

An Empirical Study on the Performance of Select Large Cap Equity Mutual Funds in India

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ABSTRACT

Since the opening up of the economy in the early 1990s, Indian mutual fund industry has witnessed fabulous quantitative growth. Funds which invest a larger proportion of their corpus in companies with large market capitalization are called large cap funds. Actively managed funds make use of a human element, such as a single manager, co-managers or a team of managers, to actively manage a fund's portfolio. The main objective of the study is to analyse the performance of select actively managed large cap equity funds in the line of risk-return parameters. This study is based on fourteen funds from twelve Asset Management Companies. All the funds are ranked under seven performance measures, namely, fund return, fund standard deviation, Sharpe Ratio, Treynor Ratio, return from systematic investment plan (SIP), Jensen Alpha, and RSQ, for five different time periods of 1-year, 3-year, 5-year, 7-year, and 10-year.

Keywords: *Actively Managed Funds, Large Cap Funds, Mutual Fund, SIP.*

1.0 Introduction

Since the opening up of the economy in the early 1990s, the Indian mutual fund industry has witnessed fabulous quantitative growth due to favourable economic and demographic factors and investor-friendly regulatory environment. Assets under Management (AUM) of the Indian mutual fund industry have grown from Rs. 9.02 trillion in March 2014 to Rs.11.70 trillion in January 2015. The share of equity oriented schemes in mutual fund assets has been growing since March 2014, increasing from 22% to 30% in January 2015. Individual investors account for about 46% and Institutional investors account for 54% of the mutual fund assets. Individual investors primarily hold equity oriented schemes; while institutions hold liquid and debt oriented schemes (amfiindia.com).

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In India, an equity fund must invest at least 65% in domestic (Indian) equity. Diversified equity funds invest in the stocks of companies belonging to different sectors and industries. However, investment pattern of these funds may differ because of the perception of different fund managers. Some funds may prefer to invest entirely in large-cap stocks; while some may invest in large-cap as well as in mid-cap stocks. Again, some may prefer to take more risk by investing the major portion in mid-cap and small-cap stocks.

There are a plethora of mutual funds available in the Indian market. Funds which invest a larger proportion of their corpus in companies with large market capitalisation are usually known as large cap funds (economictimes.indiatimes.com). Large cap funds are reasonably safe, easy to understand, less volatile to market swings, and have predictable returns compared to other diversified equity funds. Such funds tend to mirror the performance of the economy and are geared to handle market cycles better. Unlike mid- and small-cap stocks that may not last through a long down market cycle, large-caps have the size and scale to weather the bad market phase (Research Desk, Value Research India Pvt. Ltd, 2013).

Actively managed funds make use of a human element, such as a single manager, co-managers or a team of managers, to actively manage a fund's portfolio. Active managers generally rely on analytical research, forecasts, and their own judgement and experience in making investment decisions on what securities to buy, hold and sell. The opposite of active management is called passive management, better known as "indexing" (investopedia.com).

2.0 Review of Literature

Research on performance of mutual funds mainly centres around the question as to whether or not mutual funds outperform the market or the benchmark. The findings of renowned researchers like Sharpe (1966) and Jensen (1968) reveal that, on a risk-adjusted basis, mutual funds underperform the market. Chang and Lewellen (1985) have found that mutual fund portfolios did not outperform a passive buy-and-hold portfolio strategy. Quigley and Sinquefeld (2000) have shown that UK fund managers in aggregate are not able to outperform the market. With regard to persistence in performance, they have noticed that losers repeat but winners do not. Further, in the small company unit trusts segment, the failure of fund managers is persistent and reliable. Malkiel (2005) has shown that professional investment managers, both in the U.S. and abroad, do not outperform their index benchmarks. However, researchers like Ippolito (1989) and Grinblatt and Titman (1992) have noticed some evidence of superior

mutual fund returns. Moskowitz (2000) has shown that active management is able to beat passive indexes by as much as 6% during recessionary periods. Similar results were observed by Kosowski (2006). But many studies have depicted poor performance by active funds during market downturns. Two such studies are that of Souza and Lynch (2012) and Pfeiffer and Evensky (2012).

Berk and Green (2004) have opined that deteriorating performance of mutual funds result from higher inflow of funds in the previous period while improved performance of funds is the result of higher outflow of funds in the previous period. Likewise, Pollet and Wilson (2008) have also stated that flow of funds is an important cause of underperformance of funds. According to them, the best ideas of fund managers are limited and inflow of more money causes them to purchase the same stocks at a higher price which results in deteriorating performance of such funds in the subsequent period. Kaura and Jayadev (1995), while examining the performance of growth-oriented schemes, have found that these schemes have not performed well at all. Chander (2000) has studied the performance of 34 mutual fund schemes from January, 1994 to December, 1997. NAV-based calculation of returns depict that many sample schemes were superior and highly volatile in comparison to BSE Sensex. Another important observation is that fund managers had poor market timing abilities.

Sharath (2004) has examined the performance of 58 mutual fund schemes during the bear period (September, 1998 to April, 2002). Findings reveal that 37 schemes had low risk, 11 schemes had above-average risk, and 10 schemes had average risk level. Swaminathan (2011) has analysed the performance of 130 open-ended mutual funds from April 2003 to March 2008. The results reveal that private sector schemes performed better than their public counterparts and growth schemes were the best schemes. In terms of diversification and stock selection, most of the chosen schemes failed to deliver additional returns. Loomba (2011) has studied the performance of large cap equity funds of Franklin Templeton Fund House from 15 September, 2010 to 15 September, 2011. It has been observed that Nifty returns outperformed the chosen scheme returns. Kumar (2012) has studied the performance of 28 diversified equity schemes in India from January 2007 to June 2011. About 60% of the schemes were able to beat the benchmark. Better performing schemes were exposed to higher risk. However, all the schemes were exposed to less risk than the market, but with a high degree of volatility. Most schemes were reasonably diversified and had less unique risk. So far as market timing is concerned, the fund managers almost failed on both counts- to book profits in the up market and accumulate stocks in the down market. Das (2013) has analysed the performance of 24 open-ended diversified equity funds from seven AMCs, namely, Birla Sun Life, Franklin Templeton, HDFC, ICICI Prudential, Reliance, SBI,

and UTI during the period between 30th September, 2002 and 30th September, 2012. Results reveal that most fund managers have superior stock picking skill, funds are defensive, funds are well diversified, most of the funds deliver satisfactory SIP return, fund size has inverse relationship with cost, and overall performance of most of the chosen funds is satisfactory in comparison to their respective benchmarks.

3.0 Research Questions

The present study endeavours to address the following research questions:

- 1) Have the funds outperformed the benchmark in terms of return?
- 2) Whether the funds have taken lesser amount of risk than the benchmark?
- 3) Have the funds generated better risk-adjusted return in comparison to the benchmark?
- 4) Do fund managers possess superior stock picking skills?
- 5) Is the return from “Systematic Investment Plan” (SIP) satisfactory?
- 6) Whether the funds are adequately diversified?
- 7) Are the funds conservative with respect to the benchmark?
- 8) How is the overall performance of the funds?

The study will address the above questions by analysing the performance of select actively managed large cap equity funds in the line of risk-return parameters.

4.0 Data Source and Research Methodology

The data are obtained from websites of Bombay Stock Exchange (BSE), AMFI website, and articles published in financial dailies, finance-based magazines and periodicals. Here, the universe of large cap funds (80) is taken from valueresearchonline.com and Mutual Fund Insight. Out of those 80 funds, index funds have been excluded. This study is based on 14 actively managed large cap diversified equity funds from 12 AMCs, namely, Baroda Pioneer, DSP Black Rock, Franklin Templeton, HDFC, HSBC, ICICI Prudential, Kotak, LIC Nomura, SBI, Sundaram, Tata, and UTI. These fourteen funds have been selected on the basis of two criteria: 1) Existence of more than ten years as on 31st December, 2014; and 2) AUM of at least INR 200 crore as on 31st December, 2014. Two funds from HDFC, two from UTI, and one each from the remaining ten AMCs meet the above norm. The chosen time period is a mixture of several bull and bear phases. The month-end NAVs, under “Growth” option, of each fund have been obtained from the official websites of the AMCs, and Blue Chip (<http://bluechipindia.co.in>). The month-end closing values of the benchmark (S&P BSE

100) have been obtained from the official websites of BSE. The S&P BSE 100 index is chosen as the benchmark because it is designed to measure the performance of the top 100 large-cap companies in India that are listed at BSE Ltd. based on size and liquidity. The monthly returns of the funds and the benchmark have been computed. The average annualised risk-free rate is taken as 8.7% for the purpose of the study. It is the rate offered by Public Provident Fund (PPF) scheme for the Financial Year 2014-15. For calculating returns from 'Systematic Investment Plan' (SIP), it is assumed that INR 1000 is invested at the end of each month at respective closing NAVs of the funds. The impact of entry load, brokerage, inflation, and exit load are not considered.

Monthly returns of the funds (R_p) and that of the benchmark (R_b) are calculated as follows:

$$R_p = [(NAV_t - NAV_{t-1}) / NAV_{t-1}] * 100$$

$$R_b = [(Value_t - Value_{t-1}) / Value_{t-1}] * 100$$

Averages of R_p and R_b are taken and annualised in order to have average annualised return figure for 1-year, 3-year, 5-year, 7-year, and 10-year time frame. Likewise, annualised Standard Deviation of the funds (SD_p) and the benchmark (SD_b) have been computed to measure total risk. Traditional measures of like Sharpe Ratio, Treynor Ratio, and Jensen alpha have been applied to understand risk-return relationship of the funds. Moreover, coefficient of determination has been used to measure the degree of diversification. Further, beta values of the funds have been computed to understand the aggressiveness or defensives of the funds with respect to the benchmark. Spearman's Rank Correlation coefficient has also been applied.

All the 14 funds are ranked under 7 (seven) performance measures that include fund return (R_p), fund standard deviation (SD_p), Sharpe Ratio of the fund (SR_p), Treynor Ratio of the fund (TR_p), return from systematic investment plan (SIP), , Jensen Alpha, and RSQ. Further, all the funds are ranked under these 7 performance measures for five different time periods of 1-year, 3-year, 5-year, 7-year, and 10-year in order to have a clear understanding of consistency in overall performance of the chosen funds. As such, there are 35 parameters (7 measures for 5 time periods = $7*5 = 35$) for analysing the performance of the chosen funds. Funds are ranked according to their performance and the fund having the highest value under a measure is ranked 1, except under standard deviation, in which case the fund having the least value is ranked 1. Fund rankings under different measures are added to arrive at the total rank score of the funds and then average of total rank score has been taken. Finally, the fund with the lowest average rank score is ranked 1 and so on.

5.0 Results and Discussion

The Fund snapshot is presented in Table 1. Table 2 shows average annualized return of the funds and that of the benchmark. Table 2 shows that most of the funds have outperformed the benchmark during different time periods. HDFCT200 is the best performer in 1-year, 7-year, and 10-year period. UTIEQ is the best performing fund in 3-year and 5-year period. SSF is the worst performing fund in 3-year, 5-year and 7-year period. HDFCLC is the worst performer in 1-year period, while LICNOEQ is the worst performing fund in 10-year period. 50% (7) funds, namely, DSPBRT100, HDFCT200, ICICIPT100, KOTAK50, SBIMEQ, TATAPEQ, and UTIEQ, have outperformed the benchmark during the entire study period.

Table 1: Fund snapshot

Fund	Launch	Net Assets (Cr)
HDFC Top 200 Fund (HDFCT200)	3-Sep-96	14416.94
Franklin India Bluechip Fund (FIBC)	1-Dec-93	6195.54
UTI Equity Fund (UTIEQ)	18-May-92	4229.09
DSP BlackRock Top 100 Equity Fund (DSPBRE100)	10-Mar-03	3756.22
UTI Mastershare Fund (UTIMS)	18-Oct-86	3159.57
ICICI Prudential Top 100 Fund (ICICIPT100)	9-Jul-98	1554.93
SBI Magnum Equity Fund (SBIMEQ)	1-Jan-91	1331.62
HDFC Large Cap Fund (HDFCLC)	18-Feb-94	1318.97
Tata Pure Equity Fund - Plan A (TATAPEQ)	7-May-98	857.87
Kotak 50 (KOTAK50)	29-Dec-98	743.92
HSBC Equity Fund (HSBCE)	10-Dec-02	692.23
Sundaram Select Focus Fund (SSF)	30-Jul-02	430.25
LIC Nomura MF Equity Fund (LICNOEQ)	15-Apr-93	324.7
Baroda Pioneer Growth Fund (BPG)	12-Sep-03	242.45

Source: www.valueresearchonline.com

Total risk, measured in terms of standard deviation (SD), is shown in Table 3. Table 3 reveals that most of the funds have outperformed the benchmark during 3-year, 5-year, 7-year, and 10-year period. In the 1-year period, 50% (7) of the Funds have performed better than the benchmark in terms of total risk.

Table 2: Average Annualised Return (%)

FUND	YEAR					RANK IN YEAR				
	1	3	5	7	10	1	3	5	7	10
BPG	39.87	23.14	10.12	9.33	19.39	2	6	12	7	4
DSPBRT100	33.43	21.70	12.17	9.74	20.09	9	9	9	5	2
FIBC	32.92	21.03	13.18	10.61	19.31	10	11	5	3	6
HDFCLC	25.21	20.75	10.00	5.94	15.40	14	12	13	12	13
HDFCT200	40.39	25.43	14.78	13.44	22.10	1	2	2	1	1
HSBCE	31.31	19.22	10.24	5.93	16.38	12	13	11	13	12
ICICIPT100	33.80	25.24	14.44	10.61	19.52	8	3	3	4	3
KOTAK50	36.56	21.47	12.31	7.83	19.16	6	10	8	10	7
LICNOEQ	36.49	23.25	11.28	6.34	15.00	7	5	10	11	14
SBIMEQ	36.71	23.58	13.64	9.35	18.72	5	4	4	6	8
SSF	30.86	18.90	8.91	5.07	18.27	13	14	14	14	9
TATAPEQ	31.70	22.07	12.45	9.30	19.34	11	8	7	8	5
UTIEQ	39.76	25.78	15.48	12.77	18.08	3	1	1	2	10
UTIMS	37.29	22.54	13.05	8.87	17.03	4	7	6	9	11
Benchmark Return	29.17	21.32	10.45	7.34	17.37					
Average	34.74	22.44	12.29	8.94	18.41					
Minimum	25.21	18.90	8.91	5.07	15.00					
Maximum	40.39	25.78	15.48	13.44	22.10					
Outperformance	13	10	10	10	10					
Underperformance	1	4	4	4	4					

Source: Computed by the author

TATAPEQ is the best performer in 1-year, 3-year, and 5-year period. HSBCE is the best performing fund in 7-year period, and UTIEQ is the best performer in 10-year period (Table 3). HDFCT200 is the worst performer in 1-year, 3-year, and 5-year period. LICNOEQ is the worst performing fund in 7-year and 10-year period. 50% (7) of the Funds, namely, FIBC, HDFCLC, KOTAK50, SBIMEQ, TATAPEQ, UTIEQ, and UTIMS, have outperformed the benchmark during the entire study period in terms of total risk.

Table 3: Annualised Standard Deviation

FUND	YEAR					RANK IN YEAR				
	1	3	5	7	10	1	3	5	7	10
BPG	14.68	17.07	18.31	25.46	24.86	12	13	13	11	11
DSPBRT100	15.57	16.77	16.56	22.50	22.50	13	12	9	4	5
FIBC	13.27	14.81	15.25	23.00	22.55	7	6	2	7	6
HDFCLC	11.88	13.44	16.04	25.07	24.41	4	2	8	9	10
HDFCT200	18.11	19.20	18.92	25.71	24.35	14	14	14	13	9
HSBCE	14.60	15.08	15.96	21.27	21.97	11	8	7	1	2
ICICIPT100	13.88	15.37	16.66	22.62	22.50	8	9	10	5	4
KOTAK50	11.56	15.00	15.60	22.70	23.05	2	7	6	6	8
LICNOEQ	13.92	15.68	17.26	28.08	27.45	9	10	12	14	14
SBIMEQ	11.59	14.39	15.51	25.59	25.27	3	4	4	12	12
SSF	14.26	15.73	16.75	25.22	25.83	10	11	11	10	13
TATAPEQ	10.41	12.09	14.14	23.01	22.72	1	1	1	8	7
UTIEQ	12.73	14.41	15.55	21.75	21.74	6	5	5	2	1
UTIMS	12.59	14.25	15.45	22.13	22.32	5	3	3	3	3
Benchmark SD	13.28	15.67	17.28	26.95	25.79					
Average	13.50	15.23	16.28	23.87	23.68					
Minimum	10.41	12.09	14.14	21.27	21.74					
Maximum	18.11	19.20	18.92	28.08	27.45					
Outperformance	7	9	12	13	12					
Underperformance	7	5	2	1	2					

Source: Computed by the author

Sharpe Ratio of the funds [$SR_p = (R_p - R_f) / SD_p$] and Sharpe ratio of the benchmark [$SR_b = (R_b - R_f) / SD_b$] are presented in Table 4. Sharpe ratio measures the excess return per unit of total risk (standard deviation). Higher Sharpe ratio implies better risk-adjusted performance of a fund. It is observed from Table 4 that most of the funds have outperformed the benchmark during different time periods in terms of risk-adjusted returns. UTIEQ is the best performer in 1-year, 3-year, 5-year, and 7-year period. HDFCT200 is the best performer in 10-year period. SSF is the worst performer in 3-year, 5-year, and 7-year period. HDFCLC is the worst performer in 1-year period, while LICNOEQ is the worst performing fund in 10-year period. 57.17% (8) funds,

namely, FIBC, HDFCT200, ICICIPT100, KOTAK50, SBIMEQ, TATAPEQ, UTIEQ, and UTIMS have outperformed the benchmark during the entire study period in terms of total risk-adjusted return.

Table 4: Sharpe Ratio

FUND	YEAR					RANK IN YEAR				
	1	3	5	7	10	1	3	5	7	10
BPG	2.12	0.85	0.08	0.02	0.43	6	10	13	8	8
DSPBRT100	1.59	0.78	0.21	0.05	0.51	11	12	9	5	2
FIBC	1.83	0.83	0.29	0.08	0.47	8	11	5	4	4
HDFCLC	1.39	0.90	0.08	-0.11	0.27	14	7	12	12	13
HDFCT200	1.75	0.87	0.32	0.18	0.55	10	8	3	2	1
HSBCE	1.55	0.70	0.097	-0.13	0.35	13	13	11	13	12
ICICIPT100	1.81	1.08	0.34	0.08	0.48	9	3	2	3	3
KOTAK50	2.41	0.85	0.23	-0.04	0.45	3	9	8	10	6
LICNOEQ	2.00	0.93	0.15	-0.08	0.23	7	6	10	11	14
SBIMEQ	2.42	1.03	0.32	0.03	0.40	2	4	4	7	9
SSF	1.55	0.65	0.01	-0.14	0.37	12	14	14	14	11
TATAPEQ	2.21	1.11	0.27	0.03	0.47	5	2	7	6	5
UTIEQ	2.44	1.19	0.44	0.19	0.43	1	1	1	1	7
UTIMS	2.27	0.97	0.28	0.01	0.37	4	5	6	9	10
Benchmark Sharpe Ratio	1.54	0.81	0.10	-0.05	0.34					
Average	1.95	0.91	0.22	0.01	0.41					
Minimum	1.39	0.65	0.01	-0.14	0.23					
Maximum	2.44	1.19	0.44	0.19	0.55					
Outperformance	13	11	10	10	12					
Underperformance	1	3	4	4	2					

Source: Computed by the author

Table 5 shows the figures of Treynor ratio of funds [$TR_p = (R_p - R_f) / \text{Beta}_p$] and that of the benchmark [$TR_b = (R_b - R_f) / \text{Beta}_b = (R_b - R_f)$ since $\text{Beta}_b = 1$]. Table 5 shows more or less similar result as that of Table 4. Here also, the best performing and the worst performing funds are the same in different time periods. Further, most of the funds have outperformed the benchmark during different time periods. Here, 50% (7)

funds, namely, HDFCT200, ICICIPT100, KOTAK50, SBIMEQ, TATAPEQ, UTIEQ, and UTIMS, have outperformed the benchmark throughout the study period in terms of Treynor Ratio.

Table 5: Treynor Ratio

FUND	YEAR					RANK IN YEAR				
	1	3	5	7	10	1	3	5	7	10
BPG	27.66	12.38	1.34	0.64	11.07	6	10	13	8	8
DSPBRT100	20.69	11.47	3.70	1.22	12.83	11	12	9	5	2
FIBC	22.53	12.18	5.11	2.15	11.77	8	11	5	4	5
HDFCLC	17.18	13.45	1.43	-2.84	6.95	14	7	12	12	13
HDFCT200	22.24	12.94	5.72	4.82	13.91	10	8	3	2	1
HSBCE	19.72	10.20	1.67	-3.38	8.92	12	13	11	13	12
ICICIPT100	22.32	16.03	5.98	2.19	12.15	9	3	2	3	3
KOTAK50	30.13	12.82	4.08	-1.00	11.59	2	9	8	10	6
LICNOEQ	25.37	13.49	2.56	-2.19	5.89	7	6	10	11	14
SBIMEQ	29.95	15.19	5.54	0.65	10.22	3	4	4	7	9
SSF	19.48	9.41	0.22	-3.80	9.54	13	14	14	14	10
TATAPEQ	28.83	16.24	4.64	0.69	12.03	4	2	7	6	4
UTIEQ	30.66	17.44	7.58	4.88	11.32	1	1	1	1	7
UTIMS	28.58	14.17	4.85	0.20	9.43	5	5	6	9	11
Benchmark Treynor Ratio	20.47	12.62	1.75	-1.36	8.67					
Average	24.67	13.39	3.89	0.30	10.54					
Minimum	17.18	9.41	0.22	-3.80	5.89					
Maximum	30.66	17.44	7.58	4.88	13.91					
Outperformance	11	9	10	10	12					
Underperformance	3	5	4	4	2					

Source: Computed by the author

Table 6 shows Spearman's Rank correlation between Sharpe Ratio and Treynor Ratio. There is a high positive rank correlation coefficient between Sharpe Ratio and Treynor Ratio and significant too. Such a high positive rank correlation coefficient between Sharpe Ratio and Treynor Ratio signifies that funds are adequately diversified.

Table 6: Rank Correlation between Sharpe Ratio and Treynor Ratio

	Sharpe Ratio					Treynor Ratio				
	1Y	3Y	5Y	7Y	10Y	1Y	3Y	5Y	7Y	10Y
Sharpe Ratio	1	1	1	1	1	-	-	-	-	-
Treynor Ratio	0.990*	0.999*	0.998*	0.998*	0.997*	1	1	1	1	1

*Correlation is significant at the 0.01 level (2-tailed).

Source: Computed by the author

Table 7 presents Jensen alpha values [$R_p - \{R_f + \text{Beta}_p * (R_b - R_f)\}$]. Table 7 shows that most of the funds have exhibited positive alpha values during different time periods.

Table 7: Jensen Alpha

FUND	YEAR					RANK IN YEAR				
	1	3	5	7	10	1	3	5	7	10
BPG	9.54	0.98	-0.41	1.90	2.66	5	10	13	7	7
DSPBRT100	2.01	-0.08	1.85	2.15	4.03	11	12	9	5	2
FIBC	4.10	0.62	2.97	3.06	3.14	9	11	5	3	5
HDFCLC	-0.95	1.73	-0.26	-1.51	-1.30	14	7	12	12	13
HDFCT200	4.40	1.65	4.22	6.01	5.39	8	8	2	1	1
HSBCE	0.83	-1.31	-0.04	-1.72	0.55	13	13	11	13	12
ICICIPT100	4.01	4.61	4.09	3.02	3.48	10	2	3	4	3
KOTAK50	10.74	1.44	2.10	0.25	2.97	3	9	8	10	6
LICNOEQ	7.15	2.18	0.86	-0.97	-2.63	7	6	10	11	14
SBIMEQ	10.77	3.63	3.41	1.92	1.88	2	4	4	6	9
SSF	0.85	-2.14	-1.44	-2.40	1.25	12	14	14	14	10
TATAPEQ	7.89	3.96	2.37	1.74	3.27	6	3	7	8	4
UTIEQ	12.03	5.78	5.24	5.14	2.46	1	1	1	2	8
UTIMS	9.72	2.63	2.81	1.27	1.02	4	5	6	9	11
Average	5.94	1.84	1.98	1.42	2.01					
Minimum	-0.95	-2.14	-1.44	-2.40	-2.63					
Maximum	12.03	5.78	5.24	6.01	5.39					
>0	13	11	10	10	12					
<0	1	3	4	4	2					

Source: Computed by the author

UTIEQ is the best performer in 1-year, 3-year, and 5-year period. HDFCT200 is the best performing fund in 7-year and 10-year period. SSF is the worst performer in 3-

year, 5-year, and 7-year period. HDFCLC is the worst performer in 1-year period, while LICNOEQ is the worst performing fund in 10-year period. 57.17% (8) funds, namely, FIBC, HDFCT200, ICICIPT100, KOTAK50, SBIMEQ, TATAPEQ, UTIEQ, and UTIMS have exhibited positive alpha values during the entire study period.

Return from SIP is presented in Table 8. Table 8 depicts that even the minimum SIP returns are in double digit for all the funds throughout the study period. It signifies that SIP is a very powerful instrument of wealth creation over a period of time. UTIEQ is the best performer in 1-year, 3-year, 5-year, and 7-year period. HDFCT200 is the best performing fund in 10-year period. HDFCLC is the worst performer in 1-year, 3-year, 5-year, and 10-year period. SSF is the worst performer in 7-year period.

Table 8: Return from SIP

FUND	YEAR					RANK IN YEAR				
	1	3	5	7	10	1	3	5	7	10
BPG	48.63	28.62	16.82	15.04	14.36	2	3	9	10	10
DSPBRT100	38.29	24.24	16.49	15.83	16.07	9	11	11	8	4
FIBC	39.31	24.53	16.81	16.83	15.85	8	10	10	5	5
HDFCLC	26.20	20.80	13.75	13.17	11.06	14	14	14	12	14
HDFCT200	43.80	29.56	19.30	18.96	18.22	7	2	3	2	1
HSBCE	30.96	22.53	14.46	12.83	12.40	13	13	12	13	12
ICICIPT100	34.74	27.68	19.71	18.11	16.17	11	4	2	3	3
KOTAK50	44.42	26.99	17.64	15.73	14.79	6	8	6	9	9
LICNOEQ	45.01	27.66	17.32	14.92	12.14	4	6	7	11	13
SBIMEQ	44.48	27.35	18.56	17.67	15.33	5	7	4	4	7
SSF	31.06	22.55	14.02	12.42	12.51	12	12	13	14	11
TATAPEQ	37.42	25.10	17.18	16.50	15.45	10	9	8	7	6
UTIEQ	48.72	30.97	21.42	20.18	17.44	1	1	1	1	2
UTIMS	45.23	27.67	18.26	16.74	14.90	3	5	5	6	8
Average	39.88	26.16	17.27	16.07	14.76					
Minimum	26.20	20.80	13.75	12.42	11.06					
Maximum	48.72	30.97	21.42	20.18	18.22					

Source: Computed by the author

Table 9 shows the values of co-efficient of determination. It is observed from Table 9 that all the funds have exhibited RSQ value in excess of 0.8 during the entire

period of study. Further, all the funds have exhibited RSQ value in excess of 0.9 in 5-year and 7-year period. In 1-year, 3-year, and 10-year period, most of the funds have exhibited RSQ value in excess of 0.9. So, it can be said that fund managers are successful in reducing the unsystematic or unique risk to a great extent. FIBC is ranked one in 3-year, 7-year, and 10-year period. ICICIPT100 is ranked one in 1-year period; and LICNOEQ is ranked one in 5-year period.

Table 9: Co-efficient of Determination (RSQ)

FUND	YEAR					RANK IN YEAR				
	1	3	5	7	10	1	3	5	7	10
BPG	0.9139	0.9586	0.9712	0.9743	0.9243	11	2	2	2	11
DSPBRT100	0.8968	0.9374	0.9351	0.9446	0.9475	13	10	11	13	5
FIBC	0.9680	0.9613	0.9609	0.9755	0.9700	2	1	5	1	1
HDFCLC	0.9098	0.9085	0.9262	0.9725	0.9523	12	13	13	3	3
HDFCT200	0.9554	0.9505	0.9423	0.9610	0.9589	3	5	10	7	2
HSBCE	0.9365	0.9492	0.9630	0.9576	0.9337	7	6	4	8	9
ICICIPT100	0.9710	0.9274	0.9502	0.9563	0.9436	1	12	8	9	6
KOTAK50	0.9241	0.8793	0.9194	0.9557	0.9356	10	14	14	10	8
LICNOEQ	0.9261	0.9574	0.9727	0.9671	0.9374	9	3	1	5	7
SBIMEQ	0.9309	0.9414	0.9564	0.9700	0.9180	8	9	6	4	13
SSF	0.9407	0.9476	0.9473	0.9342	0.9191	6	7	9	14	12
TATAPEQ	0.8870	0.9321	0.9322	0.9521	0.9330	14	11	12	12	10
UTIEQ	0.9411	0.9471	0.9555	0.9548	0.8984	5	8	7	11	14
UTIMS	0.9451	0.9532	0.9656	0.9644	0.9503	4	4	3	6	4
Average	0.9319	0.9394	0.9498	0.9600	0.9373					
Minimum	0.8870	0.8793	0.9194	0.9342	0.8984					
Maximum	0.9710	0.9613	0.9727	0.9755	0.9700					
>0.8	14	14	14	14	14					
>0.9	12	13	14	14	13					

Source: Computed by the author

The Beta values of the funds are shown in Table 10. Beta values show that most of the funds are defensive during 3-year, 5-year, 7-year, and 10-year period. In 1-year period, 50% (7) funds have remained defensive than the benchmark. 50% (7) funds,

namely, FIBC, HDFCLC, KOTAK50, SBIMEQ, TATAPEQ, UTIEQ, and UTIMS have remained defensive than the benchmark during the entire study period. The overall ranking of the funds is depicted in Table 11.

Table 10: Beta of Funds

FUND	1-Year	3-Year	5-Year	7-Year	10-Year
BPG	1.06	1.07	1.04	0.93	0.93
DSPBRT100	1.11	1.04	0.93	0.81	0.85
FIBC	0.98	0.93	0.87	0.84	0.86
HDFCLC	0.85	0.82	0.89	0.92	0.92
HDFCT200	1.33	1.19	1.06	0.94	0.92
HSBCE	1.06	0.94	0.91	0.77	0.82
ICICIPT100	1.03	0.94	0.94	0.82	0.85
KOTAK50	0.84	0.90	0.87	0.82	0.86
LICNOEQ	1.01	0.98	0.99	1.02	1.03
SBIMEQ	0.84	0.89	0.88	0.94	0.94
SSF	1.04	0.98	0.94	0.90	0.96
TATAPEQ	0.74	0.74	0.79	0.83	0.85
UTIEQ	0.93	0.89	0.88	0.79	0.80
UTIMS	0.92	0.89	0.88	0.81	0.84
Average	0.98	0.94	0.92	0.87	0.89
Minimum	0.74	0.74	0.79	0.77	0.80
Maximum	1.33	1.19	1.06	1.02	1.03
>1	7	3	2	1	1
<1	7	11	12	13	13

Source: Computed by the author

6.0 Conclusion

This present provides a platform for understanding the performance of the chosen actively managed open-ended large cap diversified equity funds of different AMCs. Such an analysis is expected to help all the stakeholders associated with mutual funds industry in India in arriving at decisions.

Based on research questions and the empirical findings, the conclusions of the study can be summed up as follows:

(i) It is evident from average annualised return (Table 2) that most of the funds have outperformed the benchmark during different time periods.

Table 11: Overall Ranking of the Mutual Funds

FUND	TOTAL	AVERAGE (TOTAL / 35)	RANK
UTIEQ	122	3.49	1
ICICIPT100	178	5.09	2
HDFCT200	181	5.17	3
SBIMEQ	207	5.91	4
UTIMS	207	5.91	4
FIBC	209	5.97	6
TATAPEQ	232	6.63	7
KOTAK50	271	7.74	8
BPG	285	8.14	9
DSPBRT100	289	8.26	10
LICNOEQ	316	9.03	11
HSBCE	372	10.63	12
HDFCLC	383	10.94	13
SSF	423	12.09	14

Source: Computed by the author

(ii) From annualised standard deviation (Table 3) it is quite clear that most of the funds have outperformed the benchmark during 3-year, 5-year, 7-year, and 10-year period. In 1-year period, 50% (7) funds have performed better than the benchmark in terms of total risk.

(iii) It is observed from Sharpe Ratio (Table 4) that most of the funds have outperformed the benchmark during different time periods in terms of total risk-adjusted returns.

(iv) Most of the funds have exhibited positive Jensen alpha values (Table 7) during different time periods. It implies that fund managers do possess superior stock-picking skills.

(v) SIP returns (Table 8) of the funds depict that even the minimum SIP returns are in double digit for all the funds throughout the study period. It signifies that SIP is a very powerful instrument of wealth creation over a period of time.

(vi) It is observed that all the funds have exhibited RSQ value in excess of 0.8 (Table 9) during the entire period of study. It signifies that unsystematic risks associated with the funds are minimised to a great extent through adequate diversification. High positive rank correlation coefficient (and statistically significant too) between Sharpe Ratio and Treynor Ratio (Table 6) also substantiates that funds are adequately diversified.

(vii) Beta values (Table 10) show that most of the funds are conservative during 3-year, 5-year, 7-year, and 10-year period. In 1-year period, 50% (7) funds have remained defensive than the benchmark.

(viii) Overall performance (Table 11) reveals that UTIEQ (1st), ICICIPT100 (2nd), and HDFCT200 (3rd) are the top three performers; whereas SSF (14th), HDFCLC (13th), and HSBCE (12th) lie at the bottom in terms of overall ranking.

7.0 Limitations of the Study

Some of the limitations of the study are enumerated below.

- (i) The period of study involves one year, three year, five year, seven year and ten year time frame ending on 31st December, 2014 while most of the funds have been in existence for much more than the chosen time frame.
- (ii) The study has considered few traditional measures to analyse the performance of the chosen mutual funds.
- (iii) Mergers and Acquisitions (M&A) between the schemes and the same between the AMCs are not taken into consideration.
- (iv) The effect of change in fund managers is not considered.

8.0 Scope for Further Research

Some of the areas which can be explored for further research are given below.

- A comprehensive study can be made between the Indian mutual fund industry and mutual fund industry of other “BRICS” countries.
- Research can be carried out on investor’s perception towards investment in equity mutual funds.
- A detailed study can be undertaken on the impact of expense ratio on actively managed equity fund performance.
- A comparative study of performance between actively managed equity funds and passively managed equity funds can be undertaken.

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