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A COMPARATIVE ANALYSIS BETWEEN LARGE- CAP AND MID -CAP MUTUAL FUND RETURNS

Prof. Parameshwar H.S. IFIM Business School, Bangalore parameshwar

Manish Soni* PGDM Student, IFIM Bangalore manish.*Corresponding Author

Pranjul Bajpayee PGDM Student, IFIM Bangalore pranjul.

Utkarsh Pandey PGDM Student, IFIM Bangalore utkarsh

Jayant Singh Bhadoria PGDM Student, IFIM Bangalore jayant.

ABSTRACT

Mutual Fund Investment is one of the emerging investment instrument in financial market. Investors are highly concerned about fair return from different mutual fund schemes. Present study compares absolute returns of large-cap and mid-cap funds of diversified equity Funds for different time periods. We have collected 59 large cap funds and 40 mid cap funds of different financial institutions for different time period such as 1Day, 1Week, 2Week, 1 Month, 3Month, and 6Month. We applied F-Test and T-test to test the significance difference between two sample funds returns. The result reveals that the returns from the Mid-Cap funds are greater than the return from the Large-Cap funds when the time period is less than a year but as far as long term returns are concerned the Large-Cap funds are taken into consideration for investment purposes

INTRODUCTION

A Mutual Fund is a professionally-managed investment scheme that is usually run by an Asset Management Company (ACM) that brings investors and then invest their money in stocks, bonds and other securities. The formation of Unit Trust of India in 1963 started the mutual fund industry by the Government of India and Reserve Bank of India. In 1993 the entry of private sector funds started a new period in the Indian mutual fund industry, giving the Indian investors wider varieties of fund choices. All the mutual funds are registered with SEBI to protect the interests of the investor. As an investor, they can buy mutual fund 'units', which basically represent their share of holdings in a scheme. The benefits of investing through a mutual fund is that it gives small investors access to diversified portfolios of equities, bonds and other securities, which would be quite difficult to create with a small amount of capital.

Mutual fund investment is more comprehensive, easy and flexible among other investment avenues, to cater different need of investors. The past carries the information of the future (Elton and Gruber 2011). Funds that did well in the past tend to do well in the future on a risk-adjusted basis. The rise in stock prices encouraged investors to book profits and shift money to debt schemes because the latter will generate healthy returns when interest rates soften, fund managers said. To get higher return comparison of return for different time horizon can help investors to take better decision. In the light with this, present study focuses on comparative absolute return analysis of two sample of Diversified Equity mutual funds namely, Large-Cap Funds & Mid-Cap Funds.

Large Cap funds are those funds which invest a larger proportion of their corpus in companies with large market capitalization. On the risk-return spectrum, large-cap funds deliver steady returns with relatively lower risk, compared to small & mid cap funds. Mid-cap equity funds are advised for investors with a higher risk tolerance than large-cap investors. You seek higher capital appreciation, with reasonably higher risk. Thus looking from investor perspective both the funds provide good opportunity to earn better. Scholars have studied the performance of mutual funds using evaluations techniques like Sharpe ratio, Treynor ratio, Jension ratio. Though there is death of research on comparison of returns obtain from mutual fund investment over a different period of time. Thus, present study investigates the return of two sample funds of diversified equity for a different time period to find the better return for the investment.

Literature Review

Jenkinson et al. (2013) examined the aggregate recommendations of consultants with a share of 90% of the consulting market. The main source of data is a series of surveys conducted by Greenwich Associates in which they were asked to rate fund managers on various measures of performance and service, and also to state the names of the fund managers they recommend to their clients for each of a number of investment styles. They analysed the influence and performance of consultants in one key area, the recommendation of investment products, and found no evidence that their recommendations add value.

Berk And Binsbergan (2013) identified that a mutual fund extracts from capital markets as the measure of skill, finding average mutual fund has used this skill to generate about $2 million per year. Our main source of data is the CRSP survivorship bias free database of mutual fund data first compiled in Carhart (1997).They show that the average mutual fund has generated value of about $2 million/year. The evidence of skill that we uncover cannot easily be attributable to luck because cross-sectional differences in skill are persistent for as long as 10 years into the future

Ammann and Verhofen (2006) analysed the behaviour of mutual fund managers with a special focus on the impact of prior performance. For the empirical analysis, they use a Bayesian Network. For the analysis, they use a complete sample about all US open-end equity funds containing 1923 funds. The data set has been provided by Reuters Lipper. Analysis extends the existing literature in a number of ways in which they do not solely focus on volatility as a measure of risk.

Haslem and shreraga (2001) determined whether Morningstar's classification of the investment styles of large-cap mutual funds as large growth, large blend, and large value is consistent with the groups and styles identified by cluster analysis.They use cluster analysis to avoid these kinds of subjectivity problems for classification and is designed explicitly to identify groups of entities sharing certain common characteristics.Cluster analysis of the Morningstar 500 style classifications (growth, blend, and value) of large-cap mutual funds identifies three homogeneous style groups: growth, and two versions of value.

Black and Szado (2016), "The fund performance analysis in this article examines funds that focus on the use of options in portfolios with broadly diversified U.S. equity holdings. Our study documents a significant growth in the number of funds available to U.S.

investors that focus on options trading, expanding from a list of five funds in 1999 to 119 in 2014. This study analyzed the equally weighted performance of 80 options-based funds that focus on use of U.S. stock index options and/or equity options during the 15-year period from 2000 through 2014. Because of benchmarking issues, funds tracking objectives such as commodity markets or global equities were excluded from the return analysis in this article. "

Blake and Morey (2000), this study examines the degree to which the well-known Morningstar rating system is a predictor of out-of-sample mutual fund performance, a critical issue given that high-rated funds receive the lion's share of investor cash inflow. We use a data set based on growth mutual funds that is free from survivorship bias and adjusted for load fees to examine the predictive qualities of the rating system. While it is relatively easy to predict inferior performance, it is much more difficult to predict superior performance.

Kothari and Warner (2001), they studied standard mutual fund performance measures, using simulated funds whose characteristics mimic actual funds. We find that performance measures used in previous mutual fund research have little ability to detect economically large magnitudes EX-three percent per year of abnormal fund performance, particularly if a fund's style characteristics differ from those of the value-weighted market portfolio.

Hubner (2007)studied the relevance of the information ratio and the alpha, two leading performance measures for multi-index models, depends on the type of portfolio held by investors. They selected a sample of US directional mutual funds data over an 11-year period, with end-of-month prices recorded from December 1993 to December 2004. Type of hypothesis of imprecision or instability —henceforth generically termed "lack of association"—postulates the absence of relationship between alternative classifications. So when it is applicable, i.e. when the required return on managed portfolios is expected to be positive, the generalized treynor ratio displays superior ranking abilities over its competitors, the alpha and the information ratio, provided that comparisons are done with proper instruments.

Sullivan and Xiong (2012) examined one possible culprit for the observed increase in market vulnerability: the rising popularity of trading passively managed assets. Dataset consisted of all the stocks on the NYSE, Amex, or NASDAQ that met our criteria over 1 January 1979–1 December 2010.They performed a robustness test by examining a smaller sample subset in which we randomly selected 500 stocks from the universe of all NYSE/Amex/NASDAQ stocks. They can infer that the ability of investors to diversify risk by holding an otherwise well-diversified U.S. equity portfolio has markedly decreased in recent decades.

Varmaini (2008)Studied for the entire period of 1994-2007 as well as the two sub periods (1994-1999 and 2000-2007) indicate that small cap funds have provided the highest risk-adjusted return for the entire period whereas growth funds have exhibited lower returns. Applied Sharpe ratio and Modigliani and Modigliani Measure for analysing data. The data for mutual funds have been retrieved from Morningstar database. The overall conclusion was that the market is not always efficient, which makes it possible for an investor or a mutual fund manager to earn higher than expected returns.

Nandhini & Rathnamani (2017) analysed the performance of a selected Equity Large cap mutual fund schemes and to study the measures of risk and return associated with selected mutual fund. Large Cap Fund - Equity mutual funds that invest more than 75% in CRISIL – defined large cap stocks for a minimum of four out of six months in each period over the last 2 years. From this study it is found that there is an impact of mutual fund flow in the Indian equity markets. Volatility and uncertainty are part and parcel of equity investing.

Narayanasamy and Rathnamani (2013) analysed financial performance of selected mutual fund schemes through the statistical parameters such as (alpha, beta, standard deviation, r-squared, Sharpe ratio) . The findings of this research study will be help investors for his future investment decisions. Different statistical and financial tools are used to evaluate the performance of these mutual fund schemes under the present study. In the ultimate analysis it may be concluded that all the funds have performed well in the high volatile market movement..

Switzer and Huang (2007) examined whether small and mid-cap fund performance is related to fund manager human capital characteristics including tenure, investment experience, education and gender. Based on a sample of 1,004 mi-cap and large-cap equity funds identified on the Morningstar database as of 31 December 2005, several statistical tests were applied which consider fund performance, risk, expenses, and turnover simultaneously. The results suggest that there are some systematic cross-sectional differences in fund performance that can be attributed to differences in managerial human capital characteristics.

Grinblatt and Titman (1994) analyzed the determinants of mutual fund performance. Tests of fund performance that employ fund characteristics, such as net asset value, load, expenses, portfolio turnover, and management fee are reported. The daily returns were compounded to calculate the monthly portfolio returns used to form and test the benchmark portfolios, as well as evaluate the performance of 109 passive investment strategies. The tests surprisingly suggest that turnover is significantly positively related to the ability of fund managers to earn abnormal returns.

Lee (2014) proved that the manners of returns generated from Large-, Mid- and Small- Cap stocks in 11 Asia countries are different and should not be ignored by international portfolio investors. They examined the country indices and three market capitalization-based market indices, such as Large, Median and Small-Cap market indices from each country in sample. After the spanning test, we then examined the returns that generating from market-based indices and their risks affected by factors of global, local or Idiosyncratic. Results indicate that when the short sale is allowed, the portfolio contains country indices and Small-Cap markets can reduce the risk majorly; while at the same time, the portfolio contains country indices and Mid-Cap markets can enhance the return more.

Cooper et al(2005) examined whether mutual funds change their names to take advantage of current hot investment styles, and what effects these name changes have on inflows to the funds, and to the funds' subsequent returns. Used the CRSP mutual funds database to create our initial cut of name change funds. To summarize our evidence, funds that have not spent much on marketing fees and that have experienced a significant drop in their fund inflows change their names to realize an increase in flows.

Bauer et al. (2004) studied the international performance and style of ethical mutual funds, by constructing a database containing the two most developed retail markets for ethical investors. The main model used in this research is a CAPM based single index model. As a result, it was found that there was no evidence of a statistically significant difference between ethical and conventional mutual fund returns keeping factors like size, book-to-market and momentum constant.

Eun et al. (2008) accessed the potential of mid-cap stocks as a vehicle for international portfolio diversification. Data-set includes monthly stock prices and returns, the number of shares outstanding for exchange listed companies and MSCI stock market indices from 10 major countries. As a result, it was found that mid-cap funds have low correlations not only with large-cap funds but also with each other. In contrast, large-cap funds tend to have relatively high correlation with each other, reflecting common exposers to global factors.

Otten and Schweitzer (2002) analysed the development and performance of the European mutual fund industry and compare it with the industry in U.S. Performance of the fund is compared by

using the traditional Structure-Conduct-Performance (SCP) paradigm. It was found that Europe is still lagging the U.S mutual fund industry when it comes to total asset size, average fund size and market importance.

Fama and French (2008) examined mutual fund performance from the perspective of equilibrium accounting. The mutual fund industry as a whole holds a portfolio much like the market portfolio, and realizes returns close to market returns, before fees and expenses. Our tests also support the inference that the cross-section of average fund returns is consistent with a world where individual fund performance, good and bad, is due to chance rather than skill. But we have only examined mutual funds.

Diether et al., (2002) analysed the role of dispersion in analysts' earnings forecasts in predicting the cross section of future stock returns. Returns are drawn from the Center for Research in Securities Prices ~CRSP! Monthly Stocks Combined File, which includes NYSE, AMEX, and NASDAQ stocks. Results clearly reject the notion that dispersion in forecasts can be viewed as a proxy for risk, since the relation between dispersion and future returns is negative.

Zhang (2006) investigates the role of information uncertainty in price continuation anomalies and cross-sectional variations in stock returns. The sample data come from three sources. Returns are from the CRSP Monthly Stocks Combine File, which includes NYSE, AMEX, and Nasdaq stocks. As a result, greater information uncertainty produces relatively lower future returns following bad news and relatively higher future returns following good news. The opposite effects of information uncertainty on stock returns following good versus bad news amplify the profitability of certain trading strategies.

Mishra & Mahajan (2005) measured the return earned by the sample mutual funds schemes and compare them for different modes of investment. Data collection is done of five open-ended equity funds selected on the basis of their large cap, mid cap and small cap inclination and sound track record of ten year performance. As a concluding remark of the research it can be said that one time growth investment Portfolio is suitable for those investor who can invest at a time for long term whereas SIP mode is suitable for investors who cannot contribute in one time mode.

Data & Methodology

The paper consists two samples, divided from the main Category of Diversified Equity Funds into Large Cap Funds and mid cap funds. The Data includes absolute returns for different time periods as 1 Day, 1 Week, 2 Week, 1 Month, 3 Months, and 6 Months. The data has been resourced from Association of Mutual Funds in India (AMFI). The Large Cap Funds includes 59 and the Mid-Cap Funds includes 40 different fund schemes from various financial institutions. Present study has employed f-test and t-test to investigate the difference between the absolute returns of the Large-Cap funds and the Mid-Cap funds. Based on the literature review that there is no difference between the absolute returns from the Large-Cap and Mid-Cap returns. Generally, investor's perception is that they find difference between the Large-Cap Fund returns and the Mid-Cap fund returns. This study tries to investigate the same.

Results and Discussion Table 1: Descriptive Statistics of Large Cap Funds

Time	Mean	Min	Max	Standard Deviation	Skewness	Kurtosis
1D	0.6499	0.1786	1.729	0.205834	2.290298	12.40573
1W	-0.6178	-1.4911	0.7841	0.450863769	0.543753233	0.41603384
2W	-3.1221	-4.5641	-1.6606	0.704283315	-0.26082	-0.26684
1M	-1.0005	-2.8964	2.0263	0.912548	0.733708	1.45305
3M	-1.2238	-4.7005	4.5893	1.654204	1.577135	3.747183
6M	-1.5173	-6.207	6.7807	2.496746045	0.682288794	1.517847004

The summary statistics reported in Table 1 reveals that the mean absolute returns of 1 Day is comparatively higher than the other time periods. The standard deviation for 6 Months period is higher as compared to the other time periods. The minimum and maximum absolute returns of different times form the part of the 6 Months' time. The value of Skewness and kurtosis reported for the variables suggest that there is non-normality in the distribution of sampled data. From the sample 2 Week time period data is negatively skewed towards the left, while others are positive, and the kurtosis is heavily tailed for the data collected of 1 Day time period.

The summary statistics reported in Table 2 reveals that the mean absolute returns of 6 Months' is comparatively higher than the other time periods. The standard deviation for 6 Months period is higher as compared to the other time periods. The minimum and maximum absolute returns of different times form the part of the 6 Months' time. The value of Skewness and kurtosis reported for the variables suggest that there is non-normality in the distribution of sampled data. From the sample 1 Month time data is negatively skewed towards the left, while others are positive, and the kurtosis is heavily tailed for the data collected of 3 Months' time period.

Table 2: Descriptive statistics of Mid Cap Funds

	Mean	Min	Max	Standard Deviation	Skewness	Kurtosis
1D	0.710805	0.1508	1.3366	0.043566	-0.01464	-0.14889
1W	-0.79101	-1.8388	0.3894	0.56359	-0.03294	-0.74814
2W	-2.85713	-4.0236	-0.4269	0.794215	0.856942	0.967536
1M	0.597108	-1.2948	2.25	1.008202	-0.15046	-1.28357
3M	1.523795	-2.9657	11.0296	2.875914	1.110825	1.738036
6M	8.6119375	-1.0723	20.3869	4.78928741	0.258561074	0.001340538

We analysed data using T Test to investigate the difference between absolute return of large cap funds and mid cap funds. Thus, it is mandatory to identify first the equality of variance between two samples. To check the equal Variance, we have run the F-Test two sample for variance which indicates the equality between them. If P value is less than 0.05, suggests there is unequal variance among two samples. In our study we found 1D, 3M and 6M to be unequal while others are having equal variance. Thus we categorise three different time set to perform the T-test for equal variance (1W, 2W, 1M) and unequal variance (1D, 3M, 6M).

Table 3 shows the result of T-Test for equal variance, comparing the values of the 1W, 2W and 1M timeline at 5% significance level in the output. It is observed from the table that only 1M returns are significant while p values of 1W and 2W (0.09, 0.08) are greater than the 0.05 which shows there is no difference between the return of large cap and mid cap mutual funds. While comparing the t-critical value in the output on the worksheet with the t-value listed. The t-value is smaller than the t-critical value, hence it states that for different time periods there are different returns and the investment depends on the investor's choice.

Table 3: T –Test of Equal variance

Particular	1W		2W		1M	
Mean	-0.6178	-0.7910	-3.1221	-2.8571	-1.0005	0.5971
Variance	0.2032	0.3176	0.4960	0.6307	0.8327	1.0164
Pooled variance	0.24925608		0.550198		0.906614	
t Stat	1.693944651		-1.74447		-8.19218	
P(T<=t) one-tail	0.046742299		0.042122		5.23E-13	
t Critical one-tail	1.66071461		1.660715		1.660715	
P(T<=t) two-tail	0.093484597		0.084244		1.05E-12	
t Critical two-tail	1.984723186		1.984723		1.984723	

Table 4 shows the result of T-Test for unequal variance, comparing the values of 1D, 3M and 6M the timeline at 5% significance level in the output. It is observed from the table that P values of 1D return is (0.21) which is greater than significance level thus not significant while p values of 3M and 6M are significance, which shows there is no difference between the return of large cap and mid cap mutual funds of 1D return.

Table 4: T-test of Unequal Variance

Particular	1D		3M		6M	
Mean	0.6498	0.7108	-1.2238	1.5237	-1.5173	4.6916
Variance	0.0423	0.0759	2.7363	8.2708	6.2337	16.3748
Pooled variance	0.0558		4.9615		10.3110	
t Stat	-1.2583		-6.0225		-9.4412	
P(T<=t) one-tail	0.1056		1.54E-08		1.07946E-15	
t Critical one-tail	1.6607		1.6607		1.6607	
P(T<=t) two-tail	0.2112		3.07E-08		2.15892E-15	
t Critical two-tail	1.984		1.9847		1.9847	

CONCLUSION

Mutual fund investment is one of the prominent instrument in financial market. As couple of study suggest the performance of mutual fund in different categories, but it ignores the consideration of time. In This Paper we investigated the different time period with size of market cap considering Diversified equity funds. In the light of the investor's interest present study has considered Large-Cap funds and the Mid-Cap funds and Absolute return of different time period. By using the f-test and the t-test analysis both the samples were analysed and found that the returns from the Mid-Cap funds are greater than the return from the Large-Cap funds when the time period is less than a year but as far as long term returns are concerned the Large-Cap funds are taken into consideration for investment purposes.

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