SMART

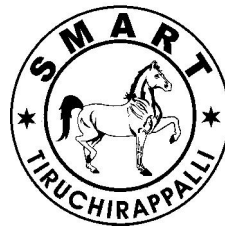## Journal of Business Management Studies

(An International Serial of Scientific Management and Advanced Research Trust)

Dr. M. SELVAM, M.Com, PhD,

Founder-Publisher and Chief Editor

PERFORMANCE EVALUATION OF MONTHLY RETURNS OF OPEN ENDED EQUITY GROWTH MUTUAL FUNDS IN INDIA

S.Vanitha

Assistant Professor, Department of Commerce and Financial Studies, Bharathidasan University, Trichirappalli-620 024, Tamil Nadu, India. E.Mail -commvani@yahoo.com.

K. Arul Mangai

M.Phil Research Scholar, Department of Commerce and Financial Studies, Bharathidasan University, Trichirappalli-620 024 Tamil Nadu, India, E.Mail- arul.krishnamurthy@gmail.com.

P. Srinivasan

Guest Lecturer in Commerce, Centre for Distance Education (CDE), Bharathidasan University, Trichirappalli-620 024, Tamil Nadu, India. E.Mail - srini24vas@gmail.com.

Abstract

In this paper, the performance evaluation of Indian Mutual Funds in a bear market is carried out through relative performance index, risk-return analysis and other measures. The data used were monthly closing NAVs, and the study period was from April 01st , 2006 to January 31st , 2010. The S&P CNX Nifty Return was considered as the Market Returns. The highly traded Equity Growth Mutual Funds brought out by these 42 Assets Management Companies were selected as the sample of 12 Equity Growth Mutual Funds. The performance evaluation of selected Mutual Funds were evaluated by Sharpe Ratio, Treynor Ratio, Jensen Measure and One-Sample t-test. The study attempts to find out whether there was significant difference between the Portfolio Returns and Market Returns. In this study, performance evaluation of monthly returns of Open Ended Equity Growth Mutual Funds in India, has been attempted.

Keywords: Mutual Funds, Performance Evaluation, Risk-Return Analysis, Monthly Returns, Market Portfolio, Portfolio Returns, Market Returns.

Introduction

The Mutual Fund Industry is a growing sector of the Indian Financial Markets. It is the major vehicle for mobilization of savings, especially from the small and household savers and these savings are invested in the capital market. The Mutual Fund Industry in India began with setting up of the Unit Trust of India (UTI) in 1964 by the Government of India. During the last 36 years, UTI has grown to be a dominant player in this industry. In 1987, the public sector banks and two insurance companies (Life Insurance Corporation and General Insurance Company) were allowed to launch Mutual Funds. The Securities Exchange Board of India (SEBI), the regulatory body for Indian Capital Market, formulated comprehensive regulatory framework for Mutual Funds in 1993 and allowed private corporate bodies to launch Mutual Fund Schemes in India.

With the influx of Foreign Investments, the Indian Capital Market has become vibrant and the Indian Mutual Funds contribute 0.18% to global net assets, 0.55% to the number of schemes at global level and still a long way to catch up with the developed world. The product life cycle of Indian Mutual Fund is in the growth stage. Investment Goals vary from person to person. While somebody wants security, other might give more preference to returns only. The Indian Mutual Fund Industry offers various schemes and serves broadly all types of investors.

The basic objective of a Mutual Fund is to provide a Diversified Portfolio so as to reduce the risk in investments at a lower cost.

The Mutual Fund Industry worldwide is based on this premise. Investors, who take up Mutual Fund Route for investments, believe that their risk is minimized at lower costs, and they get an optimum portfolio of securities that match their risk appetite. They are ignorant about the diverse techniques and hedging products that can be used for overcoming the market volatility and hence they take the help of the Fund Managers.

Benchmark Index - S&P Cnx Nifty

The S&P CNX Nifty is the headline index on the National Stock Exchange of India Ltd. (NSE). The S&P CNX Nifty tracks the behavior of a portfolio of blue chip companies, the largest and most liquid Indian securities. It includes 50 of the approximately 935 companies listed on the NSE, captures approximately 60% of its equity market capitalization and it is a true reflection of the Indian Stock Market. The S&P CNX Nifty covers 22 sectors of the Indian Economy and offers investment managers exposure to the Indian market in one efficient portfolio wherein index has been trading since April 1996.

The S&P CNX Nifty is a diversified index, accurately reflecting overall market conditions. The reward-to-risk ratio of S&P CNX Nifty is higher than other leading indices, making it a more attractive portfolio, by offering similar returns, but at lesser risk. The basic risk of the S&P CNX Nifty Futures will be lower, compared to other index portfolios, owing to the superior liquidity of the S&P CNX Nifty constituent stocks listed on the NSE.

Review of the Literature

A brief review of select studies has been presented in the following pages.

Lenin Kumar.N and Rama Devi.V. (2010), in their article, **"Risk-Return Analysis of Private and Public Mutual Funds",** found the high risk per unit ratio for private debt institutional funds and private equity diversified funds. Low risk per unit ratio for private money market and public debt institutional funds. It was found that there was no difference between return of private and public sector mutual funds.

The study entitled, "**Performance Measure of Mutual Fund**", by Keith Smith (2008), examined whether there is any correlation between the historical performance of a mutual fund and the growth in the assets of the fund in subsequent time periods. It was found that there was no significant correlation between portfolio performances.

Shantanu Raizadam (2007), in his research paper entitled, "**Performance of Mutual Funds in Comparison to the Market Index",** evaluated Mutual Fund performance using Sharpe, Treynor and Jensen's alpha method. Period selected was from April 2003 to March 2008 and sample selected included 20 open ended mutual growth fund from BSE 500. He concludes that more than 75% of the funds outperformed the market and delivered positive returns.

Rao (2007), in his paper, "**Investment Styles and Performance of Equity Mutual Funds in India",** analyzed the performance of open ended equity Mutual Funds from April 2005 to March 2006. He concludes that only four growth and one dividend plan, out of the total 42, registered positive return in the market, whereas the rest did not perform well enough.

This study entitled, "**Performance of Two Growth Oriented Mutual Funds on the Basis of Monthly Returns",** by Jayadev.M (2002), analyzed risk adjusted performance measures suggested by Jenson, Treynor and Sharpe. It was found that Mastergain performed better according to Jenson and Treynor measures on the basis of Sharpe Ratio but its performance was not up to the benchmark. The performance of Magnum Express was poor on the basis of all these three measures.

Stephen Brown.J and William Goetzmann.N (2002), in their article, **"Mutual Fund Styles"**, proposed a new approach for determining management styles. The study found that several funds misclassify themselves. Hence there was great need for style classifications that are objectively and empirically determined, consistent across managers and related to the strategy.

"**Performance Evaluation of Indian Mutual Funds in a Bear Market",** by Narayan Rao.S (2001), examined a sample of 269 open ended schemes and computed relative performance index. The results of performance measures suggest that most of the Mutual Fund Schemes, out of 58, were able to satisfy investors' expectations by giving excess returns over expected returns based on both premium for systematic risk and total risk.

Edwin Elton and Martin Gruber.J (1997), in their study, "**Predictability for Stock Mutual Funds Using Risk Adjusted Returns**", found that past performance was predictive of future risk adjusted performance. Applying modern portfolio theory techniques to the past data, could improve the selection.

Grinblatt and Titman (1994), in their paper, **"A Study of Monthly Mutual Fund Returns and Performance Evaluation Techniques",** evaluated the performance of 279 Mutual Funds and 109 passive portfolios using different benchmarks. The study revealed that the performance sensitivity depends greatly on the benchmark selection.

The above literature provides an overview of the performance evaluation of open ended Mutual Fund Schemes, along with some empirical studies. An attempt has been made in this study to evaluate the portfolio returns and market returns of selected Mutual Fund Schemes of S&P CNX Nifty, taking the models used in the above studies.

Objectives of the Study

The major objectives of the study are as follows.

➢ To evaluate the performance of equity monthly returns of selected Mutual Fund Schemes which outperformed the market portfolio.

➢ To analyze the performance of Mutual Fund Schemes, with respect to Sharpe's Measure, Treynor's Measure and Jensen's Measure.

Hypothesis of the Study

The following Null Hypothesis is was framed to analyze the evaluation of Equity Growth Mutual Funds based on monthly returns.

NH_1**:** There is no significant relationship between the portfolio return and market returns of S&P CNX Nifty under the Sharpe Ratio, Treynor's Ratio and Jensen's Ratio.

Methodology of the Study

A. Selection of the Sample

There are totally 42 Asset Management Companies in India. The highly traded Equity Growth Mutual Funds, brought out by these 42 Asset Management Companies, were selected as the sample which account for 12 Equity Growth Mutual Funds. The month end observations (End of every month) of Net Asset Value (NAV) of such schemes were analyzed. The details of sample companies are given in **Table- 1.** The names of Asset Management Companies are given in **Annexure-I.**

B. Sources and Collection of the Data

This study was mainly based on secondary data which were collected from various Mutual Fund websites like www.amfiindia.com, www.nseindia.com and www.rbi.org.in.

C. Period of the Study

This study takes into consideration the past monthly returns data from April, 01st 2006 to

January, 31st 2010 for the sample of Open Ended Equity Growth Fund Schemes to analyze their performance.

D. Tools used for Analysis

The following tools were used to evaluate the performance of Mutual Fund Schemes in India.

- Descriptive Statistics,
- Sharpe's Ratio, Treynor's Ratio, Jensen's Measure and One Sample T- Test.

Limitations of the Study

The study suffers from the following limitations.

➢ This study concentrated only on the Open Ended Equity Growth Fund Schemes.

➢ This study took into consideration only the monthly returns.

➢ The study period was limited to April 2006 to January 2010.

➢ This study was conducted to measure the performance of selected Open Ended Equity, and Growth Fund Schemes based only on the Sharpe, Treynor and Jensen.

Analysis of the Study

In order to study the performance of monthly returns of Open Ended Equity Growth Mutual Funds, the analysis was made as follows,

1. Analysis of Descriptive Statistics of S&P CNX Nifty Returns & Mutual Fund Schemes

2. Analysis of Portfolio Returns & Market Returns

3. Analysis of One Sample T – Test of S&P CNX Nifty Returns & Mutual Fund Schemes

1. Analysis of Descriptive Statistics of S&P CNX Nifty Returns & Mutual Fund Schemes

Table-2 shows the Descriptive Statistics of the Nifty return and Mutual Fund Schemes for 47 observations. It reveals that the Nifty return average was 3429.64, which means that the average of the index was positive and yielded positive return over the study period. The Deutsche Mutual Fund average was 57.411, Fidelity Mutual Fund average was 22.326, HDFC Mutual Fund average was 158.43, HSBC Mutual Fund average was 77.389, ING Mutual Fund average was 28.239, Kotak Mahindra Mutual Fund average was 26.644, LIC Mutual Fund average was 21.307, UTI Mutual Fund average was 35.240, Reliance Mutual Fund average was 12.316, Birla Mutual Fund average was 191.68, JM Mutual Fund average was 35.332 and Escorts Mutual Fund average was 58.160, and the average of Mutual Fund schemes was positive. The Standard Deviation was 768.26, which signifies the volatility of the Index Nifty. The Standard Deviations of Mutual Fund Schemes represent the variance in the portfolio Mutual Fund. Skewness of Nifty return was 0.155 and it was positively skewed. The skewness of Deutsche Mutual Fund was 0.404, Fidelity Mutual Fund was 0.126, HDFC Mutual Fund was 0.265, HSBC Mutual Fund was 0.353, ING Mutual Fund was 0.344, Kotak Mahindra was 0.158, LIC Mutual Fund was 0.563, UTI Mutual Fund was 0.301, Reliance Mutual Fund was 0.308, Birla Mutual fund was 0.287, JM Mutual Fund was 0.225 and Escorts Mutual Fund was 0.503. This means that longer tail was towards right. Therefore the distribution was skewed to the right which indicates that there was high probability of getting more returns. Standard Deviation of Nifty Return (768.26) deviated from its mean. The kurtosis of Deutsche Mutual Fund was -0.821, Fidelity Mutual Fund was -1.038, HDFC Mutual Fund was -0.838, HSBC Mutual Fund was -0.688, ING Mutual Fund was 0.023, Kotak Mahindra Mutual Fund was -0.621, LIC Mutual Fund was 0.742, UTI Mutual Fund was 0.681, Reliance Mutual Fund was -0.647, Birla Mutual Fund was -0.529, JM Mutual Fund was 0.429 and Escorts Mutual Fund was 0.219 and it reveals more variance, while compared to the Nifty Return.

2. Analysis of Portfolio Returns & Market Returns for Monthly Returns

The analysis of portfolio return and market return for monthly return is given in **Table-3**. Portfolio performance measures were applied to Deutsche Mutual Fund and its scheme, DWS Alpha Equity Fund Growth and the comparison between market return and portfolio return was arrived at. The Sharpe Ratio for the Deutsche Equity Growth Scheme was 0.009650 and it differed from the market portfolio index of 0.06953, indicating that Deutsche Equity Growth Scheme under performed. The Treynor Ratio for the Deutsche Equity Growth Scheme was 0.008871 and it differed from the market portfolio index of -0.000681, indicating that Deutsche Equity Growth Scheme out performed. The Jensen Ratio for the Deutsche Equity Growth Scheme was 0.000642 and it differed from the market portfolio index of 0.015708, indicating that Deutsche Equity Growth Scheme under performed.

The Sharpe Ratio for the Fidelity Equity Growth Scheme (0.01065) differed from the market portfolio index by 0.06853, indicating that Fidelity Equity Growth Scheme under performed. The Treynor Ratio for the Fidelity Equity Growth Scheme (0.0092) was higher than the market portfolio index by -0.00101, indicating that Fidelity Equity Growth Scheme out performed. The Jensen Ratio for the Fidelity Equity Growth Scheme (0.000990) was lower than the market portfolio index by 0.01536, indicating that Fidelity Equity Growth Scheme under performed. The Table reveals the comparison between market return and portfolio return for HDFC Mutual Fund and its scheme, HDFC Equity Fund – Growth Option. The Sharpe Ratio and Jensen Ratio indicate that the HDFC Equity Growth Scheme under performed the market. The Treynor Measure also indicates that HDFC Mutual Fund outperformed the market because S&P CNX NIFTY measure (0.00819) was lower than HDFC Mutual Fund measure

(0.011679). It shows the comparison between market return and portfolio return for HSBC Mutual Fund, and its scheme HSBC Equity Fund – Growth. The Table clearly shows that HSBC Equity Fund – Growth underperformed the market as per the Sharpe, Treynor and Jensen Measures. S&P CNX NIFTY measures of 0.07918, 0.00819 and 0.01635 were higher than the measures of the Sharpe, Treynor and Jensen i.e., 0.008224, 0.006843 and -0.00129, for HSBC Mutual Fund. The Table reveals the comparison of portfolio performance measures for ING Mutual Fund and its scheme, ING Core Equity Fund – Growth Option. S&P CNX NIFTY measures as per Sharpe, Jensen, Treynor Ratios were 0.07918, 0.00819 and 0.01635 respectively, are depicted in **Table-3**. These measures were greater than ING Mutual Fund measures of 0.006212, 0.000590 and -0.00223 as per the three methods, indicating that ING Mutual Fund underperformed the market. The S&P CNX NIFTY and Kotak Mahindra Mutual Fund, Kotak Equity –FOF- Growth are compared in **Table-3.** The comparison of Sharpe Ratio of Kotak Mutual Fund (0.007899) with S&P CNX NIFTY value (0.07918) reveals that Kotak Mutual Fund underperformed the market. Treynor Ratio and Jensen Measures indicates Kotak Mutual Fund under performed, since 0.007158 was lower than 0.00819 (Treynor Measure) and -0.00102 was lower than 0.01635 (Jensen Measure).

Table-3 shows the modern portfolio performance measures for LIC Mutual Fund and its scheme, LIC MF Equity Fund – Growth. The Sharpe Ratio for the LIC Equity Growth Scheme was 0.047528 and it differed from the market portfolio index by 0.031652, indicating that LIC Equity Growth Scheme under performed. The Treynor Ratio for the LIC Equity Growth Scheme was 0.005433 and it differed from market portfolio index by 0.002757, indicating that LIC Equity Growth Scheme under performed. The Jensen Ratio for the LIC Equity Growth Scheme was -0.00267 and it differed

from the market portfolio index by 0.01635, indicating that LIC Equity Growth Scheme under performed. The portfolio performance measures for UTI Mutual Fund and its scheme, UTI - Equity Fund–Growth Option, under the Sharpe Ratio was 0.007793 and it differed from the market portfolio index by 0.071387, indicating that UTI Equity Growth Scheme under performed. The Treynor Ratio for the UTI Equity Growth Scheme was 0.006403, which was higher than the market portfolio index by (0.001787), indicating that UTI Equity Growth Scheme under performed. The Jensen Ratio for the UTI Equity Growth Scheme was -0.00174 and market portfolio index was 0.001632, indicating that UTI Equity Growth Scheme out performed. The comparison between market returns and portfolio returns for Reliance Mutual Fund and its scheme Reliance Equity Fund – Growth Plan -Growth Option, under the Sharpe, Treynor and Jensen Measures are presented in the Table. S&P CNX NIFTY measures of 0.07918 and 0.01635 were higher than the measures under the Sharpe and Jensen i.e., 0.007873 and -0.00188. According to the Treynor Ratio, Reliance Mutual Fund under performed the market returns.

Table–3 reveals the comparison between market return and portfolio return for Birla Sun Life Mutual Fund and its scheme, Birla Sun Life Equity Fund - Plan B (growth). The Sharpe Ratio and Jensen Ratio indicate that the Birla Sun Life Equity Fund. Plan B (growth) under performed the market. The Treynor Measure also indicates that Birla Sun Life Mutual Fund outperformed the market. The Table exhibits the comparison between market return and portfolio return of JM Equity Mutual Fund. S&P CNX NIFTY measures, as per Sharpe, Jensen and Treynor Ratios, were 0.07918, 0.00819 and 0.01635 respectively. These measures were higher than JM Equity Mutual Fund measures of 0.001380, 0.001537 and -0.00648 under the three methods. Thus ING Mutual Fund underperformed the market. Portfolio performance measures were

applied to Escorts Mutual Fund and its scheme, Escorts Growth Plan- Growth Option. The Sharpe Ratio for the Escorts Equity Growth Scheme was 0.051608 and it differed from the market portfolio index by 0.027572, indicating that Escorts Equity Growth Scheme under performed. The Treynor Ratio for the Escorts Equity Growth Scheme was 0.006375 and it differed from the market portfolio index by 0.001815, indicating that Escorts Equity Growth Scheme under performed. The Jensen Ratio for the Escorts Equity Growth Scheme was -0.00162 and it differed from the market portfolio index by 0.01473, indicating that Escorts Equity Growth Scheme under performed. The Table also shows the application of portfolio performance measures to Escorts Mutual Fund and its scheme, Escorts Growth Plan- Growth Option.

3. Analysis of One Sample t – Test for Monthly Returns

The results revealed the One Sample T-Test for the Sharpe Ratio to be at a significance level of 0.05%. The significance level of 0.177 is higher than 0.05% level. Hence the null hypothesis i.e." There is no significant difference between portfolio return and market return", is accepted. The positive t-value of 1.443 indicates positive returns as per Sharpe Ratio. The One Sample T-Test results for Treynor Ratio are given in **Table-4.** The significance value of 0.119 leads to rejection of null hypothesis i.e. "There is no significant difference between portfolio return and market return". This One Sample T-Test for Treynor Ratio depicts a negative value (-1.689) and this indicates the negative returns as per Treynor Ratio. The results of One Sample T-Test for Jensen Measure are given in **Table-4** and they indicate that there was significant difference between portfolio return and market returns. Hence the null hypothesis i.e. "There is no significant difference between portfolio return and market return", is rejected due to at 0.000 significance value (Lower than 0.05%). The negative t-value indicates that the

portfolio return moved in the opposite direction with market returns.

Test of Hypothesis

The study analyzed the portfolio performance measures of Mutual Funds Companies by using three ratios of significance, i.e. Sharpe Ratios at 0.177, Treynor Ratios at 0.119 and Jensen Ratios at 0.000. It is clearly understood that there was no significant difference at 0.05 percent between levels of portfolio returns and market returns. Hence the null hypothesis, **"There is no significant relationship between the portfolio return and market returns under the Sharpe Ratio, Treynor's Ratio and Jensen's Ratio of S&P CNX Nifty",** is accepted and the alternative hypothesis is rejected.

Findings of the Study

The study presents the following findings.

1. This study discovered that the Mutual Funds Returns outperformed the Market Return as the Fund Managers were skilled enough to diversify the fund portfolio and beat the market.

2. Equity Growth Fund Schemes will probably continue to beat benchmarks until the markets become more efficiently performed. Although they might do it, they may not be able to do so with a huge margin.

3. The risk adjusted performance measures used in the study lead to similar results with high rank correlation between the measures.

4. Systematic Risk (Beta) for each of the funds was found to be moderate. Consequently, most of the funds had high beta and many Fund Managers might have generated positive returns.

5. The present study also brought to our notice that the Indian Market is significantly different from other markets and so is the Mutual Fund Industry.

6. This study shows that the Mutual Funds outperformed the Bench Mark Index. This leads to further conclusion that the Indian Stock Market is not efficient enough to match the Mutual Funds.

Suggestions of the Study

Based on the present study, the following suggestions are made.

1. The Equity Growth Fund Schemes are not advisable for short term investment.

2. The analytical study suggests that based on the monthly returns of NAV performance, the investor can invest in different schemes to earn higher return.

3. This study reveals that most of the Equity Growth Fund Schemes outperformed the Benchmark Index. It is suggested that investor can invest in these funds to get higher return.

4. This study suggests that the prospective investors may apply the basic minimum analytical tools used in this study for choosing the schemes for investment.

Conclusion

The Indian Mutual Fund Industry has grown at a remarkable rate in the recent past as a result of astonishing growth of the Indian Economy and its markets. The study was conducted with the view to understanding the Mutual Fund Industry, especially in the Indian scenario. Equity Growth Oriented Mutual Funds are expected to offer the advantages of Diversification, Market Timing and Selectivity. Global Market Trends indicate that as markets mature and fund sizes grow, it becomes increasingly difficult for funds to keep up their performance levels.

Scope for further Research

Generally, Mutual Fund Industry is a broad based investment field. There are lots of scope for further research such as:

1. Further study can be made on various other models on the same data set.

2. This study used Nifty as a benchmark to analyze the portfolio performance. For more detailed analysis of Indian Mutual Fund Market, the study can be made by comparing indices like NIFTY and SENSEX.

3. Portfolio Risk, through measure of Value at Risk (VaR), can also be tested for differences in Mutual Fund Schemes.

4. A wide comprehensive study encompassing a large and wide spectrum of Mutual Funds over a relatively longer period of time may be initiated.

5. The study may be conducted with comparative analysis of Indian and Foreign Mutual Funds performance.

6. The study may analyze the entry and exit load of Mutual Funds Schemes.

References

1. Daniel.et.al.,(1997)**,** Measuring Mutual Fund Performance with Characteristic-Based Benchmarks, *Finance India,* pp.23-27.

2. Donald E.Fischer and Ronald J. Jordon.(2000), *Security Analysis and Portfolio Management,* 6th Edition, Prentice Hall of India, New Delhi, pp.651-676.

3. Gordon and Natarajan. (2005), *Financial Markets and Services,* 2nd Edition**,** Himalaya Publishing House, New Delhi, pp.277-307.

4. Grinblatt and Titman (1994), A Study of Monthly Mutual Fund Returns and Performance Evaluation Techniques*, www.eurojournals.com*, pp.14-23.

5. Gupta S.P. (2006), *Statistical Methods*, 35th Edition, Sultan Chand & Sons Publications, New Delhi, pp.267-329.

6. Jayadev.M, (2002), Performance of Two Growth Oriented Mutual Funds on the Basis of Monthly Returns*, Journal of Finance India*, Vol. X, No. 1, pp.73-84.

7. Keith Smith,(2007), Performance Measure of Mutual Fund*, www.ssrn.com,* pp.89-106.

8. Khan, M.Y. (2004), *Financial Services*, 7th Edition, Tata McGraw Hill Publication, New Delhi, pp.91-99.

9. Lenin Kumar.N and Rama Devi.V, (2010), Risk-Return Analysis of Private and Public Mutual Funds, *SMART Journal of Business Management Studies*, Vol.6 No.1, pp. 35-41.

10. Narayan Rao.S (2001)**,** Performance Evaluation of Indian Mutual Funds in a Bear Market, *www.openpdf.com*, pp.08-15.

11. Pandey, I.M. (2006), *Financial Management*, 9th Edition, Vikas Publishing House, New Delhi, pp.82-99.

12. Prasanna Chandra. (2001),*Financial Management : Theory and Practice,*

5th Edition, Tata McGraw Hill Publication, New Delhi, pp.226-252.

13. Rao, (2007*)*, Investments Styles and Performance of Equity Mutual Funds in India**,** *www.ssrn.com,* pp.01-30.

14. Shantanu Raizadam**,** Performance of Mutual Funds in Comparison to the Market Index, *www.ssrn.com,* pp.233-244.

15. Stephen Brown.J and William Goetzmann.N, (2002**),** Mutual Fund Styles, *www.ssrn.com*, pp. 1-24.

16. Sundar Sankaran. (2007), *Indian Mutual Funds Handbook*, 5th Edition, Vision Books Pvt Ltd, New Delhi, pp.1-61.

Websites

1. www.amfiindia.com
2. www.mutualfundsindia.com
3. www.nseindia.com

Table -1

List of the Sample Mutual Fund Companies between 01.04.2006 and 31.01.2010

S.No	Name of the Company	Name of the Scheme
1.	DEUTSCHE MUTUAL FUND	DWS Alpha Equity Fund Reg Plan-Growth
2.	ESCORTS MUTUAL FUND	ESCORTS Growth Plan- Growth Option
3.	FIDELITY MUTUAL FUND	FIDELITY Equity Fund – Growth Option
4.	HSBC MUTUAL FUND	HSBC Equity Fund – Growth
5.	HDFC MUTUAL FUND	HDFC Equity Fund – Growth Option
6.	ING MUTUAL FUND	ING Core Equity Fund – Growth Option
7.	KOTAK MAHINDRA MUTUAL FUND	KOTAK Equity –FOF- Growth
8.	LIC MUTUAL FUND	LIC MF Equity Fund – Growth
9.	UTI MUTUAL FUND	UTI - Equity Fund – Growth Option
10.	RELIANCE MUTUAL FUND	RELIANCE Equity Fund – Growth Plan - Growth Option
11.	BIRLA SUN LIFE MUTUAL FUND	BIRLA SUN LIFE Equity Fund - Plan B (Growth)
12.	JM FINANCIAL MUTUAL FUND	JM Equity Fund – Growth

Source: www.amfiindia.com

Table- 2

Results of Descriptive Statistics Nifty Return & the Mutual Fund Schemes for Monthly Returns from April 01, 2006 to January 31, 2010

S. No	Name of the Mutual Fund	Mean	Median	Mode	S.D	Variance	Skewness	Kurtosis
1.	S&P CNX Nifty	3429.64	3456.70	4806.85	768.26	5902.99	0.155	-0.308
2	Deutsche Mutual Fund	57.411	55.968	41.280	12.041	144.98	0.404	-0.821
3.	Fidelity Mutual Fund	22.326	21.981	15.10	4.838	23.414	0.126	-1.038
4.	HDFC Mutual Fund	158.43	151.71	98.16	36.728	1349.01	0.265	-0.838
5.	HSBC Mutual Fund	77.389	76.608	54.690	15.715	246.98	0.353	-0.688
6.	ING Mutual Fund	28.239	27.680	17.780	6.1373	37.667	0.344	0.023
7.	Kotak Mahindra Mutual Fund	26.644	26.428	17.50	5.4389	29.582	0.158	-0.621
8.	LIC Mutual Fund	21.307	21.271	12.89	4.7480	22.544	0.563	0.742
9.	UTI Mutual Fund	35.240	34.850	32.75	6.7951	46.173	0.301	0.681
10.	Reliance Mutual Fund	12.316	12.324	8.640	2.2567	5.0930	0.308	-0.647
11.	Birla Sun Life Mutual Fund	191.68	186.870	116.92	46.574	2169.226	0.287	-0.529
12.	JM Mutual Fund	35.332	34.310	18.140	8.7508	76.5779	0.225	0.429
13.	Escorts Mutual Fund	58.160	56.820	34.820	14.370	206.498	0.503	0.219

Source: www.nseindia.com, www.mutualfundsindia.com, computed from SPSS 11.5.

Table – 3

Results of Portfolio Returns & Market Returns for Monthly Returns from April 01, 2006 to January 31, 2010

S.No	Name of the Mutual Fund	Sharpe Ratio	Treynor Ratio	Jensen Measure
1.	S&P CNX Nifty	0.07918	0.00819	0.01635
2.	Deutsche Mutual Fund	0.009650	0.008871	0.000642
3.	Fidelity Mutual Fund	0.01065	0.0092	0.000990
4.	HDFC Mutual Fund	0.011943	0.011679	0.00341
5.	HSBC Mutual Fund	0.008224	0.006843	-0.00129
6.	ING Mutual Fund	0.006212	0.000590	-0.00223
7.	Kotak Mahindra Mutual Fund	0.007899	0.007158	-0.00102
8.	LIC Mutual Fund	0.047528	0.005433	-0.00267
9.	UTI Mutual Fund	0.007793	0.006403	-0.00174
10.	Reliance Mutual Fund	0.007873	0.006265	-0.00188
11.	Birla Sun Life Mutual Fund	0.009351	0.009462	0.001250
12.	JM Mutual Fund	0.001380	0.001537	-0.00648
13.	Escorts Mutual Fund	0.051608	0.006375	-0.00162

Source: www.nseindia.com, www.mutualfundsindia.com, computed from SPSS 11.5.

Table - 4

Results of One Sample T – Test of Nifty Returns & Mutual fund Schemes for Monthly Returns from April 01, 2006 to January 31, 2010

Test Value = 0.00819						
Name of the Ratios	T	Df	Sig (2-tailed)	Mean Difference	95% Confidence Interval of the difference	
					Lower	Upper
Sharpe	1.443	11	0.177*	0.0068	-0.0036	0.0172
Treynor	-1.689	11	0.119*	-0.0015	-0.0035	0.0005
Jensen	-12.949	11	0.000*	-0.0092	-0.0108	-0.0077

Source: www.nseindia.com, www.mutualfundsindia.com, computed from SPSS 11.5.
Note: * significance at 0.05% levels.

ANNEXURE-I
LIST OF ASSET MANAGEMENT COMPANIES AS ON 30, NOVEMBER 2009

S. No.	Name of the Asset Management Company
1	Prudential ICICI Asset Management co. Ltd
2	Franklin Templeton Asset Management (India) Pvt Ltd
3	SBI Funds Management Pvt ltd
4	DSP Merrill Lynch Funds Managers Ltd
5	Kotak Mahindra Asset Management co Pvt Ltd
6	Standard Chartered Asset Management co Pvt Ltd
7	Tata Asset Management Ltd
8	UTI Asset Management co Pvt Ltd
9	Reliance Capital Asset Management co Ltd
10	HDFC Asset Management co Ltd
11	Birla Sun life Asset Management co Ltd
12	LIC Mutual Fund Asset Management co Ltd
13	Kotak Mahindra Asset Management co Ltd
14	Standard Chartered Asset Management co Ltd
15	Principal PNB Asset Management co Pvt Ltd
16	HSBC Asset Management (India) Pvt Ltd
17	Benchmark Asset Management co Pvt Ltd
18	Sundaram PNB Paribas Asset Management co Ltd
19	Deutsche Asset Management (India) Pvt Ltd
20	Fidelity Fund Management Pvt Ltd
21	ABN Amro Asset Management (India) Ltd
22	JM Financial Asset Management Pvt Ltd
23	ING Investment Management (India) Pvt Ltd
24	Morgan Stanley Investment Management Pvt Ltd
25	Canbank Investment Management Services Ltd
26	DBS Cholamandalam Asset Management Ltd
27	Lotus India Asset Management co Pvt Ltd
28	Tauras Asset Management co Ltd
29	Sahara Asset Management co Ltd
30	BOB Asset Management co Ltd
31	Escorts Asset Management co Ltd
32	Quantum Asset Management co Pvt Ltd
33	Diawa Asset Management (India) Private Limited
34	Fortis Investment Management (India) Pvt. Ltd
35	AXIS Asset Management Co. Ltd
36	Baroda Pioneer Asset Management Company Limited
37	AIG Global Asset Management co. Pvt. Ltd
38	Bharti AXA Investment Manager Private Ltd.
39	Canara Robeco Asset Management Company Ltd
40	Edelweiss Asset Management Limited
41	IDBI Asset Management Limited
42	L&T Investment Management Limited

Source: Computed form the Website www.amfiindia.com.