



Comparing Returns Between 'Large' and 'Mid & Small' Cap Equity Mutual Funds in India

KEYWORDS

Mutual funds, performance, mid & small-cap, large-cap, benchmark, returns

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ABSTRACT

Mutual funds are increasingly becoming popular vehicles of investments in financial markets worldwide. In this paper we attempt to test two popular beliefs w.r.t. mutual funds performance. The first belief being that the 'mid and small cap' funds provide higher returns to investors than the 'large-cap' funds. The second belief being that active management of funds by fund managers results into superior returns by funds than their respective benchmark indices. In the present study an attempt has been made to compare the performance of returns of 'large-cap' and 'mid & small-cap' equity mutual funds in India between them as well with their benchmark indices over one, three and five year time durations. In all, 40 equity open ended mutual fund schemes are selected - 22 large-cap and 18 'mid & small-cap' schemes and their annualized over last 1, 3, and 5-years are compared. It is observed that the 'mid & small-cap' schemes performed significantly better than the 'large-cap' schemes over all the three selected periods. It is also found that during all the three time durations, the average annualized returns of in both of the selected categories to be significantly superior to their respective benchmark indices.

Introduction

Mutual funds pool investor money, invest it in securities, generate returns and give it back to the investors. 'Large cap' is an abbreviation used for companies with 'large market capitalization', therefore a large cap mutual fund is one which invests larger proportion of its funds in equities of companies with large market capitalization. On the other hand, mid & small cap equity mutual funds are those which structure their portfolios with equities of companies with mid and small market capitalization. Market capitalization of a company is equal to the number of shares outstanding multiplied by the market price per share. The criteria for companies being classified as large cap or 'mid & small cap' are approximations which may vary according time.

The performance of mutual funds has been a matter of interest among professionals, investors and researchers. Actively managed funds are those which are actively managed by asset management companies. Passive fund strategy on the other hand is one in which follows the benchmark indices, like NSE NIFTY. A passive fund strategy therefore produces returns similar to those of the benchmarks.

The Indian mutual fund industry is dominated by actively managed funds; index funds occupy a smaller share of the market. Well-managed actively managed funds generally outperform the benchmarks because of market inefficiencies. However, not all actively managed funds are investment-worthy and capable of generating superior returns vis-à-vis benchmark indices.

It is therefore interesting to find out that whether active fund management has outperformed the benchmarks in Indian context or not. We attempt to evaluate this by classifying funds in 'large-cap' and 'mid & small cap' categories.

Another aspect of debate in the area of mutual fund performance is that which one of the two - 'large-cap' or the 'mid & small-cap' funds have given higher returns to their

investors in Indian mutual fund market. According to Singh (2013), in the Indian context, 'mid and small-cap' funds have given higher returns than large-cap funds during bullish market periods of 2007, 2009, 2010 and 2012. Singh argues that in a growing environment, mid and small cap stocks have more potential for growth than their larger counterparts. However, during downturns they are the ones which decline more than their large cap stocks. It is said that the element of risk is more in case of mid and small-cap funds than the large-cap stocks / funds. According to Mondal (2012), that since the universe of small cap stocks is large, finding good small cap-stocks is often difficult.

Review of Literature

In one of the earlier studies on mutual fund performance Friend *et al.* (1962) found that the average returns by mutual funds was almost similar to that delivered by the benchmark index. It concluded that since the managed funds were not able to outsmart the benchmark index, and therefore it indicated towards the presence of market efficiency in the stock markets.

Sharpe (1966) compared the performance of 34 mutual funds with the Dow-Jones industrial average over the period 1954 to 1963 employing a new reward to variability ratio - 'the sharpe ratio', which measures a portfolio's risk adjusted performance. He found the overall performance of the selected funds the funds to be inferior to Dow-Jones index.

Jensen (1968) analyzed the performance of 115 open end mutual funds over period 1945-64 and found that the funds returns gross of management expenses (i.e. not even considering their operational, research and trading expenses) were on an average not better than the considered benchmark (S&P 500) index.

Nitzsche *et al.* (2006) in a study on the performance of mutual funds in US and UK find out that there are 2-5% of funds which genuinely outperform the benchmarks, where-

as around 20-40% of funds showed inferior returns than the benchmarks.

Chakraborty *et al.* (2008) compared the performance of 40 select equity mutual funds in India on the basis of rate of return as well risk-adjusted methods with benchmark index (BSE 100) over a period of three years from 2005 to 2007, and found almost 70% of the funds to have posted superior returns compared to the benchmark.

Karrupasamy and Vanaja (2013), analyzed the performance of select large cap and 'small & mid cap mutual funds over the period 2007-2012 on the basis of returns and comparison with their respective benchmarks employing risk adjusted measures suggested by Sharpe, Treynor, and Jensen. Their study revealed that both the large-cap as well as the 'mid & small-cap' funds outperformed their respective benchmarks. It was also found that for longer time horizons the 'mid & small-cap' funds outperformed the large cap funds.

Objective of the research

1. To compare average returns of select 'large' cap equity mutual fund schemes with the benchmark CNX Nifty over the last 1, 3 and 5 year time horizons.
2. To compare average returns of select 'mid & small' cap equity mutual fund schemes with the benchmark 'CNX Midcap' and 'S&P BSE Mid Cap' over the last 1, 3 and 5 year time horizons.
3. To compare the average returns between select 'large' and 'mid & small' cap equity mutual fund schemes in India over 1, 3 and 5 year time horizons.

Research Hypothesis

On the basis of above discussion and the stated objectives, we outline and attempt to test the following hypothesis:

Ho1: There is no significant difference between the average annualized returns (%) of 'large' and 'mid & small' cap equity mutual fund schemes in India over the last 1-year time horizon.

Ho2: There is no significant difference between the average annualized returns (%) of 'large' and 'mid & small' cap equity mutual fund schemes in India over the last 3-year time horizon.

Ho3: There is no significant difference between the annualized average returns (%) of 'large' and 'mid & small' cap equity mutual fund schemes in India over the last 5-year time horizon.

Research methodology

To achieve our stated objectives, we collect data on returns (%) of 22 'large cap', and 18 'mid & small cap' equity mutual fund schemes in India over 1, 3 and 5 year time horizons. The data is collected from the website of 'value research online'. Judgment sampling method is adopted to select equity schemes in the two stated categories, with star ratings by 'value research' and 'net assets' (of the scheme) in excess of Rs. 100 crores being the qualifying criteria.

To perform the comparisons we employ the following statistical measures (pertaining to returns): minimum, maximum, range, average (mean), and standard deviation. Further hypothesis testing is performed using t-test on the annualized returns (%) of the selected two different types of open-ended equity schemes operating in India – the 'large' and the 'mid

& small' cap equity mutual fund schemes.

Results of the testing of the hypothesis

Ho1: There is no significant difference between the average annualized returns of 'large' and 'mid & small' cap equity mutual fund schemes in India over the last 1-year time horizon.

We apply the two sample t-test for population mean of returns (independent samples, unequal variances) to test our aforesaid hypotheses. For 1, 3, and 5 year time horizon, we get the following results as shown in Table 1, 2 and 3 respectively:

Table 1: Two-Sample t-test for means assuming Unequal Variances (Last 1-year returns %):

	(Large Cap)	(Mid & Small Cap)
Mean	44.43136364	80.50611111
Variance	18.18389805	190.5516369
Observations	22	18
Hypothesized Mean Difference	0	
Df	20	
t Stat	-10.67845159	
P(T<=t) one-tail	5.18752E-10	
t Critical one-tail	1.724718218	
P(T<=t) two-tail	1.0375E-09	
t Critical two-tail	2.085963441	

Interpretation: Since p value of 1.0375E-09 is less than alpha (0.05), we reject our Null hypothesis (Ho1) and conclude that based on sample data collected we have evidence that on an average the last 1-year returns (%) of 'Large cap' and 'mid & small cap' equity schemes operating in Indian mutual fund space are significantly different at 5% level of significance. And that the last 1-year annualized return (%) of 'mid & small cap' equity schemes was better than that of the 'Large cap' equity schemes.

Ho2: There is no significant difference between the average annualized returns of 'large' and 'mid & small' cap equity mutual fund schemes in India over the last 3-year time horizon.

Table 2: Two-Sample t-test for means assuming Unequal Variances: (Last 3-year returns %)

	(Large Cap)	(Mid & Small Cap)
Mean	19.59273	29.81059
Variance	3.377745	13.87857
Observations	22	17
Hypothesized Mean Difference	0	
df	22	
t Stat	-10.3751	
P(T<=t) one-tail	3.08E-10	
t Critical one-tail	1.717144	
P(T<=t) two-tail	6.15E-10	
t Critical two-tail	2.073873	

Interpretation: Since p value of 6.15E-10 is less than alpha (0.05), we reject our Null hypothesis (Ho2) and conclude that based on sample data collected we have evidence that on an average the last 3-year returns (%) of 'Large cap' and 'mid & small cap' equity schemes operating in Indian mutual fund space are significantly different at 5% level of significance. And that the last 3-years annualized return (%) of 'mid & small cap' equity schemes was better than that of the 'Large cap' equity schemes.

Ho3: that there is no significant difference between the average annualized returns of 'large' and 'mid & small' cap equity mutual fund schemes in India over the last 5-year time horizon.

Table 3: Two-Sample t-Test for means assuming Unequal Variances: (Last 5-year returns %)

	(Large Cap)	(Mid & Small Cap)
Mean	13.80286	21.90813
Variance	3.493111	10.64735
Observations	21	16
Hypothesized Mean Difference	0	
Df	22	
t Stat	-8.88707	
P(T<=t) one-tail	4.93E-09	
t Critical one-tail	1.717144	
P(T<=t) two-tail	9.87E-09	
t Critical two-tail	2.073873	

Interpretation: Since p value of 9.87E-09 is less than alpha (0.05), we reject our Null hypothesis (Ho2) and conclude that based on sample data collected we have evidence that on an average the last 5-year annualized returns (%) of 'Large cap' and 'mid & small cap' equity schemes operating in Indian mutual fund space are significantly different at 5% level of significance. And that the last 5-years annualized returns (%) of 'mid & small cap' equity schemes was better than that of the 'Large cap' equity schemes.

Findings

1. In case of large cap equity schemes we find that the average returns of the sampled 22 schemes were superior over the benchmark CNX Nifty over all of the three considered time horizons, i.e. 1, 3 and 5 years. This can be seen in Table 4 below:

TABLE 4: Annualized Return (%)

SCHEME TYPE / BENCHMARK INDEX	1-Year	3-Year	5-Year
AVERAGE (MEAN) RETURNS OF SELECTED LARGE CAP SCHEMES	44.43	19.59	13.80
CNX NIFTY	34.74	16.35	11.68
MAXIMUM RETURN (%)	53.21	23.32	17.01
MINIMUM RETURN (%)	35.61	15.66	9.25
NO. OF SCHEMES INCLUDED	22	22	21

2. Similarly in case of 'mid and small' cap equity schemes also we observe that the average returns of the sampled 18 schemes were much superior over both of the bench-

mark indices, namely the 'CNX Midcap' and the 'S&P BSE Mid cap' over all of the three considered time horizons, i.e. 1, 3 and 5 years. This can be seen in Table 5 below:

TABLE 5: Annualized Return (%)

SCHEME TYPE / BENCHMARK INDEX	1-Year	3-Year	5-Year
AVERAGE (MEAN) RETURNS OF SELECTED 'Mid and Small Cap' SCHEMES	80.51	29.81	21.91
CNX Midcap	57.61	17.83	11.89
S&P BSE Mid Cap	60.75	16.59	9.83
MAXIMUM RETURN (%)	102.42	37.74	26.04
MINIMUM RETURN (%)	58.98	22.70	11.64
NO. OF SCHEMES INCLUDED	18	17	16

In both of the aforesaid findings (1) & (2) we observe that the average returns of the selected schemes were much superior to the benchmark indices over all of the three different time horizons. It indicates that the considered schemes were managed better during the periods under consideration, since their average performance was better than the benchmarks. Can we generalize our sample findings for the entire population, i.e. would it be wise for an investor to invest in managed funds than to put money in index funds or the in index itself? This might need further investigation.

3. Now let us compare the average returns between select 'large' and 'mid & small' cap equity mutual fund schemes in India over 1, 3 and 5 year time horizons. This is shown in Table 6 below:

TABLE 6: Annualized Return (%)

SCHEME TYPE / BENCHMARK INDEX	1-Year	3-Year	5-Year
AVERAGE (MEAN) RETURNS OF SELECTED LARGE CAP EQUITY SCHEMES	44.43	19.59	13.80
NO. OF LARGE CAP EQUITY SCHEMES INCLUDED	22	22	21
COEFFICIENT OF VARIATION - LARGE CAP SCHEMES	9.38	9.16	13.21
AVERAGE (MEAN) RETURNS OF SELECTED 'Mid and Small Cap' SCHEMES	80.51	29.81	21.91
NO. OF 'Mid and Small Cap' SCHEMES INCLUDED	18	17	16
COEFFICIENT OF VARIATION - 'Mid and Small Cap' SCHEMES	16.66	12.12	14.42

From the above Table 6, we observe the average returns of 'mid & small' cap equity mutual fund schemes to be consistently superior over 'large cap' equity schemes over all of the three different time horizons, i.e. 1, 3 and 5 year. For an investor does it imply that it is intelligent to invest in 'mid & small' cap equity schemes rather than the 'large cap' equity schemes? In Table 6 we also see that the coefficient of variation (CV) in case of 'large cap' schemes lesser than in that in 'mid & small cap' schemes. CV measures the spread in data set as a proportion of its mean. Higher CV is an indicator of volatility in returns or in other words more risk. From the above, can we conclude that invest-

ment in 'mid & small cap' schemes is on an average much more rewarding and riskier than the 'large cap' schemes? This might also need some much deeper investigation.

Conclusion

In this work we have attempted to test two popular arguments related to investments in equity oriented mutual funds, *firstly*, that does it make sense to put money in managed equity funds, or in other words does the active mutual fund management strategy outperforms the passive fund investment strategy. *Secondly*, do 'mid & small-cap' funds provide higher returns as compared to their large-cap counterparts.

For attempting to answer the aforesaid two questions, we classified equity funds in two categories - 'large cap' funds and 'mid & small cap' mutual funds. We further selected 22 schemes in the large-cap category and 18 schemes in the 'mid & small-cap' category. Thereafter, annualized returns (%) by all the selected schemes in both the categories are obtained for the last 1, 3, and 5-years time periods. Subsequently, we test that whether in both of these categories the average annualized returns (%) was better than the annualized returns (%) of their respective benchmark indices. CNX Nifty is taken as the benchmark for the large cap funds, while the S&P BSE Midcap index is taken as that for the 'mid & small-cap' funds. Our results clearly indicate that the average annualized returns provided by the selected schemes in both the 'large-cap' and the 'mid & small-cap' categories were significantly superior to the respective benchmarks. This supports the active management hypothesis of mutual funds, i.e. the active management of funds in case of selected schemes has outperformed the benchmark index – CNX Nifty over all of the three different time durations – 1, 3, and 5 years.

Secondly, as regards comparison between returns given by 'mid & small cap' and 'large cap' mutual funds over last 1, 3 and 5 year time durations, it is found that over all the three time durations the 'mid & small cap' mutual funds have on an average given superior returns over and the 'large cap' mutual funds. This supports the popular belief that the 'mid & small-cap' funds give superior returns to investors than the large-cap funds. However, this hypothesis needs to be further tested by taking wider samples, more time durations, and different market spaces (countries) in order to substantiate it.

Annexure I: Annualized returns: Large-cap funds as on Nov 10, 2014

Fund	1-Year Return	3-Year Return	5-Year Return	Assets (Cr)
Franklin India Bluechip Fund	40.02	17.58	14.11	5,432
HDFC Index Fund - Sensex Plus Plan	40.62	18.54	13.27	122
HDFC Top 200 Fund	53.21	20.82	14.51	13,670
ICICI Prudential Focused Bluechip Equity Fund - Regular Plan	42.73	21.06	17.01	7,478
ICICI Prudential Top 100 Fund - Regular Plan	43.95	23.32	15.58	1,240
JP Morgan India Equity Fund	45.96	18.59	13.99	216
JP Morgan India Equity Fund	45.96	18.59	13.99	216
Kotak 50	42.92	18.35	12.17	675
L&T Equity Fund	51.89	19.95	15.65	2,505

L&T India Large Cap Fund	45.39	18.44	14.81	355
LIC Nomura MF Equity Fund	43.51	17.95	10.65	316
Principal Large Cap fund	48.44	20.84	13.55	322
Principal Large Cap Fund	48.44	20.84	13.55	322
SBI Magnum Equity Fund	43.01	19.72	13.98	1,259
Sundaram Select Focus Fund - Regular Plan	38.35	15.66	9.25	442
Tata Pure Equity Fund - Plan A	35.61	18.36	12.59	762
UTI Equity Fund	50.41	22.7	16.39	3,770
UTI Leadership Equity Fund	41.68	19.92	12.24	1,775
UTI Mastershare Fund	44.18	18.62	13.65	3,054
UTI Opportunities Fund	44.39	20.26	16.2	5,124
UTI Top 100 Fund	45.52	18.5	12.72	690
Axis Equity Fund	41.3	22.43		1159
Source: Value research online				

Annexure II: Annualized returns: Mid & small-cap funds as on Nov 10, 2014

Fund	1-Year Return	3-Year Return	5-Year Return	Assets (Cr)
Axis Midcap fund	78.63	31.46		710
Birla Sun life Midcap fund	69.92			1380
Birla Sun Life Pure Value Fund	100.44	30.05	21.34	324
BNP Paribas Midcap Fund	67.18	31.44	23.63	227
Canara Robeco Emerging Equities Fund - Regular Plan	101.72	34.21	26.04	151
Franklin India Prima Fund	76.49	31.23	20.49	2,400
Franklin India Smaller Companies Fund	93.04	37.74	23.56	1,312
HDFC Mid-Cap Opportunities Fund	79.96	29.41	23.98	7,925
HSBC Midcap Equity Fund	101.52	26.05	11.64	252
ICICI Prudential Value Discovery Fund - Regular Plan	79.54	32.77	23.35	6,760
IDFC Premier Equity Fund - Regular Plan	65.34	24.87	21.48	6,204
JP Morgan India Mid and Small Cap Fund	83.39	30.36	21.53	240
Reliance Equity Opportunities Fund	68.79	27.28	22.17	8,859
Religare Invesco Mid N Small Cap Fund	73.64	30.32	25.24	293
SBI Emerging Businesses Fund	58.98	22.7	22.82	1,587
SBI Magnum Global Fund	69.98	27.39	21.38	1,540

Sundaram Select Midcap Fund - Regular Plan	78.13	26.47	18.9	2,452
UTI Mid Cap Fund	102.42	33.03	22.98	1,870
Source: Value research online				

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