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PERFORMANCE EVALUATION OF GROWTH ORIENTED EQUITY MUTUAL FUNDS IN INDIA

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ABSTRACT:

Present paper investigates the performance of growth oriented mutual funds in India so as to help the investors in identifying the appropriate fund(s) for investment without getting indulged in jumble of information available. A sample of twenty open-ended and growth oriented equity mutual funds schemes has been selected for evaluation of their performance ten from Large Cap section and the other ten from Small-Mid Cap section. The study chooses month-end closing values of BSE 100 National Index as market portfolio surrogate and 91 days Treasury Bills (T-Bills) as risk-free asset surrogate. The performance of sample mutual fund schemes has been evaluated by using Sharpe Ratio, Treyner Ratio and Jensen Alpha. We observed that large cap schemes have performed better than the small-mid cap schemes on almost all the measures, except on absolute return measure. However the Large Cap and Small-Mid schemes have earned adequate returns against the level of risk involved and only few were able to outperform the market risk. It implies that investors are rewarded sufficiently only against the level of risk involved in mutual fund portfolio but not against the level of risk involved in market portfolio.

KEY WORD: Mutual Fund, Equity, Large Cap, Mid Cap, Sharpe Ratio, Treynor Ratio, Jenson Alpha.

INTRODUCTION AND PURPOSE

Mutual fund is a trust that pools together the resources of investors to make a foray into investments in the capital market thereby making the investor to be a part owner of the assets of the mutual fund. The fund is managed by a professional money manager who invests the money collected from different investors in various stocks, bonds or other securities according to specific investment objectives as established by the fund. The main advantage of mutual funds over any other investment to small investor is that they give them access to professionally managed, diversified portfolio of equities, bonds etc which is rather impossible for small investors to create with a small amount of capital they own. However the to identify the right fund for investment is a nightmare for the investors as they do not understand the technical language and depends on advise of the agent. Because of lack of knowledge many times they loses their money in the market. May studies have been conducted so far and translated in to a model to ease the technicalities and help the investors to understand the mechanism of mutual fund investment and compare and contrast the various schemes to pick the best for their portfolio. That's how the evaluating historical performance of Mutual Funds is important both for investors. It enables an investor to access as to how much return has been generated by the portfolio manager and what risk level has been assumed in generating such returns. Further, an investor can also appraise the comparative performance of different fund managers. Similarly fund managers would also be able to know their performance over time and also vis-a-vis that of other competitors in the industry. The evaluation also provides a mechanism for identifying strengths and weaknesses of fund managers in the investment process, which helps them to take corrective actions.

OBJECTIVES OF THE STUDY

The study aims to attain the following objectives:

1. To measure the risk and return of mutual fund schemes;
2. To analyze the schemes performances helping investors in easing decision making.

LITERATURE REVIEW

Tomer and Khan (2014) evaluated the performance of 46 public and private sector mutual funds. Their results show a mixed performance of the sample public and private sector mutual funds. The private sector funds performed better than public sector schemes in all fronts. The best performing funds were HDFC, Birla Sun Life and Kotak Mahindra. Mutual funds were projected to outperform the market in future. Karrupasamy R and Vanaja, V. (2013), in their study analyzed the performance of different mutual fund schemes (Large Cap, Small & Mid cap Equity Schemes) on the basis of returns and comparison with their bench marks and also to appraise the performance of different category of funds using risk adjusted measures as suggested by Sharpe, Treynor and Jensen. The study revealed the investors for investment below 2 years can choose large cap schemes and investment beyond 3 years can be made in Small & mid cap schemes. Yadav J.S and Yadav O.S. (2012) analyzed and compare between Mutual Funds and Foreign Institutional Investors. They found that though the India is an attractive destination for investment by Foreign Institutional Investors, investments made by the mutual funds were greater than investment made by FII's, during the recession MF industry has played a vital role in pushing the economy upward while FII's withdrew their investment, showing the

importance of MF's in Indian economy. Shitole and Thyagarajan (2012) evaluated the performance of three AMCs, namely, ICICI Prudential AMC, HDFC AMC and Franklin Templeton AMC and opined that most funds were able to provide market related returns and many schemes outperformed their respective benchmark indices. Swaminathan (2011) analyzed the performance of 130 open ended mutual fund schemes from April 2003 to March 2008. The results showed that the private sector schemes performed better than their public counterparts and growth schemes were the best schemes.

E. Priyadarshini and A. Chandra Babu (2011) have done Prediction of The Net Asset Values of Indian Mutual Funds Using Auto- Regressive Integrated Moving Average (Arima). In this paper, some of the mutual funds in India had been modeled using Box-Jenkins autoregressive integrated moving average (ARIMA) methodology. Validity of the models was tested using standard statistical techniques and the future NAV values of the mutual funds have been forecasted. Ashok Khurana and Kavita Panjwani (2010), have analyzed Hybrid Mutual Funds. Mutual fund returns can be compared using Arithmetic mean & Compounded Annual Growth Rate. Risk can be analyzed by finding out Standard Deviation, Beta while performance analysis is based on Risk-Return adjustment. Key ratios like Sharpe ratio and Treynor ratio are used for Risk-Return analysis. Funds are compared with a benchmark, industry average, and analysis of volatility and return per unit to find out how well they are performing with respect to the market.
Muthappan P K and Damodharan E (2006) evaluated 40 schemes for the period April 1995 to March 2000. The study identified that majority of the schemes earned returns higher than the market but lower than 91 days Treasury bill rate. The average risk of the schemes was higher than the market. 15 schemes had an above average monthly return. Growth schemes earned average monthly return. The risk and return of the schemes were not always in conformity with their stated investment objectives. The sample schemes were not adequately diversified, as the average unique risk was 7.45 percent with an average diversification of 35.01 percent. 23 schemes outperformed both in terms of total risk and systematic risk. 19 schemes with positive alpha values indicated superior performance. The study concludes that the Indian Mutual Funds were not properly diversified. Sapar, Narayan R. and Madava, R. (2003) conducted a research on the performance evaluation of Indian mutual funds in a bear market. The period of study was September 1998 to April 2002 (bear period). They used a sample of 58 for analysis. Mean monthly (logarithmic) return and risk of the sample mutual fund schemes during the period were 0.59% and 7.10%, respectively, compared to similar statistics of 0.14% and 8.57% for market portfolio. The results of performance measures suggest that most of the mutual fund schemes in the sample of 58 were able to satisfy investor's expectations by giving excess returns over expected returns based on both premium for systematic risk and total risk. Gupta Amitabh (2001) evaluated the performance of 73 selected schemes with different investment objectives, both from the public and private sector using Market Index and Fundex. NAV of both close-end and open-end schemes from April 1994 to March 1999 were tested. They found that sample schemes were not adequately diversified, risk and return of schemes were not in conformity with their objectives, and there was no evidence of market timing abilities of mutual fund industry in India.

Treynor (1965) used 'characteristic line' for relating expected rate of return of a fund to the rate of return of a suitable market average. He coined a fund performance measure taking investment risk into account. Further, to deal with a portfolio, 'portfolio-possibility line' was used to relate expected return

to the portfolio owner's risk preference. Treynor and Mazuy (1966) evaluated the performance of 57 fund managers in terms of their market timing abilities and found that, fund managers had not successfully outguessed the market. The results suggested that, investors were completely dependent on fluctuations in the market. Sharpe, William F (1966) developed a composite measure of return and risk. He evaluated 34 open-end mutual funds for the period 1944-63. Reward to variability ratio for each scheme was significantly less than DJIA (Dow Jones Industrial Average) and ranged from 0.43 to 0.78. Expense ratio was inversely related with the fund performance, as correlation coefficient was 0.0505. The results depicted that good performance was associated with low expense ratio and not with the size. Sample schemes showed consistency in risk measure. Jensen (1968) developed a composite portfolio evaluation technique concerning risk-adjusted returns. He evaluated the ability of 115 fund managers in selecting securities during the period 1945-66. Analysis of net returns indicated that, 39 funds had above average returns, while 76 funds yielded abnormally poor returns. Using gross returns, 48 funds showed above average results and 67 funds below average results. Jensen concluded that, there was very little evidence that funds were able to perform significantly better than expected as fund managers were not able to forecast securities price movements. Fama (1972) developed methods to distinguish observed return due to the ability to pick up the best securities at a given level of risk from that of predictions of price movements in the market. He introduced a multi- period model allowing evaluation on a period-by-period and on a cumulative basis. He concluded that, return on a portfolio constitutes of return for security selection and return for bearing risk. His contributions combined the concepts from modern theories of portfolio selection and capital market equilibrium with more traditional concepts of good portfolio management.

METHODOLOGY

Selection of Schemes and Database Description

A sample of 20 equity mutual funds schemes has been selected for evaluation of their performance. Ten of these schemes belong to Large Cap section and the other 10 belong to Small-Mid Cap section. All the schemes are open-ended and growth oriented. The selection of mutual funds schemes was based on the two considerations: 1) Availability of NAV data and 2) CRISIL rating. NAV figures for multiple schemes were not available; therefore the sample had to be restricted to the selected ten schemes. For purpose of this study schemes rated 4-stars by CRISIL were taken. The reason to select open ended schemes is that they have been of special interest to the investors and account for more than 80% of the total funds in India. Selected schemes are given in Table I and II.

Table-1: Small Cap Mutual Fund Schemes

S No.	Scheme Name	Fund House	Classification	Option	Aim
1	Kotak Emerging Equity Fund	Kotak	Open	Growth	Income
2	Franklin Smaller Companies Fund	Franklin Templeton	Open	Growth	Growth
3	Mirae Emerging Bluechip Fund	Mirae	Open	Growth	Income
4	SBI Magnum Midcap Fund	SBI	Open	Growth	Balanced
5	Birla Sunlife Midcap Fund	Birla Sunlife	Open	Growth	Income
6	Franklin India Prima Fund	Franklin Templeton	Open	Growth	Balanced
7	UTI MidCap Fund	UTI	Open	Growth	Growth
8	HDFC MidCap Opportunities Fund	HDFC	Open	Growth	Income
9	L&T India Value Fund	L&T	Open	Growth	Balanced
10	Birla SL Pure Value Fund	Birla Sunlife	Open	Growth	Growth

Table-2: Large Cap Mutual Fund Schemes

S No.	Scheme Name	Fund House	Classification	Option	Aim
1	Kotak Emerging Equity Fund	Kotak	Open	Growth	Growth
2	SBI Blue Chip Fund	SBI	Open	Growth	Growth
3	Birla SL Frontline Equity Fund	Birla Sunlife	Open	Growth	Balanced
4	Birla Sun Life Top 100 Fund	Birla Sunlife	Open	Growth	Balanced
5	Franklin India Bluechip	Franklin Templeton	Open	Growth	Growth
6	BNP Paribas Equity Fund	BNP Paribas	Open	Growth	Growth
7	ICICI Pru Focused Bluechip Fund	ICICI Prudential	Open	Growth	Income
8	HDFC Growth Fund	HDFC	Open	Growth	Income
9	UTI Mastershare Fund	UTI	Open	Growth	Balanced
10	TATA Large Cap Fund	TATA	Open	Growth	Income

To evaluate the performance of mutual funds, the study covers a sample period of seven years from January 1, 2010 to December 31, 2017.

The research is based on secondary data. The information on mutual funds has been collected from reports published by Reserve Bank of India (RBI), Securities and Exchange Board of India (SEBI), Association of Mutual Funds in India (AMFI). Historical NAV data for the schemes has been collected from their respective database websites. The data Benchmark Index (BSE 100) and Treasury bills (91-days) has been obtained from the websites of Bombay Stock Exchange (BSE) and National Stock Exchange (NSE) respectively.

Market Portfolio Surrogate

The evaluation of managed fund portfolio requires comparison with a market portfolio benchmark against which the performance of a security or mutual fund can be measured. This study used BSE 100 Index as the suitable stock index surrogate. The study chooses month-end closing values of BSE 100 National Index for the benchmark comparison. Balanced

Risk Free Asset Surrogate

Risk-free asset is used as a baseline against which the investments in risky assets can be evaluated. We have chosen 91 days Treasury Bills (T-Bills) as risk-free asset surrogate in our study.

Measures of Performance Evaluation

The performance of sample mutual fund schemes has been evaluated by using the following measures:

Return Measure

The returns on mutual fund schemes have been computed using the month-end NAVs of schemes.

$$R_{pt} = (NAV_t - NAV_{t-1}) / NAV_{t-1} \quad (1)$$

Where R_{pt} = return on fund portfolio in month t, NAV_t = net asset value in month t and NAV_{t-1} = net asset value in previous month. The month-end return on market portfolio (BSE 100) is also calculated on the similar lines,

$$R_{mt} = (CP_{mt} - CP_{mt-1}) / CP_{mt-1} \quad (2)$$

Where R_{mt} = return on market portfolio in month t, CP_{mt} and CP_{mt-1} are the closing prices on market portfolio in month t and t-1 respectively. The computed monthly returns have been averaged for the period of study i.e., 84 months, to get a single monthly rate of return for each mutual fund scheme and market portfolio.

Risk Measure

Formula for measuring standard deviation is:

$$\sigma = [\sum (R_{pt} - AR)^2 / t]^{1/2} \quad (3)$$

Where, R_{pt} = return on portfolio in month t, AR = mean return on portfolio, t = number of months in a period for which the standard deviation of portfolio is calculated.

The beta (market risk) of fund portfolio can be computed by using the Capital Asset Pricing Model (CAPM) version of the market model:

$$R_{pt} = \alpha + \beta_p R_{mt} + e_{pt} \quad (4)$$

Where Rp = return on fund portfolio, Rm = return on market portfolio, α = intercept, βp = slope or beta coefficient, ep = random error term and t = for time period.

Treynor Ratio

Treynor (1965) devised the measure of portfolio performance based on systematic/market risk (β). It measures the return generated per unit of market risk. His model is widely called as the reward to volatility ratio (RVOL), which uses the benchmark based on ex post security market line (SML).

$$TR_p = \text{Excess Return / Market Risk} = R_p - R_f / \beta_p \quad (5)$$

Where TRp corresponds to the Treynor ratio for fund portfolio, Rp = return on fund portfolio, Rf = return on risk-free asset, βp= market risk for fund portfolio return. The Treynor ratio for benchmark portfolio is, TRm = Rm – Rf / βm, where (Rm – Rf) is the excess market return and βm is systematic risk for market return.

Sharpe Ratio

Sharpe developed a composite index of portfolio performance in 1966 known as the reward to variability ratio (RVAR). This ratio measures the returns relative to total risk of portfolio, where total risk is the standard deviation of the portfolio returns.

$$SR_p = \text{Excess Return / Total Risk} = R_p - R_f / \sigma_p \quad (6)$$

Where SRp corresponds to the Sharpe's Ratio for fund portfolio, Rp = return on fund portfolio, R_f = return on risk-free asset, σ_p = standard deviation of fund portfolio returns.

Jensen Differential Return (Jensen Alpha)

Model developed in 1968 by Michael C. Jensen. It measures the excess returns on portfolios over and above the expected returns that is predicted by CAPM, given the portfolio beta and market returns.

$$\text{Jensen alpha } (\alpha_p) = (R_{pt} - R_{ft}) - \beta_p (R_{mt} - R_{ft}) + e_{pt} \quad (7)$$

Where Rp = return on fund portfolio, Rf = risk-free return, βp = portfolio beta coefficient, Rm = market return, ep = random error term and t = for time period. Jensen's alpha will be estimated by using standard regression technique.

RESULTS & DISCUSSION

Risk and Return Analysis

The return and risk analysis of 20 sample mutual fund schemes is given in Table 3 & 4. Looking at the two tables we find that both Large Cap as well as Small-Mid Cap schemes outperform the market in terms of returns. Small-Mid Cap schemes generate a higher return than Large Cap schemes but they also had a greater portfolio risk comparatively. This is due to diversification advantages enjoyed by Large Cap funds. Large Cap schemes had risk lower than the market benchmark risk. All the schemes were able to produce greater return than the market benchmark. Highest return was generated by Birla Sun life Mid Cap Fund of 25.62%, while the greatest risk was found in Birla SL Pure Value Fund at 24.22%. Out of 10 Small-Mid Cap funds only two had risk below the market portfolio risk. On the other hand 7 out of 10 Large Cap funds had risk lower than the market portfolio risk.

Table-3: Risk and Return of Small-Mid Cap Funds

S No.	Scheme Name	Portfolio return (%)	Portfolio Risk (%)	Fund Beta	t	SIG
1	Kotak Emerging Equity Fund	13.95	17.32	1.06	11.406	0.00
2	Franklin Smaller Companies Fund	15.68	16.72	1.02	18.867	0.00
3	Mirae Emerging Bluechip Fund	16.08	23.87	0.97	18.867	0.00
4	SBI Magnum Midcap Fund	15.43	14.35	0.98	19.329	0.00
5	Birla Sunlife Midcap Fund	25.62	18.08	1.11	31.22	0.00
6	Franklin India Prima Fund	1.11	16.4	1.03	20.219	0.00
7	UTI MidCap Fund	19.67	17.77	1.03	18.045	0.00
8	HDFC MidCap Opportunities Fund	17.75	16.5	0.99	6.541	0.00
9	L&T India Value Fund	17.39	18.89	1.15	7.508	0.00
10	Birla SL Pure Value Fund	19.83	24.22	1.35	11.436	0.00
	Average	**16.25**	**18.41**	**1.07**		

Table-4: Risk and Return of Large Cap Funds

S No.	Scheme Name	Portfolio return (%)	Portfolio Risk (%)	Fund Beta	t	SIG
1	Kotak Emerging Equity Fund	14.62	15.52	1.04	9.911	0.00
2	SBI Blue Chip Fund	11.45	13.57	0.91	8.467	0.00
3	Birla SL Frontline Equity Fund	22.46	14.79	1.02	7.980	0.00
4	Birla Sun Life Top 100 Fund	15.29	15.17	1.03	9.127	0.00
5	Franklin India Bluechip	21.68	18.1	0.96	7.341	0.00
6	BNP Paribas Equity Fund	17.33	16.82	1.07	9.603	0.00
7	ICICI Pru Focused Bluechip Fund	14.91	14.45	0.99	9.205	0.00
8	HDFC Growth Fund	18.18	16.6	1.11	11.097	0.03
9	UTI Mastershare Fund	18.22	14.49	0.98	10.306	0.02
10	TATA Large Cap Fund	21.59	13.85	0.94	11.846	0.00
	Average	**17.5**	**13.3**	**1.02**		

Table-5: Risk and Return of Small-Mid cap Funds Vs. Benchmark Portfolio

S No.	Scheme Name	Portfolio return (%)	Portfolio Risk (%)	Risk Free return (%)	Market Portfolio Return (%)	Market Portfolio Risk (%)	t	SIG
1	Kotak Emerging Equity Fund	13.95	17.32	7.23	9.00	16.52	10.693	0.00
2	Franklin Smaller Companies Fund	15.68	16.72	7.23	9.00	16.52	14.944	0.00
3	Mirae Emerging Bluechip Fund	16.08	23.87	7.23	9.00	16.52	14.944	0.00
4	SBI Magnum Midcap Fund	15.43	14.35	7.23	9.00	16.52	16.903	0.00
5	Birla Sunlife Midcap Fund	25.62	18.08	7.23	9.00	16.52	22.673	0.00
6	Franklin India Prima Fund	1.11	16.4	7.23	9.00	16.52	17.673	0.00
7	UTI MidCap Fund	19.67	17.77	7.23	9.00	16.52	13.498	0.00
8	HDFC MidCap Opportunities Fund	17.75	16.5	7.23	9.00	16.52	6.566	0.00
9	L&T India Value Fund	17.39	18.89	7.23	9.00	16.52	7.327	0.00
10	Birla SL Pure Value Fund	19.83	24.22	7.23	9.00	16.52	9.887	0.00
	Average	**18.24**	**18.41**	**7.23**	**9.00**	**16.52**		

Table-6: Risk and Return of Large cap Funds Vs. Benchmark Portfolio

S No.	Scheme Name	Portfolio return (%)	Portfolio Risk (%)	Risk Free return (%)	Market Portfolio Return (%)	Market Portfolio Risk (%)	t	SIG
1	Kotak Emerging Equity Fund	14.62	15.52	7.23	9.00	16.52	9.932	0.00
2	SBI Blue Chip Fund	11.45	13.57	7.23	9.00	16.52	9.441	0.00
3	Birla SL Frontline Equity Fund	22.46	14.79	7.23	9.00	16.52	10.265	0.00
4	Birla Sun Life Top 100 Fund	15.29	15.17	7.23	9.00	16.52	14.833	0.00
5	Franklin India Bluechip	21.68	18.1	7.23	9.00	16.52	18.951	0.00
6	BNP Paribas Equity Fund	17.33	16.82	7.23	9.00	16.52	19.987	0.00
7	ICICI Pru Focused Bluechip Fund	14.91	14.45	7.23	9.00	16.52	16.147	0.00
8	HDFC Growth Fund	18.18	16.6	7.23	9.00	16.52	8.973	0.00
9	UTI Mastershare Fund	18.22	14.49	7.23	9.00	16.52	9.092	0.00
10	TATA Large Cap Fund	21.59	13.85	7.23	9.00	16.52	10.659	0.00
	Average	**17.573**	**15.33**	**7.23**	**9.00**	**16.52**		

Table-7: Sharpe Ratio and Treynor Ratio Analysis for Small-Mid cap Funds

S No.	Scheme Name	Sharpe Ratio			Treynor Ratio		
		Fund	Benchmark	Rank	Fund	Benchmark	Rank
1	Kotak Emerging Equity Fund	1.65	1.57	2	6.34	1.4	10
2	Franklin Smaller Companies Fund	1.64	1.57	3	8.28	1.4	9
3	Mirae Emerging Bluechip Fund	1.75	1.57	1	9.12	1.4	6
4	SBI Magnum Midcap Fund	0.89	1.57	10	8.37	1.4	8
5	Birla Sunlife Midcap Fund	1.3	1.57	8	16.72	1.4	1
6	Franklin India Prima Fund	1.15	1.57	9	13.37	1.4	2
7	UTI MidCap Fund	1.37	1.57	6	12.08	1.4	3
8	HDFC MidCap Opportunities Fund	1.45	1.57	4	10.63	1.4	4
9	L&T India Value Fund	1.43	1.57	5	8.83	1.4	7
10	Birla SL Pure Value Fund	1.24	1.57	7	9.33	1.4	5
	Average	**1.387**	**1.57**		**10.3074**	**1.4**	

Table-8: Sharpe Ratio and Treynor Ratio Analysis for Large cap Funds

S No.	Scheme Name	Sharpe Ratio			Treynor Ratio		
		Fund	Benchmark	Rank	Fund	Benchmark	Rank
1	Kotak Emerging Equity Fund	1.24	1.57	2	7.11	1.4	9
2	SBI Blue Chip Fund	1.16	1.57	3	4.64	1.4	10
3	Birla SL Frontline Equity Fund	1.00	1.57	4	14.93	1.4	3
4	Birla Sun Life Top 100 Fund	1.00	1.57	4	7.83	1.4	7
5	Franklin India Bluechip	0.94	1.57	5	15.05	1.4	2
6	BNP Paribas Equity Fund	0.83	1.57	8	9.44	1.4	6
7	ICICI Pru Focused Bluechip Fund	0.92	1.57	6	7.76	1.4	8
8	HDFC Growth Fund	0.87	1.57	7	9.86	1.4	5
9	UTI Mastershare Fund	8.45	1.57	1	11.21	1.4	4
10	TATA Large Cap Fund	0.76	1.57	9	15.28	1.4	1
	Average	**1.717**	**1.57**		**10.31**	**1.4**	

Table 7 and 8 present the Sharpe ratios for the sample mutual fund schemes and also for the benchmark portfolio. Out of 10 Small - Mid Cap sample schemes, only 3 schemes (30 percent) have better ratios in comparison to the relevant benchmark portfolio. It means that only 3 schemes have outperformed their respective benchmark. Negative value of the ratio shows poor performance. It can be seen from the above Table that none of schemes have negative values of their ratios. This indicates that adequate returns against the level of risk involved have been offered to investors. Top performers are Mirae Emerging BlueChip Fund, Kotak Emerging Equity Fund and Franklin Smaller Companies Fund. In case of Large Cap Schemes, out of 10 schemes only one has better ratio in comparison to the relevant benchmark portfolio. UTI Mastershare has a Sharpe ratio of 8.45 which is significantly higher than market benchmark of 1.57. Other schemes have ratio close to 0.9.

The above results indicate that many schemes have failed to outperform their respective benchmarks in terms of Sharpe Ratio. The average Sharpe Ratio for Small-Mid Cap is lower than the

Ratio for Large Cap Schemes. However this is largely due to UTI Mastershare's ratio, and it can't be said that Large Cap Schemes have performed better than Small-Mid Cap schemes. The average Sharpe ratio for benchmark portfolio is 1.57, which is higher than Small-Mid Cap (1.37) but lower than Large Cap sample schemes (1.71). This implies that Small-Mid Cap sample schemes have proved to be under performers vis-à-vis to their counterpart from the benchmark portfolio, while Large Cap sample schemes have outperformed albeit only slightly.

Treynor Ratio Analysis

Treynor ratio measures the excess return earned per unit of systematic/ market risk. Treynor ratio is computed by dividing the difference of average return of a fund and the risk-free rate by the beta of a fund. Higher the Treynor ratio, the better the performance of the fund. Table 7 & 8 presents the Treynor ratios for the sample schemes and for the benchmark portfolio. All the schemes had Treynor Ratio that is better than the Benchmark Portfolio.

The top performers include Tata Large Cap Fund, Franklin India Blue Chip Fund and Birla Sunlife MidCap Fund. Only HDFC MidCap Opportunities Fund has the same rank hence is a fully diversified fund.

The results pertaining to Sharpe and Treynor ratios give different ranking of schemes. Most of them show under performance in terms of Sharpe ratio but out performance in terms of Treynor ratio. This indicates that the fund managers are able to provide sufficient risk-adjusted returns to investors on the basis of systematic risk (beta) only but not on the basis of total risk (standard deviation). Therefore, it is possible that a scheme, which performs less or underperforms in terms of Sharpe ratio, may perform high or outperform in terms of Treynor ratio. This happens because Sharpe ratio adjusts return per unit of total risk while Treynor ratio adjusts return per unit of systematic risk. Owing to this, the ranking of funds in terms of both ratios may differ.

Jensen Differential Return Measure Analysis

Table-9: Jensen Measure for Small-mid cap Funds

S No.	Scheme Name	Portfolio return (%)	Risk Free Return (%)	Market Portfolio Return	Alpha
1	Kotak Emerging Equity Fund	13.95	7.23	9.00	0.6038
2	Franklin Smaller Companies Fund	15.68	7.23	9.00	2.5646
3	Mirae Emerging Bluechip Fund	16.08	7.23	9.00	3.2531
4	SBI Magnum Midcap Fund	15.43	7.23	9.00	-2.545
5	Birla Sunlife Midcap Fund	25.62	7.23	9.00	12.043
6	Franklin India Prima Fund	1.11	7.23	9.00	7.8269
7	UTI MidCap Fund	19.67	7.23	9.00	6.4969
8	HDFC MidCap Opportunities Fund	17.75	7.23	9.00	4.8077
9	L&T India Value Fund	17.39	7.23	9.00	3.5245
10	Birla SL Pure Value Fund	19.83	7.23	9.00	4.8105
	Average	**18.24**	**7.23**	**9**	**4.3385**

Table-10: Jensen Measure for Large cap Funds

S No.	Scheme Name	Portfolio return (%)	Risk Free Return (%)	Market Portfolio Return	Alpha
1	Kotak Emerging Equity Fund	14.62	7.23	9.00	1.39
2	Franklin Smaller Companies Fund	11.45	7.23	9.00	-1.030
3	Mirae Emerging Bluechip Fund	22.46	7.23	9.00	9.344
4	SBI Magnum Midcap Fund	15.29	7.23	9.00	2.116
5	Birla Sunlife Midcap Fund	21.68	7.23	9.00	8.910
6	Franklin India Prima Fund	17.33	7.23	9.00	3.926
7	UTI MidCap Fund	14.91	7.23	9.00	1.967
8	HDFC MidCap Opportunities Fund	18.18	7.23	9.00	4.535
9	L&T India Value Fund	18.22	7.23	9.00	5.335
10	Birla SL Pure Value Fund	21.59	7.23	9.00	8.936
	Average	**17.573**	**7.23**	**9**	**4.54323**

The results of Jensen measure for sample mutual fund schemes are presented in above table shows that out of the 20 sample schemes, alpha values for 18 schemes (90%) are positive which indicate the superior stock selectivity of their fund managers. It also shows that the fund managers of these schemes have generated returns above than the equilibrium/ expected returns. Only SBI Magnum and SBI BlueChip Fund schemes have negative alpha values. The average alpha for both Large Cap and Small-Mid Cap is around 4.5 indicating superior skills on part of fund managers, as their selected portfolio is earning 4.5 more than it should at their level of systematic risk.

FINDINGS & CONCLUSIONS

The summarized results regarding under or out performance of funds vis-à-vis the benchmark index i.e., BSE 100 is presented in Table VI. Overall analysis shows that Large Cap and Small- Mid Cap schemes have generally earned returns higher than the risk-free return during the period of the study. Majority of the sample schemes have also satisfied their investors in terms of earning returns commensurate to their risk and return objectives, which suggest that mutual funds have followed the stated objectives of their schemes quite nicely.

Table-11

Summarized Results

Performance Parameters	Small-Mid Cap	Large Cap	Outperformance	Explanation
Small-Midcap Schemes have				
On Return Basis	18.24%	17.57%	Small-Mid Cap	outperformed the Large Cap schemes in terms of absolute returns.
Risk Against Market (16%)	18.41%	15.33%	Large Cap	Large Cap schemes were comparatively less risky than the market portfolio. Small Mid-Cap were more risky than the market portfolio
Sharpe Ratio (1.57)	1.387	1.717	Large Cap	Large Cap schemes provide higher returns per unit of total risk than the small-mid cap schemes
Treynor Ratio (1.4)	10.31	10.31	None	Both sets of the sample provide similar returns per unit of total risk.
Jensen Alpha	4.33	4.54	None	Both the large and small-mid cap fund managers are found to be good generators of return and stock selectors

The Sharpe ratio of sample schemes shows that majority of the Large Cap and Small-Mid schemes have earned adequate returns against the level of risk involved. However only few were able to outperform the market risk. It implies that investors are rewarded sufficiently only against the

level of risk involved in mutual fund portfolio but not against the level of risk involved in market portfolio. With regard to Treynor ratio, the sample schemes have performed relatively better. The stock selectivity skills of fund managers are also found good according to the Jensen criterion.

Thus, in sum, results show a mixed performance of sample large cap and small-mid cap mutual fund schemes. The large cap schemes have performed better than the small-mid cap schemes on almost all the measures, except on absolute return measure. Mutual funds industry in India is still in a growing phase and it has yet to grow manifold. Our study suggests that mutual funds in India have been able to add value. Therefore we can say that the mutual fund industry has the potential to outperform the market in the future.

References

1. Tomer, J., & Khan, N. (2014). Performance Evaluation of Mutual Funds in India. Finance India.
2. C. Srinivas Yadav & Hemanth N C (2014) Growth Performance and Risk Analysis of Diversified Equity Mutual Funds: A Study. Asia Pacific Journal of Research in Business Management.
3. K. Veeraiah & A. Kishore Kumar (2014) Performance Appraisal of Mutual Funds in India: Empirical Evaluation of Risk and Timings Performance. Finance India.
4. K. Mallikarjuna Rao & H. Ranjeeta Rani, (2013) Performance Evaluation of Mutual Funds in India – A Risk-Adjusted Return Analysis. Amity Management Analyst.
5. E. Priyadarshini (2013) Mutual Fund Daily Conditional Performance. The Journal of Financial Research.
6. N. K. Sharma & R Ravikumar (2013) Performance Evaluation of Equity Based Mutual Funds: A Case Study of Three Asset Management Companies in India. The Management Accountant
7. R. Karrupasamy & V. Vanaja, (2013) Mutual Funds: Growth, Performance and Prospects. Economic and Political Weekly
8. R. Narayanasamy & V. Rathnamani (2013) Characteristics and Performance Evaluation of Selected Mutual Funds in India. Paper Presented at 9th Capital Markets Conference. Indian Institute of Capital Markets, Mumbai.
9. Dhimen Jani & Rajeev Jain (2013) Mutual Fund Portfolio Activity, Performance and Market Impact. Journal of Finance.
10. S. M. Tariq Zafar, D.S. Chaubey & Syed Imran Nawab Ali, (Feb 2012) Performance Evaluation of Mutual Fund Schemes in India: An Empirical Study. Finance India.
11. 14. Sandeep Bansal, Deepak Garg & Sanjeev K Saini (2012) Investors' Awareness and Perception About Mutual Funds. Zenith International Journal of Multidisciplinary Research.
12. Surender Kumar Gupta & Sandeep Bansal (2012) Performance Evaluation of Mutual Funds in India. Journal of Narsee Monjee Institute of Management and Research
13. Manner, B. Raja & Reddy B. Ramachandra (2012). Mutual Fund Performance: A Synthesis of Taxonomic and Methodological Issues. IIMB Management Review.
14. Ashok Khurana & Kavita Panjwani (2010) Mutual Fund Performance: An Evaluation of Select Growth Funds in India. South Asian Journal of Management.
15. Sharpe, William F (1966) Mutual Fund Performance. The Journal of Business.

16. Treynor (1965) How to Rate the Management of Investment Funds. Harvard Business Review.
17. Treynor & Mazuy (1966) Can Mutual Funds Outguess the Markets. Harvard Business Review.
18. V. Sasikala & A. Lakshmi (Jan 2014) Mutual Fund Objectives: Do They Provide a Useful Guide to investors. Journal of Financial and Strategic Decisions.