

Performance of Mutual Funds in India: A Study with Reference to Select Equity Multi-Cap Funds

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ABSTRACT

Indian Mutual Fund Industry has witnessed enormous expansion in terms of growth of Assets under Management (AUM), from a meagre Rs. 25 crores in 1964 to Rs. 36.59 lakh crores in August 2021. Equity Multi-cap mutual funds tend to invest in stocks of companies across the stock market irrespective of sector and size. As a result, these funds provide much-needed diversification. In a direct plan, the investor decides to invest directly in mutual funds without routing the investment through any distributor or agent. Due to the absence of an intermediary commission, the direct plan has a lower expense ratio than a regular plan which leads to higher returns.

Since the outbreak of COVID-19, the stock markets have experienced an extensive crisis with severe dampening effects in the entire global scenario. It has affected the Indian Mutual Fund Industry as well. However, irrespective of all negative signs, the impact of COVID-19 has created a ray of hope towards rebuilding self-confidence for Indian investors during the last year in this new normal landscape.

In this backdrop, the present research paper focuses on examining the performance of direct plans of four open-ended Equity Multi-cap Mutual Funds [Baroda Multi-Cap Fund (BMF), ICICI Prudential Multi-Cap Fund (IPMF), Invesco India Multi-Cap Fund (IIMF) and Nippon India Multi-Cap Fund (NIMF)] based on certain parameters. This secondary data-based study covers 8 years (2013-2021). The criterion for selecting the funds was net assets above Rs.1,000 crores as of 31.08.2021. Results reveal that the funds provided double-digit returns during the entire study period. IPMF and NIMF performed poorly and remained riskier than the benchmark during the entire study period. Further, NIMF remained the riskiest fund throughout the study period. IIMF remained the best performer in the 1-year, 5-year and 8-year periods in terms of risk-adjusted return. NIMF remained the most aggressive fund and BMF remained the most defensive fund during the entire study period. The fund managers of IIMF succeeded in quality stock-picking in 1-year, 5-year and 8-year. The fund managers of NIMF performed miserably throughout the study period and failed in quality stock picking. RSQ values portray that BMF was the most successful fund in terms of diversification during the entire study period.

Keywords: aum, covid-19, equity multi-cap fund, mutual fund

I. INTRODUCTION

Indian Mutual Fund industry has been witnessing remarkable growth in terms of the mobilization of domestic savings. The mutual fund acts as a financial intermediary by pooling up the savings of different investors and helps these investors in deriving the benefits of capital market advancement. This intermediation between the suppliers and customers of financial resources has gained importance globally because of attractive returns with reduced risks. Thus, in the era of globalization, the involvement of mutual funds has become crucial in the mobilization of investible funds.

The Assets under Management (AUM) of the Indian Mutual Fund industry have been experiencing a radical increase from only Rs.25 crores in 1964 to Rs. 36.59 lakh crores till August 2021. But this growth has been dampened since January 2020 by the sudden outbreak of COVID-19. The stock markets across the globe have been experiencing a severe dampening effect. BSE SENSEX and NIFTY50 (the two key benchmark indices of the Indian Stock market) slumped down by around 16000 points and 4500 base points respectively between February–March 2020. It also affected the Indian Mutual Fund industry.

The number of New Fund Offers (NFOs) filed by Mutual Fund companies with the Securities and Exchange Board of India (SEBI) decreased drastically from 11 NFOs in January 2020 to just Nil in April 2020. Moreover, among the Debt funds, Franklin Templeton had suddenly shut down its six (6) schemes leading to an unknown dark fortune to its investors.

Among all these unforeseen circumstances, this COVID-19 has also created a horizon of a new normal landscape. It is evident from the market boom since the last year. The proportionate share of equity-oriented schemes has witnessed gigantic growth from 40.1% of industry assets in August 2020 to 46% in August 2021; AUM increased from Rs.27.5 lakh crores to Rs.36.59 lakh crores during August 2020- August 2021¹.

Multi-Cap funds create a portfolio with a combination of large-cap, mid-cap and small-cap stocks. Alike other mutual fund schemes, the Multi-Cap funds also faced such terrible trash due to this pandemic outbreak of coronavirus at the initial stage.

II. REVIEW OF SELECT RECENT LITERATURE

Following is the summary of select recent studies.

Bondyopadhyay (2008) found that ELSS generated much higher returns than any of the assured income schemes. **Badrinath (2008)** carried out a study on 'contra' funds. The researcher found that the performance of 'SBI Contra Fund' was superior to that of an equity diversified market. **Roy & Ghosh (2010)** observed that the average diversification performance of income and growth schemes was miserable. **Shin and Soydemir (2010)** noted that passive investment strategy did not outperform market returns. **Loomba (2011)** observed that Nifty returns outperformed the returns of large-cap equity funds of Franklin Templeton Fund House. **Chandrakumarmangalam & Govindasamy (2011)** reported that the chosen five ELSS performed better than the market. **Shitole and Thyagarajan (2012)** observed that most funds delivered market-related returns and many schemes outperformed their respective benchmark indices. **Srivastava (2014)** concluded that the chosen ELSS Funds generated better returns than risk-free securities. However, these funds failed to deliver better returns than the benchmark portfolio.

Goyal (2015) analyzed the performance of the top ten equity-diversified mutual funds in India against S&P CNX Nifty. The researcher observed that Franklin India mutual fund outperformed the market in terms of return with a high Sharpe ratio, Treynor ratio and Jensen alpha. **Kamboj and Jagotra (2018)** reported that four multi-cap equity funds generated higher risk-adjusted returns than the benchmark index and Birla Sun Life Equity fund remained the best performer. But HDFC Premier Multicap fund underperformed the benchmark. **Kaushik (2019)** observed that midcap funds could not outperform the market. Further, their poor performance persisted over time.

III. RESEARCH GAP

It is evident from the review of recent literature that no in-depth study has yet been conducted on the performance of the "Direct Plan" of multi-cap equity mutual fund schemes in the Indian context. Previous research papers on performance analysis or evaluation of mutual funds in India were based on a 'Regular Plan' within a specific time frame. Here also, the time frame is specified. But it is broken down into various components (1-year, 3-year, 5-year, and 8-year etc.) for measuring the consistency in the performance of the chosen schemes during different time intervals. Moreover, the study covers the pandemic period also.

IV. RESEARCH QUESTIONS

The research questions to be addressed in the study include the following:

- (1) How are the returns of the chosen multi-cap equity mutual fund schemes in India in comparison to the benchmark index?
- (2) Whether the chosen multi-cap equity mutual fund schemes perform better than the benchmark index in terms of total risk?
- (3) Whether the chosen multi-cap equity mutual fund schemes outperform the benchmark index from the viewpoint of risk-adjusted return?
- (4) Are the chosen multi-cap equity mutual fund schemes aggressive or conservative?
- (5) Whether the fund managers of the chosen multi-cap equity mutual fund schemes have exhibited skill in quality stock picking?
- (6) Are the chosen multi-cap equity mutual fund schemes adequately diversified?
- (7) How is the overall performance of the funds during the pandemic (1-year)?

V. RESEARCH METHODOLOGY

The present study has been conducted based on secondary sources of information using several journals, articles, books, etc. The study uses the official websites of the Securities and Exchange Board of India (SEBI), the Association of Mutual Funds in India (AMFI) and the Bombay Stock Exchange. The study period is eight years (from 31.08.2013 to

¹<https://www.amfiindia.com/indian-mutual>

31.08.2021). It consists of 97 NAV and 96 return observations for the funds. Similarly, the study considers 97 values and 96 return observations for the benchmark index BSE S&P 500. The study has considered those open-ended multi-cap funds which have net assets above Rs.1,000 crores as of 31.08.2021. Only four funds have met the criterion. These funds are Baroda Multi-Cap Fund (BMF), ICICI Prudential Multi-Cap Fund (IPMF), Invesco India Multi-Cap Fund (IIMF) and Nippon India Multi-Cap Fund (NIMF). The study has taken into consideration the 'Direct Plan' under 'Growth Option' for the analysis. S&P BSE 500 has been taken as the benchmark index. The risk-free return of 7.10% has been taken for computing the risk-adjusted return. It is the rate offered by the Public Provident Fund (PPF) scheme of the Government of India since April 2020. The Compound Annual Growth Rate (CAGR) has been computed to examine the return of the chosen funds and the benchmark. Standard Deviation has been used to measure the total risk associated with the funds and the benchmark index. Beta values have also been computed to explore the aggressiveness of the funds. Further, the study has considered Alpha values to judge the stock-selection skill of the fund managers. Moreover, R-Squared values have been computed to reveal the extent of diversification of the funds. The chosen periods (1-year, 3-year, 5-year and 8-year) cover the pandemic. However, the entire 1-year (August 2020-August 2021) period falls under the pandemic. On the other hand, the other periods partially fall under the pandemic. As such, 1-year results can completely depict the impact of a pandemic on different parameters.

VI. RESULTS AND DISCUSSION

Due to the Covid-19 outbreak, the assets managed by the Indian mutual fund industry have decreased from Rs. 28.29 trillion in February 2020 to Rs. 23.53 trillion in April 2020. The proportionate share of equity-oriented schemes was 40.1% of the industry assets in August 2020, down from 42.1% in February 2020. Individual investors held a lower share of industry assets, i.e. 52.1% in April 2020, compared with 52.7% in February 2020 and 52.2% in March 2020.² Despite the ill effects of the pandemic COVID 19, the Indian Mutual Fund Industry has gradually recovered its position in the last year. The proportionate share of equity-oriented schemes has experienced massive growth to 46% of industry assets in August 2021. Individual investors hold a much higher share (from 51.5% in August 2020 to 53.7% in August 2021). Further, the growth of assets for individual investors stood at Rs.19.40 lakh crores in August 2021 as against Rs.14.32 lakh crores in August 2020³.

Investors prefer multi-cap funds to gain significant flexibility in terms of returns and risks. These diversified equity funds invest in stocks of different companies with varied market capitalizations, combining large-cap, mid-cap and small-cap stocks. But these funds also experienced severe dampening effects of coronavirus for nearly six (6) months from the outburst of the COVID-19 pandemic. However, these funds gradually turned to provide positive signs since August 2020.

6.1 Compound Annual Growth Rate (CAGR):

The formula for computing CAGR is given below:

$$\text{CAGR} = (\text{End value of an investment} / \text{beginning value of an investment})^{1/n} - 1$$

where n = time horizon, i.e., number of years.

CAGR of the funds and the benchmark index are presented in Table 1.

Table 1: CAGR of the Fund & the Benchmark (in %)

Fund & benchmark	1Y	Rank	3Y	Rank	5Y	Rank	8Y	Rank
BMF	65.31	2	13.99	1	13.13	3	17.36	4
	O		O		U		O	
IPMF	59.32	4	10.42	5	12.39	4	18.67	2
	O		U		U		O	
NIMF	66.15	1	10.68	4	12.04	5	17.70	3
	O		U		U		O	
IIMF	64.91	3	13.65	2	14.64	1	22.83	1
	O		O		O		O	
S&P BSE 500	55.64	5	13.51	3	14.38	2	16.84	5

Source: Computed by researchers

U = Underperformance; O = Outperformance

²www.amfiindia.com

³https://www.amfiindia.com/research-information/other-data/industry-data-analysis

Table 1 reveals that IIMF outperformed the benchmark index during the entire study period and remained the best-performing fund in terms of CAGR. BMF outperformed the benchmark on 3 out of 4 occasions barring 5-year. IPMF and NIMF performed better than the index on 2 occasions (1-year and 8-year). All the funds outperformed the benchmark in 1-year and 8-year. A look at the CAGR of the funds and the benchmark reveals that the returns are double-digit during the entire period of study. As such, it can be concluded that the funds were successful in meeting the expectations of the investors in terms of CAGR. The surprising thing is that the chosen funds and the benchmark index delivered the highest returns during the pandemic (1-year).

6.2 Standard Deviation

Standard Deviation (SD) measures the volatility in prices. In other words, SD is a measure of the total risk associated with a particular investment. Higher the standard deviation, the more discrete the return from an investment with increased riskiness. Table 2 exhibits the standard deviation of the funds and that of the benchmark index.

Table 2: Risk of the Fund and the Benchmark (in%)

Fund & benchmark	1Y	Rank	3Y	Rank	5Y	Rank	8Y	Rank
BMF	14.85	3	21.25	1	18.31	1	17.22	1
	U		O		O			
IPMF	17.14	4	23.71	3	19.69	3	18.07	3
	U		U		U			
NIMF	20.67	5	27.62	5	23.02	5	21.15	5
	U		U		U			
IIMF	13.52	1	23.92	4	20.56	4	19.77	4
	O		U		U			
S&P BSE 500	13.69	2	22.57	2	19.06	2	17.65	2

Source: Computed by researchers

It is evident from Table 2 that the total risk of the funds and that of the benchmark index were least in the pandemic period (1-year). BMF outperformed the benchmark on 3 out of 4 occasions barring 1-year. However, IPMF and NIMF underperformed the benchmark during the entire study period in terms of total risk. Further, NIMF remained the riskiest fund throughout the study period. The performance of IIMF is also not satisfactory since it outperformed the index only in 1-year.

6.3 Sharpe Ratio

Sharpe ratio measures the risk-adjusted performance of a particular investment. The higher an investment's Sharpe ratio, the better its risk-adjusted performance is.

This ratio, developed by William Forsyth Sharpe, examines the risk-adjusted return for an investment. It is the extra return from a mutual fund over the risk-free return. The formula to compute Sharpe Ratio is:

$$\text{Sharpe ratio} = (R_i - R_f) / SD_i$$

Where R_i is the return from a particular investment, R_f is the risk-free return, and SD_i is the total risk associated with the investment.

Table 3 shows the risk-adjusted return of the fund and the benchmark.

Table 3: Risk-adjusted Return of the Fund and the Benchmark

Fund & benchmark	1Y	Rank	3Y	Rank	5Y	Rank	8Y	Rank
BMF	3.9199	2	0.3242	1	0.3296	3	0.5961	3
	O		O		U			
IPMF	3.0458	4	0.1401	4	0.2685	4	0.6403	2
	U		U		U			
NIMF	2.8562	5	0.1297	5	0.2147	5	0.5009	5
	U		U		U			
IIMF	4.2759	1	0.2740	3	0.3666	2	0.7956	1
	O		U		U			
S&P BSE 500	3.5459	3	0.2839	2	0.3821	1	0.5515	4

Source: Computed by researchers

It is observed from Table 3 that the risk-adjusted returns experienced a dramatic boom during the pandemic (1-year). It is seen that IIMF and BMF outperformed the benchmark index during the 1-year (IIMF being the highest overall); IPMF underperformed the benchmark during most of the years barring the 8-year. NIMF underperformed the index throughout the study period. Further, all the funds underperformed the benchmark index in 5-year. BMF was successful in delivering superior risk-adjusted return than the benchmark on 3 out of 4 occasions except for 5-year. Amongst the funds, IIMF remained the best performer in the 1-year, 5-year and 8-year periods.

6.4 Beta

It measures the sensitivity of a mutual fund scheme in relation to market movements. It can be computed by dividing the covariance of excess returns from a mutual fund and excess returns from the benchmark index by the variance of excess returns of the benchmark index above the risk-free return. Beta > 1 implies that the fund is aggressive in relation to the benchmark, while Beta < 1 signifies that the fund is defensive or conservative with respect to the benchmark index.

6.5 Alpha

It determines the efficiency of the fund managers in choosing quality stocks for investment. Positive Alpha denotes that the fund managers are successful in picking quality stocks. Alpha measures performance on a risk-adjusted basis. It is a risk-return indicator that can help one judge the fund's performance. It is often considered to represent the value that a portfolio manager adds or subtracts from a fund portfolio's return. A positive alpha means the fund has outperformed its benchmark index (Kumar, 2020).

6.6 R-Squared (RSQ)

It examines the extent of diversification of mutual fund schemes. An R-squared value of more than 0.65 generally indicates excellent diversification of funds. The value of RSQ ranges between 0 and 1. There exists an inverse relationship between RSQ and unsystematic risk. The higher the RSQ, the lower will be the unsystematic risk. Beta, Alpha and RSQ values are exhibited in Table 4.

Table 4: Beta, Alpha and RSQ of the Funds

Fund & benchmark		1Y	Rank	3Y	Rank	5Y	Rank	8Y	Rank
BETA	BMF	0.9748	3 rd	0.9031	4 th	0.9182	4 th	0.9373	4 th
		D		D		D			
	IPMF	1.1071	2 nd	1.0070	3 rd	0.9811	3 rd	0.9701	3 rd
		A		A		D		D	
	NIMF	1.3283	1 st	1.1453	1 st	1.1280	1 st	1.1167	1 st
		A		A		A		A	
	IIMF	0.7997	4 th	1.0091	2 nd	1.0101	2 nd	1.0428	2 nd
		D		A		A		A	
ALPHA	BMF	0.6319	2 nd	0.1320	1 st	(-0.0017)	2 nd	0.1202	3 rd
	IPMF	(-0.1659)	3 rd	(-0.2165)	3 rd	(-0.1127)	3 rd	0.1815	2 nd
	NIMF	(-0.5978)	4 th	(-0.2785)	4 th	(-0.2605)	4 th	(-0.0435)	4 th
	IIMF	1.2665	1 st	0.0327	2 nd	0.0346	1 st	0.3971	1 st
RSQ	BMF	0.8073	1 st	0.9200	1 st	0.9138	1 st	0.9234	1 st
	IPMF	0.7813	2 nd	0.9189	2 nd	0.9028	2 nd	0.8984	2 nd
	NIMF	0.7734	3 rd	0.8755	4 th	0.8728	4 th	0.8686	3 rd
	IIMF	0.6555	4 th	0.9062	3 rd	0.8777	3 rd	0.8669	4 th

Source: Computed by researchers

A = Aggressive mutual fund, D = Defensive mutual fund

Table 4 shows that NIMF remained the most aggressive fund. On the contrary, BMF remained defensive during the entire period. IIMF remained aggressive in 3, 5 and 8 years, whereas it was conservative in 1-year. IPMF was defensive in 5-year and 8-year but aggressive in 1-year and 3-year. Beta values of different periods depict that IPMF and NIMF

remained the most aggressive during the pandemic (1-year), whereas IIMF remained the most conservative during the pandemic period.

In terms of the stock-picking ability of the fund managers, it is noticed from alpha values (Table 4) that IIMF was the best-performing fund in 1-year, 5-year and 8-year, whereas BMF remained the best performer in 3-year. The fund managers of NIMF performed miserably throughout the study period and failed in quality stock picking. In the case of IPMF, the performance of fund managers was satisfactory only in 8-year. BMF generated positive alpha values on 3 out of 4 occasions except for 5-year. The performance of fund managers during COVID-19 (1-year) as regards the selection of stocks was very good for BMF and IIMF. However, the fund managers of IPMF and NIMF didn't perform well during the pandemic (1-year).

RSQ values from Table 4 depict that BMF was the most successful fund in terms of diversification during the entire study period. IPMF stood second in terms of diversification throughout the periods. Further, all the funds were successful in reducing the unsystematic risk component quite satisfactorily in 3-year, 5-year and 8-year (RSQ values over 0.85). However, COVID-19 impacted the diversification adversely, which is evident from the lowest RSQ values of the funds in the 1-year in comparison to other periods. In terms of diversification, the pandemic (1-year) scenario was the worst among the different periods for all the funds.

VI. CONCLUSION

The study's findings are summarised as follows based on research questions:

- (1) Funds succeeded in meeting the expectations of the investors in terms of CAGR. The funds provided double-digit returns during the entire study period (Table 1). All the funds outperformed the benchmark in 1-year and 8-year. Amongst the funds, IIMF outperformed the benchmark index during the entire study period. It also remained the best-performing fund. BMF outperformed the benchmark on 3 out of 4 occasions barring 5-year. IPMF and NIMF performed better than the index in 1-year and 8-year.
- (2) A surprising observation is that the total risk of the funds and that of the benchmark index were more in the pre-pandemic period (Table 2). BMF remained the best-performing fund during the pre-COVID period (3-year, 5-year and 8-year) and outperformed the benchmark. However, IPMF and NIMF performed poorly and remained riskier than the benchmark during the entire study period. Further, NIMF remained the riskiest fund throughout the study period (both pre and post-Covid). IIMF outperformed the index only in 1-year.
- (3) Amongst the funds, IIMF remained the best performer in the 1-year, 5-year and 8-year periods in terms of risk-adjusted return (Table 3). BMF generated a superior risk-adjusted return than the benchmark on 3 out of 4 occasions except for 5-year. NIMF underperformed the index throughout the study period. IPMF underperformed the benchmark during most of the years except for 8-year. Moreover, the risk-adjusted returns experienced a dramatic boom during the last 1-year.
- (4) NIMF remained the most aggressive fund, both in the pre and post-COVID-19 periods (Table 4). On the contrary, BMF remained defensive during the entire pre and post-COVID-19 period. IIMF remained aggressive in the pre-COVID period of 3, 5 and 8 years, whereas it was conservative in the post-COVID period (1-year). IPMF was defensive in 5-year and 8-year but aggressive in 1-year and 3-year.
- (5) In terms of the stock-picking ability of the fund managers, it is observed from alpha values (Table 4) that IIMF was the best performer in 1-year, 5-year and 8-year, whereas BMF remained the best-performing fund in 3-year. The fund managers of NIMF performed miserably throughout the study period and failed in quality stock picking. In the case of IPMF, the performance of fund managers was satisfactory only for 8-year. BMF generated positive alpha values on 3 out of 4 occasions except for 5-year. The performance of fund managers in selecting quality stocks during COVID-19 is very good for BMF and IIMF. However, the fund managers of IPMF and NIMF didn't perform well during the pandemic.
- (6) RSQ values (Table 4) portray that BMF was the most successful fund in terms of diversification during the entire study period. IPMF stood second in terms of diversification throughout the periods. Furthermore, all the funds succeeded in reducing the unsystematic risk component in 3-year, 5-year and 8-year (RSQ values over 0.85). However, COVID-19 impacted the diversification adversely, which is evident from the lowest RSQ values of the funds in the 1-year in comparison to other periods.
- (7) The results reveal that the funds performed exceptionally well during the pandemic period (1-year) in terms of CAGR, total risk and risk-adjusted return. Two funds (IPMF, NIMF) remained most aggressive during the pandemic, whereas IIMF was the most defensive fund during this period. The fund managers of BMF and IIMF performed well, but the fund managers of IPMF and NIMF performed poorly during the pandemic in terms of quality stock picking. Further, the funds fared poorly in diversification during the pandemic in comparison to other periods. Nevertheless, RSQ values of 1-year indicate that the fund managers did reasonably well in minimising unsystematic risk.

SCOPE FOR FUTURE RESEARCH

The researchers may explore the following areas for further research:

- ❖ A comparative study between actively managed equity funds and passively managed equity funds (like index funds) can be undertaken.
- ❖ A detailed study on the perception of investors towards mutual funds can be an area of research.
- ❖ A comparative study on the performance between direct plans and regular plans of mutual funds can be undertaken.
- ❖ A comparison between the performance of multi-cap equity funds and other equity funds (large-cap funds, mid-cap funds, small-cap funds etc.) may be an area of research.

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DISCLOSURE: The authors/researchers do not have any investment in any of the funds discussed in the study.

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