



## RISK RETURN ANALYSIS OF SELECTED MID CAP MUTUAL FUND SCHEMES IN INDIA

**Dr. Rashmi Chaudhary**

*Assistant Professor, Department of Commerce, Kurukshetra University, Kurukshetra, Haryana, India*

### ABSTRACT

#### KEYWORDS:

*Net Asset Value (NAV), Systematic Risk, Unsystematic Risk, Correlation*

*The Midcap funds provide the investors with a huge opportunity to seek fast growth in their investments using these funds. The present research article is an attempt to evaluate the performance of selected mid cap mutual fund schemes in India for the study period 2003 to 2016. The risk return analysis reveals that all selected schemes performed better than the benchmark return during the study period. The average performance of sample schemes was also outstanding throughout the study period.*

### INTRODUCTION

Growth and developments of various mutual funds products in the Indian capital market has proved to be one of the most catalytic instruments in generating momentous investment growth in the capital market. In this context, close monitoring and evaluation of mutual funds has become essential. One of the main advantages of mutual funds is that these funds provide access to professionally managed, diversified portfolios of equities, bonds, and other securities, which would be quite difficult (if not impossible) to create with a small amount of capital. Each shareholder participates proportionally in the gain or loss of the fund. A mutual fund's portfolio is structured and maintained to match the investment objectives stated in its prospectus.

This paper is specifically evaluating the performance of Midcap mutual fund schemes on the basis of risk and return analysis. Midcap mutual fund schemes may be badly hit in the recent stock market turmoil. However, nobody doubts midcap schemes potential to make investors rich over a long period. That explains why mutual fund advisors continue to recommend these schemes to investors with high risk appetite and longer investment period. Midcap mutual funds invest in emerging and growing midcap companies in India. These midcap mutual funds have potential to provide higher returns compared to large cap funds. These are high risk compared to large cap or diversified mutual funds.

### REVIEW OF LITERATURE

Review of literature is a brief description about mutual funds research work conducted in India as well as in abroad. Some of these studies have been reviewed to identify the research gap and justification for the present study. **Elango (2004)** stated that private funds have a high positive association between the past and current year NAV as compared to public sector. The private sector schemes outperformed public sector in terms of NAV range value,

innovative products and in the deployment of funds. Public sector funds showed low volatility as against greater variability for private sector indicating low consistency. The 't- test' result indicated the existence of a highly significant difference between the mean NAV of private sector funds and public sector with a high statistical significance. **Pawar and Madhumati (2006)** identified the differences in characteristics of public sector sponsored mutual funds and the extent of diversification in these funds. The study period was taken for 3 years from May 2002 to May 2005 with a sample size of 18 mutual fund schemes (6 public sector sponsored and 12 private sectors including 6 foreign sponsored MF) operating in India. The two market benchmark namely S&P CNX NIFTY and CRISIL. Balanced fund index were used along with Treasury bill (91 days) for risk-free rate of return. It was found that public sector sponsored funds don't differ significantly from private sector sponsored funds in terms of mean return percentage and a significant difference existed between these funds in terms of average standard deviation, average variance and the average coefficient of variation (Cov.). Further, there was a statistical difference between sponsorship classes in terms of e SDAR (excess standard deviation adjusted returns) and R.V. (residual variance used as a measure of mutual fund portfolio diversification). Residual Variance was not linearly related to investment performance in terms of Jensen's alpha and portfolio beta regardless of the benchmark index used. **Rao (2006)** classified the open-ended equity mutual fund schemes into different investment style to ascertain whether the differences in their performance are statistically significant or not. The study was conducted during 1<sup>st</sup> April 2005–31<sup>st</sup> March 2006 by taking the sample of 21 open ended equity growth plans and 21 open-ended equity dividend plans. BSE 100 National Index Value was chosen as the proxy for market return & 364-day T-Bill as surrogate measures of risk-free return. The study indicated that most of the growth plans (80% approximate)

were better than dividend plans in terms of superior returns and less risk as compared to dividend plans. It was also found that only 4 growth plans and one dividend plan were able to generate higher returns than that of the market which was contrary to general opinion prevailing in the Indian market and put a question mark on the stock selection and timing abilities of the Indian fund managers. When exposed to the bullish stock market, the Sharpe ratio indicated that growth plans are more likely to reward the investors for the extra risk they assume. Further, the study also found the significant difference in the performance of growth and dividend plans. **Khare (2007)** opined that investors could purchase stocks or bonds with much lower trading costs through mutual funds and enjoy the advantages of diversification and lower risk. The researcher identified that, with the higher savings rate of 23 percent, channeling savings into mutual funds sector has been growing rapidly as retail. **Bhuvanewari and Selvam (2011)** evaluated the performance of 12 mutual fund companies in different categories for a period of 6 years (1<sup>st</sup> Jan. 2002 to 31<sup>st</sup> Dec. 2007). They attempted to study the risk and return relations of open-ended equity funds using daily NAV returns, daily market returns and linear regression. It was found that only two sample schemes namely, principal child benefit fund (Super- saver)- Dividend and ING Vysya select stock fund-dividend under dividend option were significantly related to their market risk and return. During the study period, the 6 alpha values indicated that the majority of the sample scheme's excess returns were not significantly different from their market return and more than 50% of the sample schemes under dividend option performed better than their respective benchmark. **Mansor and Bhatti (2011)** in their study "Risk and Return Analysis on Performance of the Islamic mutual funds: Evidence from Malaysia" used monthly aggregate returns to evaluate the performance of the mutual funds for the Islamic and Conventional portfolios in Malaysia, from 1996 to 2009. The evidence from aggregate returns of the 128 Islamic mutual funds and 350 conventional mutual funds, consists of 160 observations denoted that both portfolios have performed better than the market portfolio within the period. However, the result had shown on average the Islamic Equity provides slightly fewer returns relative to the conventional counterparts. The result revealed a statistically significant difference between the standard deviation of the portfolios indicating thereby that the Islamic portfolio is riskier than the conventional portfolio. Further, it was also revealed that both Islamic and conventional portfolios were depended on the market portfolio of which the former portfolio was closely mirrored to the market movement were the latter portfolio. **Sharma and Kumar (2013)** analyzed the performance of equity based mutual funds choosing 15 schemes offered by 2 private sector companies and the public sector companies for a period of 15 years (April 1999 to April 2013). The analysis was based on risk-return relationship and CAPM. SENSEX was taken as Benchmark to calculate the risk. It was found that over the period of 15 years, the private sector mutual funds companies have outperformed than the public sector and were less risky. Reliance and Kotak mutual fund industries have been the best performer than the UTI and SBI mutual fund industries.

## RESEARCH METHODOLOGY

Research methodology explains the path to be followed to peruse the research proposal to attain the objectives of the study. The present study is dedicated to present risk return analysis of selected mid cap mutual fund schemes in India with the help of published data.

## NEED OF THE STUDY

The investment decision always focuses on safety of capital and better return. Various investment options carry different level of risks. In this paper an attempt has been made to evaluate the mid cap fund's performance on various parameters using tools of risk and return analysis.

## OBJECTIVES OF THE STUDY

For risk return analysis of mutual fund schemes in India, the following are the main objectives of the present study:

- To explore the risk return analysis of selected mid cap mutual fund schemes.
- To present a comparative performance status of selected mutual fund schemes in India.

## DATA SOURCES AND ANALYSIS

Published data for the study variables (mutual funds, stock prices) is obtained from SEBI Data Base, NSE, RBI, BSE Publications and Reports of SEBI. The analysis is carried out with the help of descriptive statistics (Mean and Standard Deviation), Correlation and Inferential t-statistic. BSE SENSEX has been taken as the benchmark index.

## SCOPE OF THE STUDY

• The present study comprises of five Mid Cap Schemes including two dividend and three growth schemes. The schemes are Birla Sun Life Mid Cap Dividend Scheme, Franklin India Prima Fund Mid Cap Dividend Scheme, Birla Sun Life Mid Cap Growth Scheme, Franklin India Prima Fund Mid Cap Growth Scheme and Sundaram Select Mid Cap Growth Scheme. The sample is selected for thirteen years from April 2003 to March 2016 based on daily data. The basis for this selection is the availability and consistency of the data during the study period. This is done for bringing out meaningful and comparable results.

## TECHNIQUES OF ANALYSIS

**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. The 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.

$$R_p = \frac{NAV_t - NAV_{t-1}}{NAV_{t-1}}$$

$R_p$  = Return on a scheme

$NAV_t$  = Net Asset Value on first date of current quarter.

$NAV_{t-1}$  = Net Asset Value on first date of previous quarter

For comparison of returns with benchmark indices BSE SENSEX have been taken and their return has been calculated as follows.

$$R_m = \frac{\text{Value of Index at Start of current day} - \text{Value of Index at start of previous day}}{\text{Value of Index at start of previous day}} \times 100$$

**Measurement of Risk:** Risk is the variability in the actual returns in relation to the estimated returns. Risk may be classified as diversifiable (unsystematic) and non diversifiable (systematic).

$$\text{Total Risk} = \text{Systematic Risk} + \text{Unsystematic Risk}$$

**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 by the following formula:

$$r_i = \frac{\text{Covariance}(r_i - r_m)}{\text{Variance}(r_m)}$$

$r_i$  = Scheme return  
 $r_m$  = Market return

**Coefficient of Variation:** To analyze the consistency of growth in variables, the coefficient of variation (C.V.) has been worked out with the help of following formula.

$$\text{Coefficient of Variation (CV)} = \left[ \frac{\sigma}{\bar{X}} \right] \times 100$$

$\sigma$  = Standard Deviation Value, calculated as:  $\sigma = \sqrt{\frac{\sum(X - \bar{X})^2}{N}}$   
 $\bar{X}$  = Mean Value, calculated as:  $\sum X / N$   
 $N$  = Number of Observations

**STATISTICAL TOOLS**

For the purpose of analysis different statistical tools as required are applied on the converted data of risk and returns as discussed earlier.

The tools include descriptive statistics (Mean and Standard Deviation), Correlation and Inferential t-statistics.

**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 ( ) has been used as a measure of average deviation of daily returns from mean return of a specified year. The formulas for cal

$$\bar{X} = \frac{\sum X}{N}$$

$$\sigma = \sqrt{\frac{\sum(X - \bar{X})^2}{N}}$$

$N$  = Number of observations  
 $\Sigma$  = Sum of indicated statistics

**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. So, simple correlation is applied and calculated as:

$$r = \frac{N\sum XY - \sum X \sum Y}{\sqrt{[N\sum X^2 - (\sum X)^2][N\sum Y^2 - (\sum Y)^2]}}$$

$N$  = Number of observations  
 $X$  = Scheme Returns  
 $Y$  = Market Returns  
 $\Sigma$  = Sum of indicated statistics

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

$$t = \frac{\sum d}{\sqrt{N(\sum d^2) - (\sum d)^2} / \sqrt{N-1}}$$

$N$  = Number of observations  
 $d$  = mean difference between of scheme return and market return  
 $\Sigma$  = Sum of indicated statistics

The following abbreviations are used in the analysis tables:

- $\mu_i$  Mean Return of Scheme
- $i$  Standard Deviation of Scheme
- $\mu_m$  Index Return
- $m$  Standard Deviation of Index Return
- $\&''$  Correlation Beta
- M. D. Mean Difference (Mean Return – Index Return)
- DF Degree of Freedom
- t- Statistics T- Value
- Sig. Significance Level
- O Stands for outperformed Security
- U Stands for underperformed Security
- N Stands for neutral Security

**RISK RETURN ANALYSIS OF MID CAP SCHEMES**

**BIRLA SUN LIFE DIVIDEND SCHEME**

The table 1 shows the risk and return analysis of Birla Sun Life Mid Cap Dividend Scheme in comparison to BSE SENSEX Index Return.

**Table 1**  
**Birla Sun Life Dividend Scheme: Risk and Return Analysis**

Year	$\mu_i$	$\sigma_i$	$\mu_m$	$\sigma_m$	Trend	r	Degree of r	DF	t-Statistics
2003-04	0.120	2.525	0.066	1.294	O	0.279*	L	247	0.339
2004-05	0.113	1.390	-0.034	1.403	O	0.652*	M	245	1.977*
2005-06	0.206	1.197	0.090	0.964	O	0.513*	L	240	1.652
2006-07	-0.022	1.905	-0.083	1.534	O	0.655*	M	237	0.640
2007-08	0.077	2.181	-0.115	1.607	O	0.651*	M	238	1.784
2008-09	-0.276	2.103	-0.153	2.365	U	0.657*	M	237	-1.018
2009-10	0.332	2.214	0.084	1.510	O	0.477*	L	237	1.918
2010-11	-0.056	1.191	-0.038	1.043	U	0.651*	M	248	-0.288
2011-12	0.001	1.004	-0.194	1.090	O	0.720*	M	237	3.815*
2012-13	-0.017	0.885	-0.042	0.727	O	0.578*	M	228	0.517
2013-14	0.039	1.016	-0.050	0.933	O	0.473*	L	227	1.343
2014-15	0.201	1.289	-0.107	0.774	O	0.486*	L	219	4.018*
2015-16	-0.052	1.370	-0.177	0.938	O	0.685*	M	237	1.931
Average	0.051	1.656	-0.057	1.321	O	0.554*	L	3089	4.173

Note: \* 5 per cent level of significance

The above table highlights that the security generated positive returns for 8 years. The highest return (0.332) was in 2009-10 and the highest variability (2.525) was recorded in the year 2003-04. The index return remained negative for 10 years. In comparison to the market risk the scheme risk was higher during the study period except 2004-05 and 2011-12. Further, it is found that all the correlations between security return and market return are statistically significant at 5 per cent significance level. Out of the total correlations, eight correlations were moderate. Table also makes it clear that as per t- statistics there is significant difference between scheme

returns and market returns for 3 years. It means security returns during these years were comparatively higher than market returns while remaining 10 years were of almost same returns. Overall, Birla Sun Life midcap dividend scheme outperformed the market during study period except 2008-09 and 2010-11.

### **FRANKLIN INDIA PRIMA FUND DIVIDEND SCHEME**

The table 2 exhibits the risk and return analysis of Franklin India Prima Fund Mid Cap dividend Scheme in comparison to BSE SENSEX Index Return.

**Table 2**  
**Franklin India Prima Fund Dividend Scheme: Risk and Return Analysis**

Year	$\mu_i$	$\sigma_i$	$\mu_m$	$\sigma_m$	Trend	r	Degree of r	DF	t-Statistics
2003-04	0.298	1.836	0.066	1.294	O	0.435*	L	247	2.119*
2004-05	0.153	1.529	-0.034	1.403	O	0.731*	M	245	2.707*
2005-06	0.184	1.139	0.090	0.964	O	0.519*	L	240	1.400
2006-07	-0.059	1.879	-0.083	1.534	O	0.701*	M	237	0.267
2007-08	0.022	1.893	-0.115	1.607	O	0.613*	M	238	1.360
2008-09	-0.296	2.247	-0.153	2.365	U	0.661*	M	237	-1.156
2009-10	0.305	2.066	0.084	1.510	O	0.460*	L	237	1.781
2010-11	-0.045	1.400	-0.038	1.043	U	0.501*	L	248	-0.082
2011-12	-0.052	1.362	-0.194	1.090	O	0.584*	L	237	1.909
2012-13	0.006	0.998	-0.042	0.727	O	0.430*	L	228	0.765
2013-14	0.053	1.364	-0.050	0.933	O	0.359*	L	227	1.150
2014-15	0.207	1.089	-0.107	0.774	O	0.552*	L	219	5.034*
2015-16	-0.044	1.164	-0.177	0.938	O	0.674*	M	237	2.359*
Average	0.057	1.595	-0.057	1.321	O	0.575*	L	3089	4.622*

Note: \* 5 per cent level of significance

The table reveals that the index return was negative for 10 years and the security returns were negative only for 5 years. It is also observed that the security risk remained high during the study period except 2008-09, the year of economic slowdown. The analysis further highlights that the highest correlation (0.731) exists between the security return and index return during 2004-05. During eight years security returns and market index return showed low correlations. Table 2 also highlights that the difference between security return and index return was statistically significant during 4 years (significant t- statistics) indicating thereby that during these

years the security return were higher than the market returns. For remaining nine years the security returns and market index return were almost same. To sum up, Franklin India Prima Fund Mid Cap dividend Scheme performed better than the Benchmark index during the study period except 2008-09.

### **COMPARATIVE STATUS OF MID CAP DIVIDEND SCHEMES**

The table 3 indicates the risk and return analysis of mid cap fund dividend schemes in comparison to BSE SENSEX Index Return.

**Table 3**  
**Comparative Performance of Mid Cap Dividend Schemes**

Sr. No.	Scheme Name	$\mu$	$\sigma$	$\mu_m$	$\sigma_m$	Trend	r	t-Statistics
1	Birla Sun Life Fund Dividend Scheme	0.051	1.656	-0.057	1.321	O	0.554*	4.173
2	Franklin India Prima Fund Dividend Scheme	0.057	1.595	-0.057	1.321	O	0.575*	4.622

Note: \* 5 per cent level of significance

The table summarizes that under the mid cap dividend schemes risk remained high in comparison to market risk during the study period in both the schemes. As far as the performance of the schemes (return earned by the scheme in comparison of market index return) is concerned the result reveals that both schemes outperformed the market index during the study period. However, Franklin India Prima Fund performed better than Birla Sun Life scheme during the study

period. Further Correlation analysis depicts that all the correlations are statistically significant throughout the study period. It is also observed that statistically there is insignificant difference in the performance of schemes as reflected by t-statistics.

#### **BIRLA SUN LIFE GROWTH SCHEME**

The table given below depicts the risk and return analysis of Birla Sun Life Mid Cap Growth Scheme in comparison to BSE SENSEX Index Return.

**Table 4**  
**Birla Sun Life Growth Scheme: Risk and Return Analysis**

Year	$\mu$	$\sigma$	$\mu_m$	$\sigma_m$	Trend	r	Degree of r	DF	t-Statistics
2003-04	0.319	1.260	0.057	1.290	O	.651*	M	246	3.854*
2004-05	0.181	1.186	-0.034	1.403	O	.773*	M	245	3.764*
2005-06	0.242	1.080	0.090	0.964	O	.669*	M	240	2.809*
2006-07	0.035	1.748	-0.091	1.532	O	.747*	M	236	1.636
2007-08	0.138	2.006	-0.108	1.603	O	.703*	M	240	2.650*
2008-09	-0.237	1.856	-0.167	2.360	U	.706*	M	239	-0.642
2009-10	0.401	2.109	0.084	1.510	O	.520*	L	237	2.644*
2010-11	0.001	1.005	-0.041	1.044	O	.776*	M	247	0.956
2011-12	0.001	1.004	-0.194	1.090	O	.720*	M	237	3.815*
2012-13	0.017	0.744	-0.045	0.733	O	.644*	M	223	1.483
2013-14	0.076	0.896	-0.055	0.939	O	.515*	M	216	2.129*
2014-15	0.250	1.113	-0.113	0.780	O	.534*	M	211	5.501*
2015-16	-0.007	1.243	-0.174	0.923	O	.734*	M	216	2.908*
Average	0.110	1.408	-0.059	1.326	O	.662*	M	3045	8.254*

Note: \* 5 per cent level of significance

It is observed that during the study period the security returns outperformed the market except 2008-09. This year was identified as the year of economic slowdown. The security offered highest return (0.401) and the highest variability (2.109) in 2009-10. The security risk remained high for 8 years whereas market risk remained high for 5 years. Table 4 also highlights the correlations between security return and index return was statistically significant during the study period and the degree of correlation varies from moderate (12 years) to low (1 year). Further, the values of t-statistics expressed that there is significant differences between security

return and market return indicating thereby that during nine years the security return were high as compared to market return. However, during remaining four years statistically insignificant difference between security return and market return were observed i.e. both are yielding almost same return.

#### **FRANKLIN INDIA PRIMA FUND GROWTH SCHEME**

The following table highlights the risk and return analysis of Franklin India Prima Fund Mid Cap Growth Scheme in comparison to BSE SENSEX Index Return.

**Table 5**  
**Franklin India Prima Fund Growth Scheme: Risk and Return Analysis**

Year	$\mu$	$\sigma$	$\mu_m$	$\sigma_m$	Trend	r	Degree of r	DF	t-Statistics
2003-04	0.394	1.424	0.057	1.290	O	0.641*	M	246	4.569*
2004-05	0.194	1.424	-0.034	1.403	O	0.785*	H	245	3.847*
2005-06	0.228	0.904	0.090	0.964	O	0.704*	M	240	2.969*
2006-07	-0.009	1.678	-0.091	1.532	O	0.740*	M	236	1.091
2007-08	0.060	1.797	-0.108	1.603	O	0.647*	M	240	1.818
2008-09	-0.242	1.962	-0.167	2.360	U	0.705*	M	239	-0.685
2009-10	0.371	1.840	0.084	1.510	O	0.579*	L	237	2.825*
2010-11	0.022	1.018	-0.041	1.044	O	0.751*	M	247	1.366
2011-12	0.007	0.912	-0.194	1.090	O	0.743*	M	237	4.216*
2012-13	0.057	0.651	-0.045	0.733	O	0.575*	L	223	2.378*
2013-14	0.118	0.925	-0.055	0.939	O	0.558*	L	216	2.905*
2014-15	0.254	0.952	-0.113	0.780	O	0.625*	M	211	6.969*
2015-16	-0.005	1.082	-0.174	0.923	O	0.744*	M	216	3.391*
Average	0.112	1.358	-0.059	1.326	O	0.677*	M	3045	8.754*

Note: \* 5 per cent level of significance

During the study period the security returns were positive for 10 years and outperformed the market in all the years except 2008-09 i.e. the year of economic slowdown. The highest return (0.394) was in 2003-04 and the highest variability (1.840) was recorded in the year 2009-10. The index return marked positive returns only for 3 years. The security risk was higher during seven years as compared to the market risk. The results of Correlation analysis reveals that the correlations between security return and market return were statistically significant during the study period. The degree of correlations varies from high to moderate. Further significant t-ratios reveal that there is significant difference

between security return and market return during 9 years wherein scheme yielded higher return than market return. However, insignificant t-ratio indicates that statistically there is no significant difference between security return and market return. Overall, Franklin India Prima Fund Mid Cap Growth Scheme performed much better than the BSE SENSEX during the study period.

### SUNDARAM SELECT GROWTH SCHEME

The table given below indicates the risk and return analysis of Sundaram Select Mid Cap Growth Scheme in comparison to BSE SENSEX Index Return.

**Table 6**  
Sundaram Select Growth Scheme: Risk and Return Analysis

Year	$\mu_i$	$\sigma_i$	$\mu_m$	$\sigma_m$	Trend	r	Degree of r	DF	t-Statistics
2003-04	0.352	1.445	0.057	1.290	O	0.619*	M	246	3.853*
2004-05	0.213	1.332	-0.034	1.403	O	0.766*	M	245	4.139*
2005-06	0.292	0.924	0.090	0.964	O	0.693*	M	240	4.216*
2006-07	0.065	1.337	-0.091	1.532	O	0.700*	M	236	2.137*
2007-08	0.086	2.032	-0.108	1.603	O	0.672*	M	240	1.978*
2008-09	-0.226	1.892	-0.167	2.360	U	0.706*	M	239	-0.540
2009-10	0.389	2.109	0.084	1.510	O	0.569*	L	237	2.672*
2010-11	0.039	1.034	-0.041	1.044	O	0.727*	M	247	1.626
2011-12	0.006	1.009	-0.194	1.090	O	0.706*	M	237	3.814*
2012-13	0.029	0.781	-0.045	0.733	O	0.576*	L	223	1.590
2013-14	0.105	0.958	-0.055	0.939	O	0.548*	L	216	2.615*
2014-15	0.261	1.204	-0.113	0.780	O	0.568*	L	211	5.465*
2015-16	0.002	1.309	-0.174	0.923	O	0.720*	M	216	2.841*
Average	0.125	1.412	-0.059	1.326	O	0.653*	M	3045	8.879*

Note: \* 5 per cent level of significance

The table 6 makes it amply clear that during the study period the security outperformed the market except 2008-09. The index return during the study period is showing the negative trend. The index return (0.090) was highest in the year 2005-06 and the risk (2.360) to earn the index return was highest in the year 2008-09. The security risk remained high during seven years as compared to the market risk. Further analysis reveals that the correlations between the security return and market return were found statistically significant. The degrees of correlations were moderate during 9 years followed by low correlations (4 years). The t-value measuring

the difference between security return and index return reveals that during 10 years the difference was found statistically significant exhibiting that during these years the security returns were much higher, whereas, statistically no significant difference between the security return and market return indicates same returns during remaining three years.

### COMPARATIVE STATUS OF MID CAPGROWTH SCHEMES

The following table highlights the risk and return analysis of mid cap fund growth schemes in comparison to BSE SENSEX Index Return.

**Table 7**  
Comparative Performance of Mid Cap Growth Schemes

Sr. No.	Scheme Name	$\mu_i$	$\sigma_i$	$\mu_m$	$\sigma_m$	Trend	r	t-Statistics
1	Birla Sun Life Midcap Growth Scheme	0.110	1.408	-0.059	1.326	O	.662*	8.254*
2	Franklin India Prima Fund Mid Cap Growth Scheme	0.112	1.358	-0.059	1.326	O	0.677*	8.754*
3	Sundaram Select Mid Cap Growth Scheme	0.125	1.412	-0.059	1.326	O	0.653*	8.879*

Note: \* 5 per cent level of significance

It is evident from the table 7 that Sundaram Select schemes yielded highest risk as compared to market risk among the three mid cap growth schemes. Performance analysis reveals that all schemes outperformed the market index during the study period. Sundaram Select schemes were the top performer followed by Franklin India prima fund (2nd) and Birla sun life midcap growth scheme (3rd). Further the Correlation analysis it is found that the correlations were statistically significant throughout the study period. Further t-ratio depicts that all mid cap growth schemes yielded much higher return than market index.

### FINDINGS AND CONCLUSIONS

From the above analysis, it can be identified 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.

Investors who are looking for faster growth and high risk appetite for risks compared to those of large cap funds should invest in mid cap funds. Mid-sized companies happen to provide faster earnings and steep growth while being volatile on the stock index. Investors who are ready to live with the volatility of these stocks in expectations of fascinating returns should definitely go ahead with midcap funds.

## REFERENCES

1. Chandra, P. (2009). *Investment Analysis and Portfolio Management*. New Delhi: Tata McGraw Hill Education Private Limited.
2. Elango, R. (2004). Which fund yields more returns? *The Management Accountant*, 39(4), 283-290.
3. Khare, S.K. (2007). *Mutual Funds: A Refuge for Small Investors*. *Southern Economist*, 21-24.
4. Kevin, S. (2015). *Security analysis and portfolio management*. New Delhi: PHI Learning Pvt. Ltd.
5. Mansor, F., & Bhatti, M.I. (2011). Evidence of risk and return performance of Islamic mutual funds: The case of Malaysia. *Global Economy and Finance Journal*, 4(1), 19-31.
6. Panwar, S., & Madhumathi, R. (2006). Characteristics and performance evaluation of selected mutual funds in India. *SSRN Electronic Journal*. doi:10.2139/ssrn.876402.
7. Pandian, P. (2009). *Security analysis and portfolio management*. Vikas Publishing House Pvt. Limited.
8. Rao, D. N. (2006). *Investment styles and performance of equity mutual funds in India*. *SSRN Electronic Journal*. doi:10.2139/ssrn.922595.
9. Sadhak, H. (1997). *Mutual funds in India: Marketing strategies and investment*. Response Books.
10. Selvam, M., & Palanisamy, B. (2011). *Analysis of risk and return relationship of Indian equity (dividend) mutual fund schemes*. *SSRN electronic journal*. doi:10.2139/ssrn.1862214.
11. Sharma, S. P., & Kumar, R. (2013). "Analysis of risk and return relationship of equity based mutual fund in India. *International journal of advancements in research and technology*, 2(8), 289-295.

## Websites:

1. <http://www.mutualfundindia.com>
2. <http://www.amfiindia.com>
3. <http://www.nseindia.com>
4. <http://www.bseindia.com>
5. <http://www.economicstimes.com>
6. <http://www.valueresearchonline.com>
7. <http://www.icraonline.com>
8. <http://www.sebi.gov.in>