 2011-12. As far as the performance of the schemes (return earned by the scheme in comparison to market index return) is concerned the result highlights that all the selected schemes outperformed the market index during the study period. However, Birla sun life scheme underperformed in 2008-09 and Franklin India prima fund showed poor performance during 2008-09 and 2010-11. The Correlation analysis depicts that all the correlations are statistically significant throughout the study period although degree vary from high to low. It is also observed that statistically there is significant difference in the performance of schemes (varying from 3 to 4 years) as reflected by t-statistics. It indicates that the security returns are higher than market returns during these years.

**Mid Cap Growth Schemes**

The obtained findings highlights that Birla sun life yielded highest risk during 8 years as compared to market risk, whereas in case of Franklin India Prima Fund and Sundaram select schemes remained risky during 7 years. Performance analysis reveals that all schemes outperformed the market index during the study period except 2008-09. From the Correlation analysis it is found that the correlations (range from high to
moderate degree) were statistically significant throughout the study period. Further t – ratio depicts that mid cap growth schemes yielded much higher return than market index during 9 to 10 years, whereas remaining years show almost similar returns.

**Equity Diversified Schemes**

The findings based on risk return analysis indicate that the security risk remained higher in comparison to market risk during the study period under the equity diversified dividend and growth schemes i.e. DSP Black Rock opportunities fund - regular plan dividend scheme, Franklin India opportunities fund dividend scheme, Franklin India prima plus fund dividend scheme, Franklin India opportunities fund growth scheme, Franklin India prima plus fund growth scheme, JM Basic fund growth scheme and Principal growth fund equity diversified growth scheme. All these schemes outperformed the market and yielded higher return than the market return during the study period 2003-2016. It was also identified that Franklin India prima plus fund growth scheme yielded high return at low risk during the study period.

**Equity Diversified Dividend Schemes**

The findings based on risk analysis indicate that the security risk remained high in comparison to market risk during the study period under the equity diversified dividend schemes. The risk in case of Franklin India opportunities fund was highest as compared to market risk, whereas in case of DSP Black Rock opportunities fund - regular plan scheme risk was during 10 years. According to performance analysis i.e. return earned by the scheme in comparison to market index return, the result reveals that all schemes outperformed the market index during the study period. However, Franklin India opportunities fund and Franklin India prima plus scheme underperformed in 2008-09 and DSP Black Rock opportunities fund - regular plan showed poor performance in the year 2012-13. Further it is found that all the correlations are statistically significant throughout the study period as per Correlation analysis. Franklin India opportunities fund showed high degree of correlation except 2005-06(moderate correlation).From significant t-ratio it is observed that (4 to 6 years) the scheme returns were much higher than market returns, otherwise returns are almost same.
**Equity Diversified Growth Schemes**

The findings reveal that under the equity diversified growth schemes Franklin India Opportunities Fund and JM Basic scheme yielded highest risk throughout the study as compared to market risk, whereas risk in case of Franklin India Prima Plus and ICICI Prudential dynamic plan schemes was almost same as yielded by the market. From the performance analysis it is observed that all schemes outperformed the market index during the study period except Franklin India opportunities fund and Principal growth fund underperformed in 2008-09 and JM Basic fund showed poor performance in the years 2003-04, 2008-09 and 2010-11. Franklin India prima plus and ICICI Prudential dynamic plan scheme outperformed during the study period. From the Correlation analysis it is found that all the correlations, ranging from high to moderate degree, are statistically significant throughout the study period. Franklin India opportunities, Franklin India prima plus and ICICI Prudential dynamic plan observed high degree of correlation during the study period. It is also observed that most of the time during study period statistically there is significant difference in the performance of schemes as per t- statistics indicating thereby that the security returns are much higher than market returns during that time.

**Balanced Fund Schemes**

The findings make it amply clear that Birla sun life dynamic asset allocation balanced fund dividend scheme, DSP Black Rock balanced fund dividend scheme, Escorts balanced fund dividend scheme, JM balanced fund dividend scheme, LIC MF balanced fund dividend scheme, Birla sun life India opportunities fund balanced fund dividend scheme, Birla sun life balanced 95 fund growth scheme, Birla sun life dynamic asset allocation balanced fund growth scheme, DSP Black Rock balanced fund growth scheme, HDFC prudence fund balanced fund growth scheme, JM balanced fund balanced fund growth scheme, LIC MF balanced fund growth scheme generated higher returns as compared to the market return during the study period (2003-2016). The risk analysis of these schemes revealed that balanced fund growth schemes were less risky as compared to the dividend schemes. Furthermore, Birla sun life dynamic asset allocation balanced fund growth scheme and DSP Black Rock balanced fund growth scheme remained less risky throughout the study period as
compared to market risk and generated higher returns as compared to other schemes in this balanced fund category. Birla sun life dynamic asset allocation balanced fund dividend scheme, Birla sun life balanced 95 fund growth scheme, HDFC Prudence fund balanced fund growth scheme, JM balanced fund balanced fund growth scheme, LIC MF balanced fund growth scheme also marked less risk as compared to market risk but yielded higher returns than the market returns. Overall the balanced fund growth schemes performed much better than dividend schemes.

**Balanced Fund Dividend Schemes**

The findings make it amply clear that that the security risk remained high (ranging from 2 to 11 years) in comparison to market risk during the study period under the balanced fund dividend schemes. Birla sun life India opportunities fund yielded highest risk (11 years) as compared to market risk, whereas Birla sun life dynamic asset allocation scheme remained risky than market risk only for 2 years. The performance analysis reveals that all schemes outperformed the market index during the study period with the exception that Birla sun life dynamic asset allocation scheme underperformed in 2005-06 and 2012-13, Escorts balanced fund scheme showed poor performance in the year 2004-05 and JM balanced fund and Birla sun life India opportunities fund schemes outperformed during the study period with the exception of 2008-09. DSP Black Rock scheme outperformed during the study period. From the Correlation analysis it is found that all the correlations are statistically significant throughout the study period, though correlation vary from high to low degree. Further significant t- ratio indicates that statistically the security returns are much higher than market returns during these years.

**Balanced Fund Growth Scheme**

The result of risk analysis indicates that the security risk remained low in comparison to market risk during the study period under the balanced fund growth schemes. Birla sun life balanced 95 fund and DSP Black Rock yielded less risk as compared to market risk. Further performance analysis highlights that all schemes outperformed the market index during the study period except JM balanced fund, which underperformed in 2003-04 and 2008-09. From the Correlation analysis it is found that all the correlations are statistically significant throughout the study period. Birla
sun life dynamic asset allocation, DSP Black Rock and LIC MF balanced fund showed high degree of correlation during the study period. It is also observed that as per t-statistics there is significant difference in the performance of schemes (varying from 6 to 11 years). It indicates that except these years (significant t-ratio) security returns and market returns are almost same.

**Equity Large Cap Schemes**

The findings depicts that all the schemes under equity large cap Birla Sun Life Advantage Fund Dividend Scheme, Birla sun life frontline equity fund dividend scheme, Franklin India blue chip fund dividend scheme, HDFC top 200 fund dividend scheme, JM equity scheme, Birla sun life advantage fund growth scheme, Birla sun life frontline growth scheme, Franklin India blue-chip growth scheme, JM equity fund growth scheme, Sundaram select focus – appreciation growth scheme and HDFC Top 200 Fund Growth Scheme remained risky throughout the study period and yielded higher returns as compared to market returns.

**Equity Large Cap Dividend Schemes**

The findings reveal that all the equity large cap dividend schemes remained risky in comparison to market risk during the study period except Birla sun life frontline which is less risky than market return in the year 2008-09. On the basis of the performance of the schemes it is found that all schemes outperformed the market index during the study period except 2008-09. From the Correlation analysis it is found that though correlations vary from high to moderate but are statistically significant. Further, from the significant t-ratio it is observed that the security returns are much higher than market returns during these years and insignificant t-ratio depicts that returns are nearly same.

**Equity Large Cap Growth Scheme**

From the risk analysis it is found that Birla sun life advantage fund and JM equity fund schemes yielded higher risk throughout the study period as compared to market risk, whereas Birla sun life frontline scheme was more risky during 9 years. On the basis of return earned by the scheme in comparison to market index return the result reveals that all schemes outperformed the market index during the study period except
Birla Sun Life Advantage Fund and Sundaram select focus – appreciation (underperformed in 2008-09). From the Correlation analysis it is found that all the correlations are statistically significant throughout the study period. Further significant differences have been observed between the security return and market return as reflected by t-statistics. Insignificant t-ratio indicates that returns are almost same whereas significant t-ratio means security return are much higher than market return.

B) PERFORMANCE OF MUTUAL FUND SCHEMES: APPLICATION OF EVALUATION MODELS

Sector Specific Schemes

The findings with regard to sector specific schemes reveal that as per the Sharpe, Treynor and Jensen’s Ratio (performance evaluation models) Birla new millennium dividend scheme, Franklin InfoTech dividend Scheme, ICICI FMCG dividend scheme, ICICI Tech scheme, SBI IT dividend scheme, SBI Pharma dividend scheme, Birla new millennium growth scheme, DSP Black Rock growth scheme, ICICI Technology growth scheme and SBI Pharma growth scheme outperformed the market during the study period except 2008-09 (year of economic slowdown). Further, ICICI FMCG growth scheme outperformed as per Sharpe’s ratio and underperformed in 2008-09 as per Treynor and Jensen’s ratio. Application of Sharpe and Treynor’s ration reveals that SBI FMCG dividend scheme outperformed throughout the study period except the results of Jensen’s ratio which highlights the underperformance of this scheme in the year 2008-09. Franklin InfoTech growth scheme underperformed as per Sharpe and Treynor’s ratio in the year 2007-08 and as per Jensen’s ratio in 2007-08 and 2008-09.

Sector Specific Dividend Schemes

The findings reveal that as per the Sharpe, Treynor and Jensen’s Ratio the performance of Birla new millennium, ICICI FMCG, ICICI Tech, SBI FMCG and SBI Pharma schemes were outstanding except 2008-2009. However, Franklin InfoTech and SBI IT scheme outperformed the market during the study period except 2007-08 and 2008-09. Further the result indicates that overall all schemes outperformed the market index during the study period. The market benchmark was
yielding negative returns throughout the study period showing poor performance of the market under sector specific dividend Schemes. In nutshell it is evident that dividend schemes were performing much better than market. Out of the total schemes under sector specific dividend schemes SBI Pharma ranked first as per Sharpe’s ratio, whereas as per Treynor and Jensen’s performance evaluation ratio ICICI Tech is the best scheme among all. However, Franklin InfoTech scheme was the lowest performer during the study period.

**Sector Specific Growth Schemes**

Application of performance evaluation models depicts that the performance of Birla new millennium, DSP Black Rock, ICICI Technology and SBI Pharma schemes was outstanding except in 2008-2009. However, as per Sharpe ratio ICICI FMCG growth scheme outperformed the market but the result of Treynor and Jensen’s ratio reveals that the ICICI FMCG underperformed in the year 2008-09. Further Franklin InfoTech growth scheme underperformed in 2007-08 (as per Sharpe, Treynor and Jensen’s ratio) but 2008-09 was also identified by Jensen’s measure as the year when this Franklin InfoTech also underperformed. Overall the Sector Specific Growth Schemes outperformed the market index throughout the study period. DSP Blackrock scheme was the top performer as identified by Sharpe, Treynor and Jensen’s ratio. But there is an exception to the poor performer among the schemes by the Sharpe’s ratio which identify Birla new millennium scheme as low performer whereas as per the results of Treynor and Jensen’s ratio Franklin InfoTech scheme was the lowest performer during study period.

**Multi Cap Schemes**

As per the Sharpe, Treynor and Jensen’s Ratio it was observed that the performance of Multi Cap schemes i.e. HDFC capital builder dividend scheme, HDFC equity dividend scheme, ICICI Prudential dividend scheme, ICICI Prudential growth scheme and HDFC equity growth scheme was outstanding during the study period except 2008-09 and 2010-11.
Multi Cap Dividend Schemes

Performance evaluation of multi cap dividend scheme makes it clear that there are only three schemes i.e. HDFC capital builder, HDFC equity and ICICI Prudential schemes and performances of all the schemes are outstanding except 2008-2009. Topping the list is HDFC equity fund multi cap followed by HDFC capital builder fund and ICICI prudential dividend scheme. The performance of the market index was negative throughout the study period.

Multi Cap Growth Schemes

There were two schemes under this category i.e. ICICI Prudential and HDFC equity scheme and their performance were outstanding during the study period as per the Sharpe, Treynor and Jensen’s Ratio but these schemes underperformed as compared to the benchmark index in the year 2008-09. However, overall performance of these schemes as measured by performance evaluation ratio differs in their results. The result of Sharpe’s ratio mark HDFC equity fund as top performer while Treynor and Jensen’s ratios identify ICICI Prudential multi cap fund growth scheme is better performer.

Mid Cap Schemes

The application of Sharpe, Treynor and Jensen’s ratio on mid cap dividend schemes revealed that Birla sun life mid cap dividend scheme and Franklin India prima fund mid cap dividend scheme outperformed throughout the study period (2003-16) except 2008-09, whereas the administration of performance evaluation models on growth schemes highlights that Birla sun life mid cap growth scheme, Franklin India prima fund mid cap growth scheme and Sundaram select mid cap growth scheme outperformed the market except 2008-09.

Mid Cap Dividend Schemes

Performance of Birla sun life and Franklin India prima fund, two schemes under mid cap dividend schemes it was observed that the schemes were outstanding (as per performance evaluation models) during the study period. But in the year 2008-09 and 2010-11 the fund underperformed as compared to market benchmark. Further as per Sharpe, Treynor and Jensen’s ratio Franklin India prima fund is better as compared to
Birla sun life, though both the schemes outperformed the BSE SENSEX index throughout the study period.

**Mid Cap Growth Schemes**

During the year 2008-09, the Birla sun life, Franklin India prima fund and Sundaram select scheme underperformed than the market index. The returns of the market index were negative during the study period. Application of performance evaluation model shows the same results regarding the performance of mid cap growth schemes. Sundaram Select was the top performer followed by Franklin India prima fund and Birla sun life midcap growth scheme. Overall the schemes outperformed the BSE SENSEX index throughout the study period.

**Equity Diversified Schemes**

The findings reveal that as per the Sharpe, Treynor and Jensen’s Ratio, Equity Diversified schemes i.e. Franklin India opportunities fund equity diversified dividend scheme, Franklin India prima plus fund equity diversified dividend scheme, Franklin India opportunities fund equity diversified growth scheme and Principal growth fund equity diversified growth scheme outperformed the market during the study period except 2008-09. DSP Black Rock opportunities fund - regular plan equity diversified dividend scheme underperformed in 2008-09 as per Sharpe and Treynor’s ratio but in the same year the Jensen’s ratio revealed neutral performance of the scheme. Franklin India prima plus fund equity diversified growth scheme outperformed as per Sharpe and Treynor’s ratio but the result of Jensen’s ratio showed that the scheme underperformed in 2008-09, whereas as per the Sharpe, Treynor and Jensen’s Ratio, JM Basic fund equity diversified growth scheme underperformed in 2003-04, 2008-09 and 2010-11.

**Equity Diversified Dividend Schemes**

The application of Sharpe, Treynor and Jensen’s ratio on DSP Black Rock opportunities fund - regular plan reveals the scheme has offered higher returns as compared to benchmark returns during study period except 2008-09 and 2012-13 although the performance of scheme was neutral as compared to market in the year 2008-2009 as per Treynor’s ratio. The results also highlights that the performance of
Franklin India opportunities fund and Franklin India prima plus fund performance was outstanding during the study period except 2008-09. All the three schemes outperformed the market. Application of performance evaluation ratios also shows that Franklin India opportunities fund is the best performer among three and Franklin India prima plus fund as lowest yielding fund during the study period (2003-16).

**Equity Diversified Growth Schemes**

The findings of the present study make it clear that the performance of Franklin India opportunities fund and Principal growth fund was outstanding during the study period except 2008-09. The Franklin India prima plus and ICICI Prudential dynamic plan offered higher returns as compared to benchmark returns during the study period (as per Sharpe and Treynor’s ratio). As per Jensen’s ratio these schemes also outperformed except one year (2008-09) of underperformance. JM Basic fund underperformed for three years. The comparative analysis of the performance among the equity diversified growth schemes indicates that Franklin India prima plus fund was the best performer and JM Basic fund was the low performer fund among all the five schemes under equity diversified growth schemes.

**Balanced Fund Schemes**

The result depicts that balanced fund dividend schemes i.e. Birla sun life dynamic asset allocation dividend scheme outperformed the market index except 2008-09 (as per Jensen’s ratio) and 2012-13 (as per Sharpe, Treynor and Jensen’s ratio), DSP Black Rock balanced fund dividend scheme outperformed the market index in all the years except 2008-09 (as per Jensen’s ratio), whereas, Escorts balanced fund dividend scheme underperformed in 2004-05 and 2008-09 (as per all the three performance measures) and performed poor in 2010-11(Jensen’s Ratio) and underperformed in 2012-13 as per Treynor and Jensen’s ratio, JM Balanced fund dividend scheme outperformed the market index except in 2004-05 (as per Treynor and Jensen’s Ratio) 2008-09 and 2014-15. The LIC MF balanced fund dividend scheme underperformed in 2006-07 and 2008-09 (as per Jensen’s ratio) and Birla sun life India opportunities fund balanced fund dividend scheme outperformed the market index except 2008-09 and 2010-11(as per Jensen’s Ratio).
The administration of performance evaluation models on Balanced fund growth schemes reveals that Birla sun life balanced 95 fund growth scheme, Birla Sun Life Dynamic Asset Allocation Balanced Fund, DSP Black Rock balanced fund, HDFC prudence fund balanced fund, and LIC MF balanced fund outperformed the market index as per Sharpe and Treynor’s ratio throughout the study period. As per Jensen’s ratio also these schemes outperformed except in 2008-09. JM balanced fund growth scheme underperformed in 2003-04 and 2008-09. It may be inferred that as compared to Balanced fund dividend schemes, the growth schemes performed much better during 2003-2016.

**Balanced Fund Dividend Schemes**

Here the performance of all balanced fund dividend schemes varying as per performance evaluation models. Starting from the Birla Sun Life Dynamic Asset Allocation, the fund performance was outstanding during the study period except 2012-13 (as per Sharpe). Application of Jensen’s ratio reveals that security outperformed except 2008-09 and 2012-13. Moving to DSP Black Rock, the security outperformed during the study period. Application of Jensen’s ratio also shows the negative value of alpha in 2008-09 indicating the underperformance of security. Third fund in the line is Escorts Balanced fund showing underperformance as per Sharpe, treynor and Jensen ratio in the year 2004-05 and 2008-09. 2010-11 was the year of underperformance as indicated by Jensen’s ratio and 2012-13 was another year when the fund was performing poor as compared to the market index. JM Balanced fund outperformed the market except 2008-09 and 2014-15, whereas Treynor and Jensen’s ratio result identified underperformance of fund in 2004-05. As per Sharpe, Treynor and Jensen’s ratio LIC MF scheme outperformed during the study period except 2006-07 and 2008-09 as per Jensen’s ratio. Birla sun life India opportunities performed good except 2008-09 and 2010-11 (as per Jensen’s ratio). The findings also highlights that as per Sharpe’s ratio the top performer fund is Birla sun life India opportunities fund and as per Treynor and Jensen’s ratio Birla sun life dynamic asset allocation fund is identified as the best performing fund. With regard to low performer among all six schemes the results of all the measures are same indicating thereby that JM Balanced fund dividend scheme is the lowest performer. It was also observed that
all schemes under Balance fund dividend scheme outperformed the market during study period.

**Balanced Fund Growth Scheme**

The performance of Birla sun life balanced 95 fund, DSP Black Rock, HDFC Prudence fund and LIC MF were outstanding during the study period. However, as per Jensen’s ratio the scheme underperformed in 2008-09 when scheme was having the negative alpha value. Birla sun life dynamic asset allocation scheme offered higher returns as compared to benchmark returns during the study period except in the year 2008-09 as per Sharpe and Jensen’s ratio. The performance of JM Balanced fund was outstanding during the study period except 2003-04 and 2008-09. Overall, the application of Sharpe, Treynor and Jensen’s ratio makes it clear that though all the schemes outperformed the market but HDFC Prudence was the best performer and JM Balanced fund scheme was the lowest performer among the entire balanced fund growth schemes. Birla sun life balanced 95 fund was the second best performer scheme.

**Equity Large Cap Schemes**

The application of Sharpe, Treynor and Jensen’s ratio on Equity Large Cap schemes revealed that Birla sun life advantage fund equity large cap dividend scheme, Birla sun life frontline equity fund dividend scheme, Franklin India blue chip fund dividend scheme, HDFC top 200 fund dividend scheme, JM equity fund dividend scheme, Birla sun life advantage fund growth scheme, JM equity fund growth scheme and Sundaram select focus – appreciation scheme outperformed the market during the study period 2003-16, whereas Birla sun life frontline equity large cap growth scheme outperformed as per Sharpe and Treynor’s ratio but underperformed in 2008-09 as per Jensen’s ratio. Franklin India blue-chip growth scheme and HDFC top 200 fund growth scheme outperformed throughout the study period as per the performance evaluation models.

**Equity Large Cap Dividend Schemes**

The analysis of equity large cap dividend schemes highlights all the schemes i.e. Birla sun life advantage fund, Birla sun life frontline, Franklin India blue chip fund, HDFC
top 200 fund and JM equity fund security outperformed during the study period with
the exception of year 2008-09. The application of Sharpe’s performance measure
identified two schemes namely Birla sun life advantage fund and HDFC top 200 fund
as the best performer. The result of Treynor and Jensen’s ratio identified Birla sun life
advantage fund as the top performer among schemes. The results of all the
performance measure also indicate that Birla sun life frontline equity fund is the
lowest performing scheme. However, overall the schemes under this category
outperformed the market.

**Equity Large Cap Growth Scheme**

The study revealed that Birla sun life advantage fund, JM equity fund and Sundaram
select focus – appreciation fund showed outstanding performance except 2008-09.
Birla sun life frontline equity fund performance was outstanding during the study
period as per Sharpe and Treynor’s ratio but by administering Jensen’s ratio to
identify the performance of Birla sun life frontline the result indicates that the
performance of security was superior except 2008-09. Further performance of Franklin
India Blue-chip and HDFC top 200 fund were outstanding during the study period.
The Sharpe, Treynor and Jensen’s performance measures ranked HDFC top 200 fund
equity large cap growth scheme as top performer and JM equity large cap growth
scheme as lowest performer. Hence on the basis of the above findings it can be
concluded that all the schemes of the equity large cap growth schemes performed very
well during the study period.

**C) STATUS OF COMPARATIVE PERFORMANCE OF SELECTED SCHEMES**

**Dividend Schemes**

All dividend schemes pertaining to six different category i.e. equity large cap,
balanced fund, sector specific fund, mid cap fund, multi cap fund and equity
diversified fund outperformed the market during the study period. It is found that SBI
Pharma sector specific dividend scheme was the top performer followed by SBI
FMCG sector specific dividend scheme. The least performer was JM Balanced fund
dividend scheme according to all the three performance models (Sharpe, Treynor and
Jensen’s ratio).
Growth Schemes

Based on the findings of the present study it is observed that the performance of all the growth schemes were outstanding during the study period. Topping among all the schemes is Sundaram select mid cap growth scheme which is identified by all the three performance measures at the top during the study period. These schemes though outperformed the market, but the performance ranking given to these growth schemes differs as per Sharpe’s ratio with regard to the lowest performing fund. While identifying lowest performer the results of Sharpe and Jensen are similar as JM Basic fund equity diversified growth scheme the least performer among all available growth schemes, whereas Treynor’s ratio indicate JM Balanced Fund growth scheme as poor performer. With regard to another best performer the results of the Sharpe and Treynor are similar showing Birla sun life midcap growth scheme as the second best performer but the Jensen’s ratio pinpoints Franklin India Blue-chip equity large cap growth scheme and Birla sun life advantage fund equity large cap growth scheme are two schemes as second best performer.

A Comparison of Dividend Schemes (Category Wise)

The result reveals that all categories i.e. equity Large Cap, balanced fund, sector specific fund, mid cap fund, multi cap fund and equity diversified fund of mutual fund schemes outperformed the market during the study period. As it is always an area of keen interest of the investor to identify the best performer among the available category of schemes, it is found that sector specific dividend scheme was the top performer followed by mid cap dividend scheme and multi cap dividend schemes. The last performer was Balanced Fund dividend schemes according to Sharpe’s performance measure models. The result of Treynor’s ratio depicts that although the best performer category was sector specific dividend scheme but for 2nd and 3rd performer the results were different from the Sharpe’s ratio. Multi cap dividend schemes and equity large cap dividend category jointly hold the second position for performance, whereas, equity diversified dividend category was at 3rd position. The balanced fund schemes remained the poor among all categories under study. According to Jensen’s ratio, sector specific category was ranked at first followed by equity diversified dividend and multi cap dividend category and Balanced fund
category was at last rank. Overall the performance of all category dividend schemes was better than the market.

**A Comparison of Growth Schemes (Category Wise)**

The findings of the study highlight that as per Sharpe, Treynor and Jensen’s ratio the Mid Cap growth schemes was the top performer category throughout the study period. But there is exception to the second and third performer among the category by the Sharpe’s ratio which identify multi cap Growth Scheme category as 2nd performer and sector specific growth category as 3rd performer whereas as per the results of Treynor and Jensen’s ratio equity large cap growth scheme category was 2nd best performer. Balanced fund growth category was the lowest performer among the all category growth schemes during the study period.

**An Overall Comparison of Mutual Fund Schemes (Category Wise)**

The result highlights comparative performance of all the six different categories of mutual funds i.e. equity large cap, balanced fund, sector specific fund, mid cap fund, multi cap fund and equity diversified funds. For the ease of decision making it can be inferred that as per Sharpe and Treynor’s ratio the top performer category is sector specific scheme followed by mid cap fund category and multi cap category. As per Treynor’s performance evaluation ratio equity large cap category was also ranked 3rd. As per Jensen’s measure the results are different for 2nd and 3rd performer i.e. equity large cap category got 2nd position and mid cap category get 3rd position. The poor performer as per all the three measure of performance was identified as balanced fund. Overall all categories, irrespective of dividend and growth, of mutual funds outperformed the market during the study period.

**RECOMMENDATIONS**

On the basis of the findings, the following recommendations have been made for the investors to avail the opportunities of returns under mutual fund schemes:

- The detailed analysis of the performance of mutual funds indicates that mutual fund schemes have outperformed the market index during the study period meaning thereby that the return of the mutual fund schemes were much better than the market index return. So, the investors may decide about mutual fund options as investment avenues.
The results have immense implications for the investors in formulating the investment decision. The risk associated with earning the return in mutual fund scheme is higher than market risk. So, the investors should make their investment decision in the light of the fact that higher risk leads to higher return in most of the cases especially mutual funds which are professionally managed and highly diversified.

The results of the study may also be used by the investors to decide upon the timing ability and scheme selectivity while investing in mutual funds. If the investors are not well conversant with the market and the mutual fund schemes, then the services of a good portfolio manager may be taken by the investor.

The analysis of performance of mutual fund schemes indicates that in the events such as economic recession or poor economic performance, global economic depression, political, economic and policy changes which are the reason for systematic risk may mark the reason of mutual fund underperformance. The empirical evidence also reveals that there were most of the schemes which underperformed during the period of economic slowdown (2008-09). So, the results of these findings may be used by the investor and fund manager to decide the category of mutual funds and the timing of investment if the investor is small and the time period of investment is also small.

The result of the study may be used by the asset management companies (AMC) to attract the savings of the investors to broaden their earning base as the investors will only approach when they feel that due to the expertise and ability of the fund managers they can get better return as compared to direct investment i.e. without expert advice and experience.

Based on the findings of the present study it is observed that the return of the mutual fund and market index are having high to low degree of correlation during the study period, thus, the study may be helpful to fund managers to get better return in deciding about the combination of schemes for investment.
Franklin India Blue-chip and of HDFC Top 200 Fund Equity Large Cap Growth Scheme outperformed throughout the study period instead of the major market shocks. Such schemes may be identified as “shock proof” schemes. Thus, it may be considered as a good and reliable mutual fund scheme option for investment.

Based on the findings, the Sector Specific Dividend Scheme may be chosen for investment due to their best performance followed by mid cap and multi cap dividend schemes. The performance track record of dividend schemes based on historical data of thirteen years is good enough to be used as an authentic source of information to take investment decision.

The findings may also prove to be beneficial for the potential investors (Mutual Fund) who are searching for growth schemes as the findings reveals that Mid Cap Fund is the top performing category followed by Multi Cap Growth Schemes although posing higher risk but also yielding higher returns as compared to market index risk and returns.

The present findings are helpful for the potential investor with regard to the choice of mutual fund category as the findings reveals that the top performer category is Sector Specific Scheme followed by mid cap fund category and multi cap category. This suggestive measure will help the investors when their investable funds are limited and they have good risk appetite to earn good returns.

Findings of the present study offer immense implication for banking sector to decide upon their investment strategy for the increased cash flow (due to Demonetization) because Mutual Funds are proven instrument to generate good tax efficient return in long term. In return such huge investment by banking sector will benefit the mutual fund industry and investors as a whole.

The obtained findings reveal that a part of the performance of a mutual fund resides in the manager, who is responsible for the investment decisions, and a part resides in the fund organization, which can influence performance through administrative procedures, execution efficiency, quality of the analysts, relationships with companies, etc. There is even the notion of “star
managers” who have reputations for stock-picking skills. Therefore investors should try to make investment in mutual funds through these star managers.

- There is increase in the participation of mutual fund organizations in financial inclusiveness and they are promoting investment habit among the investors. At present, there are 44 Asset Management Companies (AMCs) comprising the mutual fund industry. Therefore already existing Asset Management Companies (AMCs) and the new players thinking to come into the market should consider the findings of the study and take a rationale decision keeping in mind the sole objective of maximization of the unit holder’s wealth and safeguard their interest. The present and prospective investors should also look upon the results of the present study while formulating their investment strategy so as to reap the maximum benefits.

**FUTURE AREA OF RESEARCH**

There is always a scope for further research in any area. So based on the findings of the present research the following may be future areas of research:

- The present study has covered six categories of mutual funds relating to equity i.e. Equity large cap, Multi cap, Midcap, Sector specific, Equity diversified and Balanced schemes. A similar type of the study can be conducted to know the performance of debt fund schemes.

- A study can also be carried out to make a comparison between the performance of equity funds and debt fund scheme.

- The present study is based on secondary data. The scope can be widened by collecting primary data about the investor’s perception regarding choice of mutual fund as an option of investment.

- The performance of innovative mutual fund schemes which are coming in the market in recent past can also be studied.

- The impact of fund manager’s ability on the performance of mutual fund schemes can be another area of research.

- BSE SENSEX has been taken as only indices for the comparison other indices such as NSE, S&P, etc. may be taken as base of comparison.