International Journal of Advance and Applied Research
www.ijaar.co.in
ISSN – 2347-7075 Impact Factor – 7.328
Peer Reviewed Bi-Monthly
Vol.10 No.6 July – August 2023

Mutual Funds In India: Comparative Analysis Between Small-Cap And Mid-Cap Mutual Funds

Debasish Biswas
Assistant Professor in Commerce, Ramnagar College, Depal, East Medinipur.
Corresponding Author - Debasish Biswas
DOI - 10.5281/zenodo.8364505

Abstract:
Mutual funds today can contribute significantly to the expansion of India's financial sector. Stock market is also part of Indian financial sector. Without proper market expertise, it is difficult for investors to place their own funds in the stock market. They can use mutual funds to invest their own money in the stock market. A mutual fund is a trust that pools money from several investors who share a common financing goal. The money is then invested in stocks, bonds, cash market instruments, and other securities by fund manager. Units, which are a portion of the holdings of the fund, are owned by each investor. By determining a scheme's net asset cost, the earnings or profits from this collective funding are distributed proportionately among the traders after subtracting positive expenses. This study examines the performance evaluation of mutual funds in India with a focus on small-cap and mid-cap funds. Samples of 20 funds, with 10 of each, are used to examine the performance of the chosen Indian mutual funds during an eight-year period between January 1, 2015, and December 31, 2022. Various Statistical tools like Beta, Standard deviation, Sharpe, Treynor, and Jenson Alpha are employed in both performance evaluation and data analysis. We can draw the conclusions that, of all the financial vehicles, mutual funds provide investors with the lowest risk and highest return.

Keywords: Small-cap mutual funds, Midcap mutual funds, Performance evaluation, Sharpe Ratio, Treynor's Ratio, Jenson Alpha, Risk and Return.

Introduction:

A mutual fund is a trust that pools money from several investors who share a common financing objective. The money is then invested in stocks, bonds, cash market instruments, and other securities. Units, which are a portion of the holdings of the fund, are owned by each investor. By determining a scheme's net asset cost, the earnings or profits from this collective funding are distributed proportionately among the traders after subtracting positive expenses. Small-cap companies are those with a market valuation of less than Rs. 5000 crores and ranked from the 251st position onwards. These companies are incredibly tiny in length and have significant growth potential and giving character traders an advantage over institutional investors .This is because institutional investors prefer to purchase large-cap shares due to their balance, whereas investors seeking competitive returns will invest in small price range.

The mutual funds that hold stocks from the small cap are called small cap fund. Medium-cap companies, which have a market cap of Rs. 5000 crores and less than Rs. 20,000 crores. Small-cap and large-cap companies are determined by multiplying market capital by the number of shares in the company. Mid-cap price range enables traders to maintain a diverse portfolio of those share types without issues or at a reasonable cost. Mid-cap shares often tend to offer traders more increase ability than large-cap shares while having significantly less volatility and risk than small-cap shares. Small and mid cap funds have growth potential than large-cap funds.

Need of the Study:

Institutions that manage mutual funds are contributed significantly to economic growth. In many developed nations, a reliable mutual fund is essential for economic expansion. By comparing the performances of different mutual funds, it is possible to comprehend in depth that enables one particular mutual fund to generate a higher return than others. Additionally, by analyzing performance, investors can get knowledge of market trends and get various recommendations for further investment to investors regarding their investment in various funds. On other way, examining the performance of different mutual funds in the small-cap and mid-cap sectors, we may make inferences about the markets that offer the greatest potential for gains and returns. Later, investors can assess the numerous risks connected to their investment in a specific mutual fund. As a result, investors may make an informed choice by researching the performance of different mutual funds in India and learning about their current costs, risks, and returns.

Review of Literature:

Abdelkadev Etal. (2020), the success of excellent multi-capital and large-cap investments in India over the course of five years, from 2013 to 2018, is objectively investigated in this study. This study demonstrates that mutual fund schemes that fall below the aforementioned classes have produced returns over the long term with manageable risk. As a result, we can conclusively state that a multi- and large-capital budget is an excellent funding option for investors. Investors, traders, speculators, and budget managers are the target audiences for these empirical studies. **Deepa & Ramasubbian, 2019**, it primarily focuses on the risk and returns performance of chosen equity funds. The objective is to use statistical measures like Jenson, alpha, and standard deviation among others to assess the financial performance of the programmers. Ten of the 15 funds studied in this study performed well despite the market's extreme volatility. This study came to the conclusion that understanding a fund's risk ratio is important before investing since it enables investors to make wise choices. As a result, we can draw the conclusion that factors other than NAV and total returns, such as the Sharpe ratio, Jenson Alpha, and beta should be taken into account while investing in mutual funds in order to guarantee mutual funds' consistent performance. **Joydev(1996),** had analyzed the performance of two schemes from June 1992 to March 1994 on the basis of risk, return and other parameters. He found that those schemes failed to produce more return than market return, these schemes were not good for the investors' point of view. **Kundu (2009)** had analyzed an attempt to evaluate the stock picking performance of the mutual fund managers in India using related time models and to trace out the adjust of different in the ranking of the schemes across these selectivity measurement criteria .He found that over the period, mutual fund schemes on an average have failed to outperformance the market even after taking a risk that of the market. **Lalshah (2021)**, the performance of the constant-earnings mutual fund range is explained by this study. Here is an example of a Canadian constant profits budget before, during, and after the global financial crisis of 2008. It has been shown that traders are looking for ways to diversify their systematic risks after the recession. Extra returns in the Canadian constant-earnings price range. **Maheswari (2021),** the corporate sector has proven to be more profitable than the national sector as can be seen. This has been made possible by the corporate sector's rapid technological advancement, the launch of new programmers and perks for clients, etc. Additionally, digitalization has contributed to the corporate sector's rapid growth. **Mohan and Prasad (2016),** they can draw the conclusion that making investments in the corporate sector will yield greater profits. And one can receive the best returns with the least amount of risk by investing in mutual funds. **Poornima and Sudhamashi (2013),** had analyzed the performance of selected schemes of mutual fund using Sortino ratio. This ratio measured the performance of the funds in term of downside risk .That indicated if fund produced return more than benchmarks return, these schemes has no downside risk .On the other hand, if fund produced less return than benchmark return, these schemes have downside risk.

They used 25 sample schemes of mutual fund during the period of April 2006 to March 2011 also used monthly NAV value. They had concluded and suggested that carefully choice of mutual funds after evaluating their associated return and risk using suitable measure will surely provided the investors with attractive return. **Ratisgh & Shruti (2017)**, According to this analysis, if investors invest in large and midcap funds for a longer length of time, they will undoubtedly see double-digit gains. Midcap funds allow investors to make larger returns despite the perceived risk involved. In the event of small investors who are interested in funding in mutual funds to obtain high returns, they should keep a beneficial ratio of mutual funds of both large and mid-cap in a portfolio. Over time, a combination of each price range can produce well-balanced and optimum profits. **Roy (2015),** had made a study on the stock selection and timing performance based on conditional as well as traditional performance of schemes of Unit trust of India(UTI).The study was measured by Jensen and Treynor and Mazuy technique to analysis the performance of mutual fund of 30 UTI securities to evaluate the market timing ability of sample mutual fund schemes. The author found that most of the fund managers of sample schemes were not able to timing the market correctly. He had concluded and suggested that return of a schemes of mutual fund is totally depends on the fund manger skill of stock selection ability that produced more amount of return. **Swaroop and Debases (2010)** had analyzed the performance of equity based mutual fund schemes in India. They compared the performance of the mutual funds schemes of public sectors and private sectors mutual fund. They found that the mutual funds were instruments of diversified choice between the many available mutual fund schemes would go a long way. **Treynor and Mazuy(1966),** The authors made a study on development a methodology for testing mutual fund funds historical successful in anticipating major turns in the stock market and found no evidence that the funds had successfully outturned the market.

Research Gap:

The majority of researchers used samples to examine the performance of mutual funds from various industries. They were unable to retain market capitalization. In other words, mutual funds with large cap, mid cap , and small cap were included in the sample. So, I wish to analysis on the basis of specific market capitalization and risk appetite because, risk and return of any mutual fund is totally depending on their market capitalization.

Objectives of the Study:

To analyze comparative performance of the selected mutual funds of small-cap and mid-cap in India majorly on risk and return basis.

Methodology of the Study:

The study mainly makes use of secondary data. Such information can be found in papers, books, publications, and websites, among other places. In this study, performance for the chosen small-cap and mid-cap mutual funds in India is analyzed over an eight-year period, from 2015 to 2022. We used data from 10 small cap mutual funds and 10 mid-cap funds for this analysis which collected randomly from various mutual funds. The data of the aforementioned organizations provides information on all the factors chosen for assessing performance for the small-cap and mid-cap mutual funds in India. The data of the aforementioned companies includes information on each of the parameters chosen for assessing the performance of small-cap and mid-cap mutual funds using the methods of beta, standard deviation Treynor's ratio, Sharpe ratio, and Jenson alpha. The data is also gathered and summarized through analysis using a risk-return grid.BSE-200 and BSE-500 had been used for the benchmark indicators.

Small-Cap Mutual Fund:

All businesses with a market capitalization of under $250 million are included in small-cap funds' investments. The value of the stocks of these companies might theoretically quickly double or even triple. It is advised that you include a small percentage of the best small-cap mutual funds in your investment portfolio to make sure you don't miss out on the gains. What matters most when it comes to small-cap funds is how they perform in stable markets or during a downturn. The top small-cap fund managers stand out during a downturn. Fund managers develop their understanding of how to invest in small-cap stocks over time.

Mid Cap Mutual Fund:

A type of equity mutual fund called a mid cap budget makes investments in the stock of mid-sized companies. According to the standards, mid-cap groups are defined as those that can be ranked between 100 and 250, mostly based on their market capitalization. A multi-cap fund is a diverse equity fund that makes investments in organizations of all sizes. A multi-cap fund's portfolio mix may also include a few blue-chip companies alongside mid-sized or even small-cap companies. Mid-cap budgets, however, can only be used to invest in mid-cap companies. Mid Cap Funds typically provide returns that outperform the market over an extended period of time. They could, however, function poorly over a short to medium period of time. In the event that they need to profit from this fund category, buyers wish to be prepared to invest.

Analysis of the Performance of the Mutual Funds:

Table-1

Performance of Mid cap mutual fund

Sl No.	Name of the mutual fund schemes	Returns	SD	Beta	Sharpe Ratio	Treynor Ratio	Jensen
1.	UTI Mid Cap Fund - Direct Plan - Growth	19.71	18.15	0.90	.75	.17	1.26
2.	SBI Magnum Midcap Fund - Direct Plan - Growth	19.87	18.11	.86	.87	.20	3.87
3.	DSP Flexi Cap Fund - Direct Plan - Growth	15.28	13.15	.86	.40	.09	-5.43
4.	Nippon India Growth Fund - Direct Plan - Growth	17.22	17.33	.92	.75	.17	1.26
5.	HSBC Mid Cap Fund - Direct Plan - Growth	18.88	18.12	.83	.50	.11	-3.31
6.	Baroda BNP Paribas Mid Cap Fund - Direct Plan - Growth	21.39	18.13	.86	.76	.17	1.43
7.	Sundaram Mid Cap Fund - Direct Plan - Growth	17.27	17.64	.93	.49	.11	-4.11
8.	Franklin India Prima Fund - Direct - Growth	17.93	17.16	.91	.50	.11	-2.85
9.	Axis Midcap Fund - Direct Plan - Growth	19.11	18.00	.80	.63	.14	-1.11
10.	DSP Midcap Fund - Direct Plan - Growth	17.44	17.15	.86	.40	.09	-5.43
	BSE 200	15.23	18.23	-	-	-	-

Sources: Authors computed value

The performance of the several mid-cap funds chosen for the study may be seen from the analysis above. Using the BSE-200 as the benchmark for all selected mutual funds, the returns are estimated annually daily NAV value of each selected schemes .Other statistical tools such as mean standard deviation, beta, Sharpe ratio, Treynor ratio, and Jensen's alpha had been used for analysis the performance.

As a result of the study above, we can see that benchmark comparisons are an important tool for assessing the performance of different mutual funds. Additionally, it shows how effective fund managers are in outperforming existing market portfolios in terms of performance for their respective holdings. From the table, we saw that all selected sample schemes produced higher return as compare with benchmark return and also produced lower risk as compare with benchmark. By carefully examining the data above, we can draw a conclusion, Baroda BNP Paribas Mid Cap Fund - Direct Plan - Growth(21.39), SBI Magnum Midcap Fund - Direct Plan - Growth(19.87), UTI Mid Cap Fund - Direct Plan - Growth(19.71) are the top three Medium Cap Mutual Funds outperformed according to the mean values and funds which are least mean value like DSP Flexi Cap Fund - Direct Plan - Growth (15.23) and Nippon India Growth Fund - Direct Plan - Growth(17.22).

The standard deviation is one of the metrics used to compare how individual mutual funds depart from the average expected return derived over a specific time period. This indicates the relatively high risk and high volatility and the higher return per unit of risk. We saw that all selected mutual fund produced lower risk as compare with benchmark risk (18.23) or market risk.

From the table, we saw that UTI Mid Cap Fund - Direct Plan - Growth (18.15) has produced higher value of stander deviation. The mutual fund with the largest SD, which was previously highlighted, also demonstrates the mutual fund's high volatility and high return per unit of risk. Also, the Standard Deviation is a measure that, based on the fund's prior performances, informs us of how much the performance of the mutual fund portfolio deviates from predicted Results. We can infer from the statistics that the companies are high risk because their predicted return varies greatly with standard deviation.

A mutual fund's Treynor's ratio typically indicates how much more money it makes than risk-free funds that are leaving the market. The Treynor ratio also known as the reward to volatility ratio, is a performance matrix for determine how much excess return was generated for each unit of risk taken or by a portfolio. Excess return in this sense reforms to the return earned above the return that could have with a higher and positive Treynor ratio implies that the fund has a better risk adjusted return than that of another fund with a lower Treynor ratio. From the study we saw that all selected sample schemes have produced positive Treynor’s value but which is not good for the investors because the values are not more than one Thus, we can say from the above table that all companies are performing well in terms of returns as compared to risk-free bonds in the market.

The Sharpe Ratio often indicates the potential returns on investment for higher-risk mutual funds. In a mathematical expansion of the insight that excess return over a period of time may slightly more volatility and risk rather than investing skill. A higher and positive ratio is better when comparing similar portfolio. The higher a funds Sharpe ratio the better in return have been relative to the amount of investment risk taken. We saw from the study that all selected sample schemes have produced positive value of Sharpe ratio but all value are below one that means all sample schemes performed are not bad but higher value which is more than one is quietly acceptable.

Jensen measure is one of the ways to determine if a positive is easing the proper return for its level of risk. If the value is positive then the portfolio is earning excess return. In other words, a positive value for Jensen alpha means a fund manager has beat the market with their stock picking skills. From the study we saw that only 4 selected sample schemes have produced positive value of Jensen alpha but rest of the schemes produced negative value of alpha that means these selected schemes fund manager did not have any stock picking skills.

This leads us to the conclusion that organizations with ratios that are much higher across the board should be taken into account when making investment decisions.

Table-2

Performance of Small cap mutual							
Sl.No.	Name of the mutual fund schemes	Returns	SD	Beta	Sharpe Ratio	Treynor Ratio	Jensen
1.	Nippon India Small Cap Fund - Direct Plan - Growth	26.12	14.43	.92	1.09	.25	8.31
2.	DSP Flexi Cap Fund - Direct Plan - Growth	15.28	20.23	.87	.96	.15	3.97
3.	HDFC Small Cap Fund - Direct Plan - Growth	19.07	14.76	.89	.93	.22	4.79
4.	ICICI Prudential Smallcap Fund - Direct Plan - Growth	16.91	12.08	.84	.94	.22	5.07
5.	Kotak Small Cap Fund - Direct Plan - Growth	20.58	13.66	.78	1.08	.26	7.33
6.	Franklin India Smaller Companies Fund - Direct - Growth	20.31	16.67	.87	.79	.19	2.94
7.	DSP Small Cap Fund - Direct Plan - Growth	22.30	11.16	.84	.95	.22	5.00
8.	Sundaram Small Cap Fund - Direct Plan - Growth	18.07	14.64	.87	.87	.20	3.62
9.	Aditya Birla Sun Life Small cap Fund - Direct Plan - Growth	16.46	15.44	.92	.58	.14	-2.42
10.	Quant Small Cap Fund - Direct Plan - Growth	15.98	16.55	.93	1.54	.40	6.56
	BSE 500	14.03	17.23	-	-	-	-

Sources: Authors computed value

The aforementioned analysis allows us to see the performance of various small-cap mutual funds that were selected for this paper's investigation. Using the BSE-500 as the benchmark, returns are estimated annually for all of the chosen mutual funds using descriptive statistics and risk-adjusted metrics like mean, beta, standard deviation, Treynor ratio, Sharpe ratio, and Jensen's alpha.

As a result of the study above, we can see that benchmark comparisons are an important tool for assessing how well different small-cap mutual funds have performed. Additionally, it shows how effective fund managers are in outperforming existing market portfolios in terms of performance for their respective holdings. We saw that all selected sample schemes have produced more return as compare with benchmark return and all schemes produced risk which is lower than bench mark risk excepts DPS Flexi cap fund produced risk which is more than benchmark risk. Nippon India Small Cap Fund - Direct

Plan - Growth(26.12), DSP Small Cap Fund - Direct Plan - Growth(22.30), Kotak Small Cap Fund - Direct Plan - Growth(20.58) were produced higher return.

From a Treynor and Sharpe ratio perspective, all of the chosen schemes have generated favorable risk-adjusted returns. We saw in the Sharpe ratio that three schemes gave a higher Sharpe ratio value which is more than one. These schemes offered a higher value of return and were extremely acceptable.

In Jensen alpha view point, we saw that all schemes have generated positive value of alpha except one scheme Aditya Birla Sun Life Small cap Fund - Direct Plan - Growth produced negative value of alpha. That indicated, all selected sample schemes fund manager have good stock picking skills except one.

Table-3

RISK RETURN GRID OF SMALL-CAP AND MID CAP MUTUAL FUNDS

		I	II
		$Rp \geq Rm$, $\delta p < \delta m$	$Rp \geq Rm$, $\delta p > \delta m$
Return	HIGH	UTI Mid Cap Fund - Direct Plan - Growth, SBI Magnum Midcap Fund - Direct Plan - Growth, DSP Flexi Cap Fund - Direct Plan - Growth, Nippon India Growth Fund - Direct Plan - Growth, HSBC Mid Cap Fund - Direct Plan - Growth, Baroda BNP Paribas Mid Cap Fund - Direct Plan - Growth, Sundaram Mid Cap Fund - Direct Plan - Growth, Franklin India Prima Fund - Direct - Growth, Axis Midcap Fund - Direct Plan - Growth, DSP Midcap Fund - Direct Plan - Growth, Nippon India Small Cap Fund - Direct Plan - Growth, HDFC Small Cap Fund - Direct Plan - Growth, ICICI Prudential Small cap Fund - Direct Plan - Growth, Kotak Small Cap Fund - Direct Plan - Growth, Franklin India Smaller Companies Fund - Direct - Growth, DSP Small Cap Fund - Direct Plan - Growth, Sundaram Small Cap Fund - Direct Plan - Growth, Aditya Birla Sun Life Small cap Fund - Direct Plan - Growth, Quant Small Cap Fund - Direct Plan - Growth.	DSP Flexi Cap Fund - Direct Plan - Growth
		III	IV
		$Rp < Rm$, $\delta p < \delta m$	$Rp < Rm$, $\delta p > \delta m$
	LOW		
		LOW	HIGH
	Risk		

Above table represent tradeoff between the risk and return of 20 mid cap and small cap mutual fund. We divided all selected schemes into four categories. On first categories, we highlighted higher return with lower risk. Only 19 sample scheme of small cap and mid cap mutual fund are belonging under that category. Second categories highlighted higher return with higher risk. We saw that one selected small cap mutual fund is belonging under that category. Third category represented that lower risk with lower return. But no selected schemes are belonging under that category. Fourth category represented that higher risk with lower return. But no selected schemes are belonging under that category.

Based on the study, we saw that 19 selected schemes produced higher return as compare with market return and also produced lower risk after comparing with market risk. Only one selected schemes has produced higher schemes returns and higher risk as compare with benchmark. That means all selected schemes of mutual funds were outperformed as compare with benchmark. Most of the investors are wanted to take lower risk with higher return. As a result, we may conclude that small-cap funds are often lucrative over the long and short term on the basis of risk and return. Moreover, small-cap mutual funds have larger returns than mid-cap mutual funds and also taken lower amount of risk as compare with mid cap funds risk.

Conclusion:

Based on the thorough investigation, we can say that all small- and mid-cap mutual funds have low risk and guarantee sustained, high returns by beating their peers and fostering growth. Fund houses, who act as intermediaries in the investment industry, serve as a vital source of funding for both common investors and corporations by serving as an indirect link between the public and private corporate sectors. Unlike to many other investment vehicles, mutual funds make it easier for you to build a diverse and well-balanced portfolio.

Hence, we can confidently infer that small-cap mutual funds are a viable investment option for investors who are garnering significant investment interest and have exponential development potential based on the comparison index of both mutual funds of mid-cap and small-cap.

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