

## **Performance Evaluation of Mutual Funds: A Comparative Study on Selected MidCap and SmallCap Equity Fund Schemes**

**Raja Paul**

M.Phil. Research Scholar, Dept. of Commerce, University of Burdwan,  
Burdwan, West Bengal, India

### **Abstract**

To generate extra income individuals are investing their savings through different investment mechanisms. During the past few years Mutual Funds have gained popularity as a very important investment mechanism in between the small and medium investors as it generates less risky systematic returns. Mutual funds can be segregated into three main categories namely Equity Mutual Fund, Debt Mutual Fund and Hybrid Mutual Fund. The present study tries to investigate the performance of two types of selected Equity Mutual Funds namely MidCap Equity Mutual and SmallCap Equity Mutual Fund and compare their performances as well. The study evaluates and compares the performances of 8 MidCap and 8 SmallCap Equity funds. The data set covers a period of four years (i.e., 1st January 2018 to 31st December 2021). Different statistical tools are used for the purpose of performance analysis of the selected mutual funds namely alpha, beta, standard deviation, sharpe ratio, treynor ratio and information ratio. The analysis shows that the selected mutual funds performed well over the study period but the SmallCap Equity Funds performed better than the MidCap Equity Funds. During 2021 DSP Small Cap Fund had negative beta which means it did not respond towards the changes in the market in the same way which results a negative treynor ratio during that period. The results may help the investors while making investment decisions in future. Finally, it can be said that the investors must need to consider the above-mentioned statistical tools to analyse the performance of the mutual funds apart from their Net Asset Value (NAV) and total return while making any investment decision.

**Keywords:** Mutual Fund, MidCap Equity Fund, SmallCap Equity Fund, Net Asset Value (NAV), Return, Risk, Sharpe Ratio, Treynor Ratio, Information Ratio.

**Address for Correspondence:** Raja Paul, Lecturer, Dept. of Commerce, THK Jain College, Cossipore, Kolkata, West Bengal, India. Contact no: 9804069818, e-mail: babaip7252@gmail.com

Copyright © 2022 The Author



## **Performance Evaluation of Mutual Funds: A Comparative Study on Selected MidCap and SmallCap Equity Fund Schemes**

### **Introduction:**

During the present era, industries are trying their level best to attain maximum level of customer satisfaction through their products or services. As we all know that needs of an individual are unlimited, the individuals are compelled to save a part of their earnings to satisfy some of their needs. But savings can only satisfy the short-term needs, these are not sufficient enough to satisfy the long-term needs of the individuals. To fulfil maximum amount of needs individuals are now a days investing their savings to generate returns from their savings. There are many kinds of investment opportunities are available at present like Bank Deposits, Stocks, Mutual Funds, Government Securities, etc.

Mutual Funds are there during the past few decades but these were not so popular investment mechanism till the end of last decade. During the last few years Mutual Funds gained popularity in between the small and medium investors as a very important investment tool. A Mutual Fund is a kind off investment mechanism which attracts money from numerous investors and invest the same in an optimum way to earn highest return. Where directly investing in Stocks through Stock Exchanges generates so many risk factors, on the other hand investing through mutual funds generates less risky returns to the investors. Investors can diversify the related risks through investing in mutual funds as these funds are invested in different companies' stocks at the same time so if one company fails to generate sufficient amount of returns, others can cover the same.

The first mutual fund was introduced by the Government of India in the year 1963 through establishment of the Unit Trust of India (UTI). Since then, many other Asset Management Companies are established in India. Now a days there are a total 44 Asset Management Companies are operating all over India and

mutual funds are became one most popular investment mechanism in India. In the beginning these Asset Management Companies were regulated by the Reserve Bank of India (RBI), but now these are regulated the Securities and Exchange Board of India (SEBI). These Asset Management Companies together offers more than 2500 mutual fund schemes. These mutual fund schemes can be diverged under three main categories namely Equity Mutual Fund, Debt Mutual Fund and Hybrid Mutual Fund. An Equity Mutual Fund mainly invests its resources in stocks of different companies. A Debt Mutual Funds primarily invests its resources in the fixed charge bearing securities of different companies like debentures, etc. A Hybrid Mutual Fund is simply a mixture of both Equity and Debt Mutual Funds.

Companies listed in the different stock exchanges can be segregated into different categories based on their market capitalisation namely large cap, mid cap and small cap. Equity Mutual Funds are of three types, namely large cap equity fund, mid cap equity fund and small cap equity fund. Large cap equity mutual funds primarily invest in the Equity Shares of the Companies having large market capitalisation. Mid cap equity mutual funds mostly invest in the Equity Shares of the companies with mid-range market capitalisation. Small cap equity mutual funds invest in the Equity Shares of the companies with small market capitalisation.

The present study is concerned to make an analysis of the performance of mid cap and small cap equity mutual funds based on returns generated and associated risks and compare the same. During the present era mutual funds have become one of most popular investment tools for all types of investors especially for the small and medium investors. But still the investors are not receiving suitable amount of return from their investments in mutual funds (Wachasunder, S. L. 2018). The present study will help these investors to decide the suitable mutual fund scheme to invest in.

## Literature Review:

**Sathya et. al. (2009)** has conducted a research work to analyse the performance of the Growth Oriented Mutual Funds available in India. The research work covered a period of 13 years' data of 23 Open-Ended Growth Mutual Funds offered by 6 private sector AMCs. In their study they used various statistical parameters like Sharpe Ratio, Treynor Ratio, and Jensen Alpha etc. to determine the performance of the selected growth oriented mutual funds. Finally, the study concluded that all the selected growth oriented mutual funds has shown consistent performance except Birla Sun Life and HDFC mutual funds. **Abhay et. al. (2011)** in their research article they analysed the performance of selected mutual funds available in USA and they also identified different criteria for selecting and investing in a mutual fund. They covered a period of 12 years data of 1374 actively managed mutual funds available in USA. They used different parameters like Annualised Return, Annual Excess Return and Expense Ratio etc. to analyse the performance of the selected mutual funds and to identify the winner and loser mutual funds. The study concluded that the performance of the winner and loser mutual funds are quite considerable and it also identified that the Small Cap mutual funds have more potential to produce additional return in comparison to market index. **Nandy, S. (2014)** in his study he compared the performance of the Index ETFs and Matched Index Mutual Funds. The research work covers a total of 13 years' data of Index ETFs and Index Mutual Funds of USA. He used statistical parameters like Sharpe Ratio, Buy and Hold Ratio etc. for the purpose of estimation the performance of the selected mutual fund schemes. The research concluded that the investors can earn the equal median values if they invest either in Index ETFs or in Matched Index Mutual Funds. **Prakash et. al. (2014)** in their study they made a quantitative analysis on the Indian Equity Mutual Funds. The research work covered a period of 5 years data of 3 Equity mutual fund schemes provided by 3 different Indian AMCs (Asset Management Company). In their study they used different statistical

parameters like Treynor Ratio, Jensen's Alpha, Beta, Sharpe Ratio etc. to analyse the performance of the selected mutual funds. The research work familiarised a new method which evaluates the relationship among fund's return and fund's asset size, cash holding, turnover and loads and expense ratio. **Gbenga et. al. (2017)** in their study they made a comparative analysis among the European Green Mutual Funds, Black (Fossil Energy and Natural Resource) Mutual Funds and Conventional Mutual Funds. Their research work covered a period of 23 years data of 175 Green fund schemes, 259 Black fund schemes and 976 Conventional fund schemes. They used unbalanced random panel data regression technique for the purpose of analysing the performance of the selected mutual fund schemes. Finally, the study concluded that both Black and Conventional Mutual Funds had shown a better performance than the Green Mutual Funds. **Wachasunder, S. L. (2018)** in his research work he studied the performance of small cap equity mutual funds available in India. The study covered a period of 5 years data of top rated 10 small cap mutual funds. He used different statistical parameters like Standard Deviation, Beta, Alpha, R-Squared, and Sharpe Ratio etc. to determine the performance of the selected mutual funds. Finally, the study concluded that all the selected small cap mutual funds did perform well during the study period. **Verma, J. H. (2019)** in his research paper he examined the performance of the Equity Mutual Funds available in India. His research paper covered a period of 6 and half years' daily data of total 15 Equity mutual fund schemes of various sizes. He uses various statistical parameters like Jensen's alpha, Beta, Standard Deviation, Sharpe Ratio etc. to estimate the performance of the selected mutual fund schemes. Finally, the study concludes that none of the selected mutual fund schemes had shown a steady performance over the study period except Birla Sun Life Equity Growth Scheme. **Thakur, S. S. (2019)** in his research work he made a comparative performance analysis on the selected mutual fund schemes which are dedicated to fulfil the post retirement needs of the investor. The study covered a period of 5 years data of 4 selected retirement mutual fund schemes. The study assessed the performance of the selected schemes by using

different tools, namely CAGR, Average Return, Sharpe Ratio, Treynor Ratio, Jensen's Alpha etc. Finally, the study concluded that the Franklin Indian Pension Fund had performed better in comparison to the other selected retirement mutual funds. **Sanjana et. al. (2020)** in their research they studied the performance of the LargeCap, MidCap and SmallCap mutual funds that are available in India. The research work consists of top 5 mutual fund schemes of each size of capitalisation. The study covers 5 years and 1 month's daily data of total 15 mutual fund schemes of different capitalisation sizes. They used different statistical tools like Sharpe Ratio, Treynor Ratio, Jensens Ratio etc. for the purpose of analysing the performance of the selected mutual funds. The study concluded that there were too much fluctuations in return and different economic and political factors did affect the returns of the selected mutual funds. It also concluded that neither of the selected mutual funds has outperformed the market over the period of study as per the Sharpe Ratio. **Mathur, P. (2021)** in her research paper titled "Comparative Analysis of Performance of Mutual Funds: A Study of Prominent Multi Cap and Large Cap Funds" tried to investigate the performance of multi and large cap equity funds for a period of 5 years (2014 to 2019). Here, the study analysed the performance of 10 different mutual funds of each category (Multi-Cap and Large-Cap). Here the researcher used Kruskal Wallis test to compare the returns and associated risk of the selected mutual fund schemes. The results shows that all the selected mutual funds have generated a suitable amount of return at a moderate level risk. Finally, the study concludes that multi cap and large cap mutual funds are decent investment option for investors.

**Statement of Problem:** During the present era small investors are not getting satisfying amount of returns from the direct investment in Indian stock market that's why they are getting attracted by different Mutual Fund Schemes from different AMCs. But for these small investors it is a very difficult to choose the suitable mutual fund to invest in.

The study investigates the performance of selected MidCap and SmallCap mutual fund schemes and compares their performances in terms of Returns, Risks, Market Volatility, Risk adjusted Returns etc. to guide the small investors to make suitable decisions while choosing the appropriate mutual fund scheme to invest in.

### **Objectives of the Study:**

- To calculate the returns earned by the selected mid and small cap equity mutual fund schemes over the study period and compare the returns there after.
- To analyse the associated risk and market volatility of the selected mid and small cap equity funds and compare them.
- To appraise performance of the selected mid and small cap equity funds using different risk adjusted measures.

### **Research Methodology:**

The research work is constructed by using secondary data and it is empirical in nature. The study evaluates the performance of SmallCap and MidCap Equity funds of arbitrarily selected 8 Asset Management Companies and compares the result there off for a period of 4 years i.e 1<sup>st</sup> January 2018 to 31<sup>st</sup> December 2021.

- **Selected SmallCap and MidCap Equity Funds:**

<b>SmalCap Equity Funds</b>	<b>MidCap Equity Funds</b>
Aditya Birla Sun Life Small Cap Fund	Aditya Birla SunLife MidCap Fund
Axis Small Cap Fund	Axis MidCap
DSP Small Cap Fund	DSP MidCap Fund
IDBI Small Cap Fund	IDBI MidCap Fund
Franklin India Smaller Companies Fund	Franklin India Prima Fund
HDFC Small Cap Fund	HDFC MidCap Opportunities Fund
ICICI Prudential Smallcap Fund	ICICI Prudential MidCap Fund
Nippon India Small Cap Fund	Nippon India Growth Fund

Table: Selected SmallCap and MidCap Equity Funds

- **Source of Data:** The empirical study is constructed by using secondary data which were gathered from the official website of the Association of Mutual Funds in India (AMFI).
- **Scope of the Study:** The current research work is conducted on SmallCap and MidCap equity funds provided by randomly selected 8 Asset Management Companies in India from the top AMCs available in India. The study covers a period of 4 years' data (i.e., from 1<sup>st</sup> January 2018 to 31<sup>st</sup> December 2021). The previous NAVs of the selected Equity Mutual Funds were used for evaluation of returns and performance of the respective mutual funds.
- **Tools used for Analysis:**
  - Alpha:** In finance, it is popularly known as the Jensen's Alpha or Jensen's Performance Index. It aims to determine the return of an investment using CAPM (Capital Asset Pricing Model) formula. It is used to measure the performance of an investment after adjusting the associated risks.
  - Beta:** Beta signifies the sensitivity of a mutual fund towards the movement of the market. It trials the Volatility of a mutual fund towards



the market forces. In case of mutual fund schemes the lower the Beta value the lower is the Volatility and vice-versa.

- iii. **Standard Deviation:** Standard Deviation trails the Deviation or Dispersion of the Data from their respective mean. In case of mutual funds Standard Deviation denotes variation from the actual return of a particular mutual fund to the expected return of that mutual fund.
- iv. **Sharpe Ratio:** The Sharpe Ratio represents the performance of a mutual fund scheme after adjusting the associated risks. The Sharpe Ratio is computed by dividing the surplus return of the mutual fund scheme by the Standard Deviation of the mutual fund scheme. The surplus return is calculated by subtracting the risk-free rate of return from the annualised return of the mutual fund. The higher the Sharpe Ratio the better is the performance of the mutual fund.
- v. **Treynor Ratio:** The Treynor Ratio denotes the return that are generated after considering an amount of risk which cannot diversified by the investor. It is also used as a performance measure for mutual fund portfolios. The Treynor Ratio is computed by dividing the surplus return of the mutual fund by the Beta value of the mutual fund. The surplus return can be calculated by subtracting the risk-free rate of return from the annualised return of the mutual fund. The higher the Treynor Ratio the better is the performance of the mutual fund.
- vi. **Information Ratio:** The Information Ratio is the estimation of the skill and performance of a mutual fund portfolio manager at generating returns over the market benchmark returns. It is calculated by dividing the surplus return of the mutual fund by the tracking error of the mutual fund. The surplus return is assessed by subtracting the market benchmark return from the actual return of the mutual fund. The tracking error denotes the consistency level of a mutual fund portfolio in which it tracks the performance of the market index. A higher information ratio implies that the portfolio manager is skilled enough to generate excess return over the

market benchmark return or, in simple words a better performance of the mutual fund scheme.

## Data Analysis and Findings:

### • Annualised Returns:

MidCap Equity Funds	2018 (₹)		2019 (₹)		2020 (₹)		2021 (₹)	
	Opening NAV	Closing NAV	Opening NAV	Closing NAV	Opening NAV	Closing NAV	Opening NAV	Closing NAV
Aditya Birla SunLife MidCap Fund	336.04	285.24	285.11	274.56	275.29	317.01	320.2	471.64
Axis MidCap	34.09	35.67	35.60	39.71	39.69	49.91	50.34	69.11
DSP MidCap Fund	57.86	52.51	52.44	57.34	57.38	70.72	71.43	90.02
IDBI MidCap Fund	12.63	11.16	11.15	11.02	11.05	13.76	13.89	18.82
Franklin India Prima Fund	1066.39	986.76	988.17	1031.28	1033.57	1224.38	1235.44	1617.16
HDFC MidCap Opportunities Fund	59.74	53.49	53.54	53.60	53.64	65.08	114.48	161.42
ICICI Prudential MidCap Fund	106.29	95.24	95.14	94.66	94.83	112.79	67.207	90.246
Nippon India Growth Fund	1206.00	1070.56	1072.27	1143.18	1145.46	1391.63	1410.48	2021.50

Table 1: Opening and Closing NAVs of MidCap Equity Funds

SmallCap Equity Funds	2018 (₹)		2019 (₹)		2020 (₹)		2021 (₹)	
	Opening NAV	Closing NAV	Opening NAV	Closing NAV	Opening NAV	Closing NAV	Opening NAV	Closing NAV
Aditya Birla SunLife SmallCap Fund	46.46	36.66	36.76	32.83	33.03	39.75	40.3	60.21
Axis Small Cap Fund	30.62	28.45	28.51	34.38	34.30	42.83	43.11	68.44
DSP Small Cap Fund	72.95	54.96	55.05	55.85	56.34	74.96	75.48	119.03
IDBI Small Cap Fund	11.27	9.89	9.89	9.59	9.62	11.51	11.59	19.00
Franklin India Smaller Companies Fund	66.59	56.11	56.27	53.85	54.14	64.07	65.08	100.73
HDFC Small Cap Fund	48.61	45.37	45.50	41.53	41.86	50.44	50.64	83.13
ICICI Prudential Smallcap Fund	31.05	24.31	24.38	27.07	27.21	33.78	34.08	54.67
Nippon India Small Cap Fund	49.64	42.10	42.19	41.43	41.70	53.76	54.54	94.17

Table 2: Opening and Closing NAVs of SmallCap Equity Funds

Returns of MidCap Funds					Returns of SmallCap Funds				
MidCap Equity Funds	2018 (%)	2019 (%)	2020 (%)	2021 (%)	SmallCap Equity Funds	2018 (%)	2019 (%)	2020 (%)	2021 (%)
Aditya Birla SunLife MidCap Fund	-15.1172	-3.7003	15.1549	47.2954	Aditya Birla Sun Life Small Cap Fund	-21.0934	-10.6910	20.3451	49.4045
Axis MidCap	4.6348	11.5449	25.7496	37.2865	Axis Small Cap Fund	-7.0869	20.5893	24.8688	58.7567
DSP MidCap Fund	-9.2465	9.3430	23.2485	26.0255	DSP Small Cap Fund	-24.6607	1.4352	33.0493	57.6974
IDBI MidCap Fund	-11.6390	-1.1659	24.5249	35.4932	IDBI Small Cap Fund	-12.2449	-3.0334	19.6466	63.9344
Franklin India Prima Fund	-7.4672	4.3626	18.4613	30.8975	Franklin India Smaller Companies Fund	-15.7381	-4.3007	18.3413	54.7787
HDFC MidCap Opportunities Fund	-10.4620	0.1121	21.3274	41.0028	HDFC Small Cap Fund	-6.6653	-8.7253	20.4969	64.1588
ICICI Prudential MidCap Fund	-10.3961	-0.5045	18.9392	34.2807	ICICI Prudential Smallcap Fund	-21.7069	11.0336	24.1455	60.4167
Nippon India Growth Fund	-11.2305	6.6131	21.4909	43.3200	Nippon India Small Cap Fund	-15.1894	-1.8014	28.9209	72.6623

Table 3: Annualised Returns

Table-1 shows the opening and closing NAVs of the Midcap Equity Funds, Table-2 shows the opening and closing NAVs of the Smallcap Equity Funds and Table-3 shows the Annualised Returns earned by the selected mutual funds over the study period. During the end of 2018 there was a fall in the Indian stock market which had made a great impact on the closing NAVs of the selected mutual funds and the Annualised Returns became Negative for the year 2018. Then during 2019 the situation was better in comparison to 2018. All the selected mutual fund schemes have earned a good return on investor deposits during 2020 and 2021 despite the Covid-19 virus breakout.

• **Out Performance:**

S&P BSE Sensex Return of 2018: 6.6723% S&P BSE Sensex Return of 2019: 14.9401% S&P BSE Sensex Return of 2020: 14.7011% S&P BSE Sensex Return of 2021: 29.1322%									
MidCap Equity Funds					SmallCap Equity Funds				
	2018 (%)	2019 (%)	2020 (%)	2021 (%)		2018 (%)	2019 (%)	2020 (%)	2021 (%)
Aditya Birla SunLife MidCap Fund	-21.7896	-18.6404	0.4538	18.1663	Aditya Birla Sun Life Small Cap Fund	-27.7642	-25.6310	5.6440	20.2723
Axis MidCap	-2.0376	-3.3951	11.0484	8.1543	Axis Small Cap Fund	-13.7577	5.6492	10.1677	29.6245
DSP MidCap Fund	-15.9188	-5.5961	8.5474	-3.1067	DSP Small Cap Fund	-31.3315	-13.4869	18.3482	28.5652
IDBI MidCap Fund	-18.3113	-16.1060	9.8238	6.3610	IDBI Small Cap Fund	-18.9157	-17.9734	4.9455	34.8022
Franklin India Prima Fund	-141396	-10.5775	3.7601	1.7653	Franklin India Smaller Companies Fund	-22.4089	-19.2408	3.6402	25.6466
HDFC MidCap Opportunities Fund	-17.1343	-14.8280	6.6263	11.8706	HDFC Small Cap Fund	-13.3361	-23.6653	5.7958	35.0266
ICICI Prudential MidCap Fund	-17.1396	-15.4446	4.2380	5.1485	ICICI Prudential Smallcap Fund	-28.3777	-3.9064	9.4444	31.2845
Nippon India Growth Fund	-17.9029	-8.3270	6.7898	14.1878	Nippon India Small Cap Fund	-21.8602	-16.7414	14.2197	43.5301

Table 4: Out Performance

Table-4 represents comparison between performance of the selected Midcap and Smallcap mutual funds and the performance of the whole market (S&P BSE Sensex Return) during the study period. The above table reveals that during 2018 and 2019 the market performance is better than the selected mutual funds except Axis Small Cap Fund in 2019. During 2020 all the selected mutual funds outperformed the market and earned a handsome return. In 2021 DSP MidCap Fund failed to outperform the market. The selected SmallCap Funds did showed a

better performance than the MidCap Funds during the study period. A high frequency of fluctuation is observed during the study period.

- **Alpha:**

MidCap Equity Funds					SmallCap Equity Funds				
	2018	2019	2020	2021		2018	2019	2020	2021
Aditya Birla SunLife MidCap Fund	- 0.2189	- 0.1792	0.0276	0.3906	Aditya Birla Sun Life Small Cap Fund	- 0.2788	- 0.2478	0.0772	0.4188
Axis MidCap	- 0.0225	- 0.0097	0.1339	0.2943	Axis Small Cap Fund	- 0.1412	0.0924	0.1300	0.5019
DSP MidCap Fund	- 0.1067	- 0.0332	0.1080	0.1854	DSP Small Cap Fund	- 0.3153	- 0.1121	0.2107	0.5091
IDBI MidCap Fund	- 0.1851	- 0.1452	0.1141	0.2754	IDBI Small Cap Fund	- 0.1913	- 0.1576	0.0750	0.5579
Franklin India Prima Fund	- 0.1436	- 0.0918	0.0589	0.2351	Franklin India Smaller Companies Fund	- 0.2266	- 0.1745	0.0578	0.4652
HDFC MidCap Opportunities Fund	- 0.1728	- 0.1303	0.0883	0.3314	HDFC Small Cap Fund	- 0.1360	- 0.2165	0.0832	0.5584
ICICI Prudential MidCap Fund	- 0.1725	- 0.1410	0.0595	0.2669	ICICI Prudential Smallcap Fund	- 0.2861	- 0.0195	0.1185	0.5205
Nippon India Growth Fund	- 0.1799	- 0.0727	0.0895	0.3611	Nippon India Small Cap Fund	- 0.2196	- 0.1524	0.1626	0.6486

Table 5: Alpha

Table-5 measures the Alpha values of the selected MidCap and SmallCap Equity Funds. Alpha represents the risk associated performance in terms of returns of the selected Midcap and Smallcap Equity Funds. The above table reveals that the risk adjusted returns of the selected mutual funds did enhanced over the study period. During 2018 and 2019 the Alpha value of all the selected Midcap

and Smallcap funds are negative except Axis Small Cap Fund then during 2020 and 2021 it improved and became positive but the fluctuations are high.

- **Beta:**

MidCap Equity Funds					SmallCap Equity Funds				
	2018	2019	2020	2021		2018	2019	2020	2021
Aditya Birla SunLife MidCap Fund	0.8958	0.8984	0.6968	0.0269	Aditya Birla Sun Life Small Cap Fund	0.8782	0.8793	0.7273	0.0194
Axis MidCap	0.7671	0.6550	0.6126	0.0342	Axis Small Cap Fund	0.6053	0.4897	0.6274	0.0668
DSP MidCap Fund	0.8416	0.6773	0.7032	0.0175	DSP Small Cap Fund	0.7892	0.6763	0.6417	-0.0142
IDBI MidCap Fund	0.7821	0.7753	0.7919	0.0386	IDBI Small Cap Fund	0.7709	0.6860	0.6636	0.0476
Franklin India Prima Fund	0.7639	0.8017	0.7198	0.0130	Franklin India Smaller Companies Fund	0.7333	0.7452	0.7179	0.0528
HDFC MidCap Opportunities Fund	0.8458	0.7452	0.7104	0.0346	HDFC Small Cap Fund	0.7153	0.7143	0.6686	0.0552
ICICI Prudential MidCap Fund	0.8020	0.8088	0.7748	0.0224	ICICI Prudential Smallcap Fund	0.7467	0.7227	0.6832	0.0575
Nippon India Growth Fund	0.9049	0.8498	0.7153	0.0049	Nippon India Small Cap Fund	0.8911	0.7866	0.7319	0.0317

Table 6: Beta

Table-6 measures the Beta values of the selected mutual funds which denotes the Volatility of mutual fund in comparison to its market benchmark. It is clear from the above-mentioned table that the selected mutual funds are not as much volatile than the market benchmark as the Beta values are less than 1 during the study period. The Volatility of the selected mutual funds deteriorated over the study period. During 2021 DSP SmallCap Fund had a negative Beta. A

Negative Beta indicates that a mutual fund will have abnormal behaviour where its response will be in the opposite direction of the market benchmark.

• **Annualised Standard Deviation:**

MidCap Equity Funds					SmallCap Equity Funds				
	2018	2019	2020	2021		2018	2019	2020	2021
Aditya Birla SunLife MidCap Fund	0.1478	0.1453	0.2586	0.1584	Aditya Birla Sun Life Small Cap Fund	0.1613	0.1524	0.2824	0.1711
Axis MidCap	0.1313	0.1129	0.2232	0.1444	Axis Small Cap Fund	0.1110	0.1024	0.2487	0.1435
DSP MidCap Fund	0.1420	0.1135	0.2518	0.1424	DSP Small Cap Fund	0.1518	0.1264	0.2527	0.1539
IDBI MidCap Fund	0.1429	0.1239	0.2787	0.1660	IDBI Small Cap Fund	0.1462	0.1272	0.2560	0.1502
Franklin India Prima Fund	0.1217	0.1268	0.2565	0.1568	Franklin India Smaller Companies Fund	0.1239	0.1241	0.2693	0.1605
HDFC MidCap Opportunities Fund	0.1435	0.1248	0.2615	0.1598	HDFC Small Cap Fund	0.1360	0.1261	0.2606	0.1647
ICICI Prudential MidCap Fund	0.1379	0.1344	0.2802	0.1582	ICICI Prudential Smallcap Fund	0.1359	0.1331	0.2659	0.1588
Nippon India Growth Fund	0.1484	0.1364	0.2572	0.1648	Nippon India Small Cap Fund	0.1651	0.1372	0.2757	0.1651

Table 7: Annualised Standard Deviation (SD)

Table-7 measures the Annualised Standard Deviation of the selected mutual funds. Standard Deviation indicates the deviation between the returns of the selected mutual funds from the arithmetic mean of returns. Investors define the Standard Deviation as the volatility of past returns of the mutual funds. Higher standard deviation indicates greater volatility and vice-versa. During the study period the standard deviation of the selected mutual funds increased significantly which indicates that the returns of the related mutual funds have

significant functions. During 2020 the performance of the associated mutual funds have highest volatility.

• **Sharpe Ratio:**

MidCap Equity Funds					SmallCap Equity Funds				
	2018	2019	2020	2021		2018	2019	2020	2021
Aditya Birla SunLife MidCap Fund	- 1.5371	- 0.7982	0.3115	2.5964	Aditya Birla Sun Life Small Cap Fund	- 1.7787	- 1.2200	0.4690	2.4725
Axis MidCap	- 0.2253	0.3229	0.8356	2.0907	Axis Small Cap Fund	- 1.3230	1.2392	0.7145	3.5990
DSP MidCap Fund	- 1.1862	0.1273	0.6412	1.3290	DSP Small Cap Fund	- 2.1255	- 0.5099	1.0267	3.2869
IDBI MidCap Fund	- 1.3464	- 0.7014	0.6252	1.7102	IDBI Small Cap Fund	- 1.3573	- 0.8596	0.4901	3.7831
Franklin India Prima Fund	- 1.2379	- 0.2789	0.4429	1.5181	Franklin India Smaller Companies Fund	- 1.8835	- 0.9831	0.4175	2.9701
HDFC MidCap Opportunities Fund	- 1.2583	- 0.6240	0.5441	2.1219	HDFC Small Cap Fund	- 1.0491	- 1.3185	0.5141	3.4651
ICICI Prudential MidCap Fund	- 1.3046	- 0.6256	0.4226	1.7186	ICICI Prudential Smallcap Fund	- 2.1564	0.2355	0.6411	3.3581
Nippon India Growth Fund	- 1.2688	- 0.0944	0.5596	2.1972	Nippon India Small Cap Fund	- 1.3806	- 0.7071	0.7961	3.9714

Table 8: Sharpe Ratio

Table-8 measures the Sharpe Ratio of the selected mutual funds which denotes the performance of the mutual funds in terms of risk adjusted returns. It is clear from the above table that the Sharpe Ratio of the selected Midcap and Smallcap mutual funds improved over the study period. During 2018 the Sharpe Ratio of the all the selected mutual funds are negative then in 2019 there was an improvement in the performance of the mutual and during 2020 and 2021 it improved further. Smallcap Equity funds shows better improvement in the performance in terms of risk adjusted returns than Midcap Equity Funds during the study period.



• **Treynor Ratio:**

MidCap Equity Funds					SmallCap Equity Funds				
	2018	2019	2020	2021		2018	2019	2020	2021
Aditya Birla SunLife MidCap Fund	- 0.2536	- 0.1291	0.1156	14.9695	Aditya Birla Sun Life Small Cap Fund	- 0.3267	- 0.2114	0.1821	21.7986
Axis MidCap	- 0.0387	0.0556	0.3045	8.8169	Axis Small Cap Fund	- 0.2427	0.2591	0.2832	7.7356
DSP MidCap Fund	- 0.2002	0.0213	0.2296	10.8119	DSP Small Cap Fund	- 0.4088	- 0.0953	1.0267	- 35.7191
IDBI MidCap Fund	- 0.2460	- 0.1169	0.2200	7.3491	IDBI Small Cap Fund	- 0.2574	- 0.1594	0.1891	11.9391
Franklin India Prima Fund	- 0.1972	- 0.0441	0.1578	18.3233	Franklin India Smaller Companies Fund	- 0.3183	- 0.1637	3.5985	9.0347
HDFC MidCap Opportunities Fund	- 0.2135	- 0.1045	0.2003	9.7898	HDFC Small Cap Fund	- 0.1994	- 1.3185	0.2004	10.3454
ICICI Prudential MidCap Fund	- 0.2244	- 0.1039	0.1528	12.1557	ICICI Prudential Smallcap Fund	- 0.3925	0.2355	0.6411	9.2736
Nippon India Growth Fund	- 0.2081	- 0.0151	0.2012	74.1214	Nippon India Small Cap Fund	- 0.2557	- 0.7071	0.7916	20.6797

Table 9: Treynor Ratio

Table-9 measures the Treynor Ratio of the selected Mutual Funds which denotes the performance of the mutual funds in terms of returns after adjusting the risks which cannot be diversified. The above table demonstrates that the Sharpe Ratio of all the Midcap and Smallcap Equity Funds improved throughout the study period. During 2018 the Treynor Ratio of all the mutual funds are negative then throughout 2019 it improved significantly and again in 2020 and 2021 it improved further. DSP SmallCap Fund have a negative Treynor Ratio in 2021 as it has a negative Beta during 2021. Smallcap Equity funds shows better improvement in the performance in terms of returns after adjusting the unavoidable risks than Midcap Equity Funds during the study period.

• **Information Ratio:**

	MidCap Equity Funds				SmallCap Equity Funds				
	2018	2019	2020	2021		2018	2019	2020	2021
Aditya Birla SunLife MidCap Fund	- 2.2342	- 2.3116	0.0280	0.9146	Aditya Birla Sun Life Small Cap Fund	- 2.3361	- 2.6624	0.3112	0.9529
Axis MidCap	- 0.2160	- 0.4060	0.6789	0.4291	Axis Small Cap Fund	- 1.4529	0.5456	0.5406	1.5833
DSP MidCap Fund	- 1.6313	- 0.7039	0.1546	- 0.1636	DSP Small Cap Fund	- 2.6576	- 1.3882	0.9877	1.4143
IDBI MidCap Fund	- 1.7013	- 1.9854	0.7363	0.3083	IDBI Small Cap Fund	- 1.6705	- 1.8664	0.2777	1.7945
Franklin India Prima Fund	- 1.7393	- 1.4939	0.2618	0.0878	Franklin India Smaller Companies Fund	- 2.4988	- 2.4096	0.2189	1.2722
HDFC MidCap Opportunities Fund	- 1.7292	- 1.8334	0.4186	0.5884	HDFC Small Cap Fund	- 1.2340	- 2.6486	0.3187	1.7110
ICICI Prudential MidCap Fund	- 1.7415	- 1.8872	0.2854	0.2556	ICICI Prudential Smallcap Fund	- 2.7674	- 0.4017	0.5211	1.5657
Nippon India Growth Fund	- 1.8450	- 1.0970	0.4592	0.6818	Nippon India Small Cap Fund	- 1.7888	- 1.8415	0.8460	2.1035

Table 10: Information Ratio

Table-10 measures the Information Ratio of the selected mutual funds which denotes the performance of the mutual funds in terms of returns beyond the market benchmark returns. The above mentioned table reveals that the almost all the selected Midcap and Smallcap Equity funds fails to earn a return beyond market benchmark returns during 2018 and 2019 except Axis Small Cap Fund during 2019, but during 2020 and 2021 all the selected funds earned significantly higher returns than the market benchmark returns except DSP MidCap Fund. Smallcap Equity funds shows better improvement in the performance in terms of returns beyond the market benchmark returns than Midcap Equity Funds during the study period.

## **Conclusion:**

As per the aforementioned performance analysis of the selected Midcap and Smallcap equity mutual funds it is evident that almost all of the selected mutual funds did perform well over the study period (i.e., from 1<sup>st</sup> January 2018 to 31<sup>st</sup> December 2021). But due to the fall in NIFTY Sensex during 2019 and lockdown in 2020 because of Covid breakout hampered the performances of the selected mutual funds. The overall analysis shows that the Smallcap Equity mutual funds did perform better than the Midcap Equity mutual funds. During 2021 DSP Small Cap Fund had negative Beta Value. A negative Beta Value implies that any change in the market benchmark will affect inversely on the particular mutual fund. Due to the negative Beta Value DSP Small Cap fund had a negative Treynor Ratio during 2021 though it had earned far greater return than the risk-free rate of return. Finally, it can be said that the investors should consider different statistical parameters namely Alpha, Beta, Standard Deviation, Sharpe Ratio, Treynor Ratio, Information Ratio etc. before investing in any mutual fund scheme apart from considering Net Asset Values (NAVs) and Total Returns earned by the mutual fund schemes to ensure reliable performance of the mutual fund schemes.

## **Limitations of the Study:**

- The research work analysed the performance of only MidCap and SmallCap Equity Funds while there are numerous types of mutual fund schemes exists in India.
- The research work analysed the performance of only 8 AMC's MidCap and SmallCap Equity Funds while there is many other AMCs operating in India.
- The study period is only 4 years i.e., from 1<sup>st</sup> January 2018 to 31<sup>st</sup> December 2021.

**References:**

1. Halarnkar, S., & Usapkar, R. AN EMPIRICAL ANALYSIS ON PERFORMANCE OF MUTUAL FUND IN INDIA: A STUDY ON LARGE CAP, MID CAP, AND SMALL CAP MUTUAL FUNDS.
2. Kumar, V. (2019). Performance Analysis of Select Equity Mutual Funds in India. *Research Review International Journal of Multidisciplinary*, 4(05), 1476-1479.
3. Nandy, S. (2014). A quantitative comparison of the financial returns of index ETFs and matched index mutual funds. *International Journal of Business and Management*, 9(7), 10.
4. Gadhavi, M.Y. (2018) Comparative Analysis of Mid & Small-cap Funds Vs Large Cap Funds – A study of top rated fund of India.
5. Verma, J.H. (2019) Performance Analysis of Select Equity Mutual Funds in India.
6. Thakur, S. S. (2019). A comparative analysis of financial performance of selected mutual funds schemes dedicated to post retirement needs. *UNNAYAN: International Bulletin of Management and Economics*, 10, 253-263.
7. Ibikunle, G., & Steffen, T. (2017). European green mutual fund performance: A comparative analysis with their conventional and black peers. *Journal of Business Ethics*, 145(2), 337-355.
8. Prakash, S., & Sundar, C. (2014). Quantitative analysis of Indian mutual funds: Equity schemes. *Indian Journal of Finance*, 8(10), 20-32.
9. Wachasunder, S. L. (2018). A Study on the Performance of Equity Mutual Funds With special reference to small cap mutual funds.
10. Kaushik, A., Brinckman, D. E., & Rose, C. C. (2013). Performance evaluation and fund selection criteria for mutual funds over the period 2000-2011. *Accounting and Finance Research*, 2 (3), 111-118.
11. Debasish, S. S., & Shil, N. C. (2009). Performance Evaluation of Selected Growth Oriented Mutual Funds. *Adarsh Journal of Management Research*, 2(2), 1.

12. Singh, I. (2014). Performance evaluation of selected growth oriented mutual funds schemes in India. *International Journal of Education and Management Studies*, 4(2), 178.
13. Mathur, P. (2021). COMPARATIVE ANALYSIS OF PERFORMANCE OF MUTUAL FUNDS: A STUDY OF PROMINENT MULTI CAP AND LARGE CAP FUNDS. *Contemporary Issues And Recent Advances In Management, Commerce, Economics*, 23.
14. URL:<https://in.finance.yahoo.com/>
  - <https://www.amfiindia.com/>