



Performance evaluation of mutual fund before and during the Covid 19 pandemic in India

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Abstract

Mutual Fund companies are financial intermediaries providing financial services to small investor through mobilization of their funds, when the investors invest in a mutual fund. Mutual funds are one of the best investments avenue ever created because they are very cost efficient and very easy to invest in capital market. In this research paper an attempt is made on a comparative performance analysis of the growth-oriented equity diversified schemes for 1 year prior to outbreak of Covid-19 and 1 year during Covid-19 on the basis of return and risk evaluation. The analysis was achieved by assessing various financial tests like Return of the fund, Sharpe Index, Treynor Index, Standard Deviation and Beta. The used data is opening and closing NAVs for one year before Covid-19 effect and one year during Covid-19 pandemic. The source of data is the website of Association of Mutual Funds in India and Money Control and 10 schemes were used for analysis of the funds. It is important to know and study the risk involved in fund and the substantial value of returns incurred through it.

Keywords: net asset value, sharpe index, treynor index, Covid-19 pandemic

Introduction

A mutual fund is a professionally managed of collective investments that pools money of many investors and invests it in stocks, bonds, short-term money market instruments, government securities and others. In a mutual fund, the fund manager, who is also known as the portfolio manager, trades the fund's underlying securities, realizing gain or loss of capital and collects the dividend or interest income in the mutual fund.

Mutual fund is regularly traded in the market till 2019 but there has unpredictable volatility seen in capital market since January 2020 due to uncertainty in the market and also in human life due to covid 19 pandemic period in India. The lockdown also has adversely have affected all service sector. The never seen situation before all major cities' investors repeal their investment for survives in this situation and its indirect and direct effect on Indian economy during the year 2020. However, Indian market sharp fall seem to be stabiles on the back of strong monetary support by RBI and SEBI

There is also seen surprisingly positive change in mutual fund industry because of the digitalization people grab more knowledge about that and also understand important of investment in human life is necessary. There has believed that mutual fund is safe investment in the capital market camper to others. Indian equity market fall 35% to 40% during February and March due the pandemic situation while in the long run, equity market have trended upward due to awareness in the investors. Within the period of January 2019 to December 2020 various funds perform differently in market. In general open ended fund performance is seen superior to history performance of funds while close ended fund performance is steady growing in the market. Hence, the investor should be more attentive while investing in best performing fund.

The present research aims to study the mutual fund investment pattern and preference of investment avenues of retail investors in the before and during the outbreak of COVID 19 pandemic in India.

Literature Review

Sangiseti Manoj and Bondu Avinash (2020) have analysed performance evaluation of mutual fund before and during the outbreak of covid 19 pandemic situation in India. Researchers have objectives of this paper is tries to understand behaviour of the mutual funds returns and their performance ranking as per sharpe and treynor index in the period prior to the Covid-19 pandemic as well as during outbreak of Covid-19 pandemic. Researcher has conclude that there is impact of covid 19 on the fund and return went to down during pandemic situation.

Suman and Reeta (May 2020) have examined the impact of covid 19 panademic in mutual fund investment. Researchers have studies the growth in assets under management companies in India before and during covid 19. There has taken data of April 2019 to April 2020 for the research study. Researchers have concluded that the impact of covid 19 pulled down average asset under management of mutual fund companies during lockdown period due to panademic situation in the India.

Tapan Kumar Samanta (2019) has summarized the study on the Performance of Mutual Fund Scheme in India. The objective of the study is to analyze the trends and compare the performance in returns of growth oriented selected equity diversified mutual fund schemes. The researcher has use sample of ten mutual fund schemes comprising of all equity diversified large cap funds. Researcher has observed that majority of mutual funds selected

for study have outperformed under Sharpe Ratio and Treynor Ratio.

Research GAP

The researcher has reviewed a past study as literatures identify research gap itself. They take limited number of sample for research. The researcher could not do their research as per current mutual fund trend. All research done in past time but recently mutual fund should have different trend in capital market and there is only few researches done during covid 19 pandemic situation. People should have awareness for invest their money in the mutual fund by investing various kind of schemes which available in the mutual fund.

Research Methodology

Objective of the study

- To study the performance evaluation of selected mutual fund in term of their risk and return from various fund houses
- To understand behavior of NAV of different scheme prior and during covid 19 pandemic in India
- To know mutual fund performance of various schemes under the category of Large Cap fund in India by using Sharpe and Treynor model

Source of Data

This study is depended on secondary data. The secondary data is about ten mutual fund schemes under the category of large cap fund from ten fund houses. The performance of sampled mutual fund schemes is evaluated with the help of Net Asset Value (NAV). The needed daily NAV for sampled mutual funds was taken from the mutual funds websites of Association of Mutual

Funds in India (AMFI). The other related information was taken from books, journals, magazines and various websites.

Period of Study

The present study tried to analyze performance of mutual fund industry by covering the time period from the January 2019 to December 2020.

Sample Size

The present study tried to analyze performance of 10 large cap mutual fund by covering the time period from the January 2019 to December 2020.

Hypothesis

Ho: There is no significant difference in before and during covid 19 pandemic in the performance of mutual fund scheme by calculating Sharpe and Treynor ratio during the study period
 H₁: There is significant difference in before and during covid 19 pandemic in the performance of mutual fund scheme by calculating Sharpe and Treynor ratio during the study period

Tools and Techniques of the Study

For the purpose of analysed researcher has use average, standard deviation, beta, Sharpe Index and Treynor Index.

Data analysis and Interpretation:

In the below case the beginning and ending Net Asset Values concerned to various funds under the category of Large Cap Fund has been extracted from published information prior year of Covid-19 pandemic started from 01st January 2019 to 31st December 2019.

Table 1: Large Cap Fund on 2019

Sr. No.	Scheme Name	NAV (1 st Jan 2019)	NAV (31 st Dec 2019)	Return
1	Canara RobecoBluechip Equity Fund –Growth	23.54	27.15	13.30%
2	JM Large Cap Fund –Growth	65.09	68.17	4.52%
3	Axis Bluechip Fund-Growth	27.09	32.05	15.48%
4	BNP Paribas Large Cap – Growth	83.35	97.33	14.36%
5	IDBI India top 100 Equity Fund-Growth	22.96	25.81	11.04%
6	IDFC large cap fund-Growth	30.75	33.94	9.40%
7	HSBC Large cap Equity Fund-Growth	196.733	225.80	12.87%
8	Baroda Large Cap Fund-Growth	13.68	15.29	10.53%
9	ICICI Prudential Bluechip Fund – Growth	40.67	44.49	8.59%
10	Indiabulls Bluechip Fund-Growth	20.02	22.57	11.30%

Return is to be calculated as the differences in the NAV positions prior one year of Covid-19 pandemic by taking into consideration the beginning and ending NAV's of the year 2019. These returns

are calculated in the short run. So, the dividend is not considered. Hence, the fund return is directly indicating the performance in capital value of the fund.

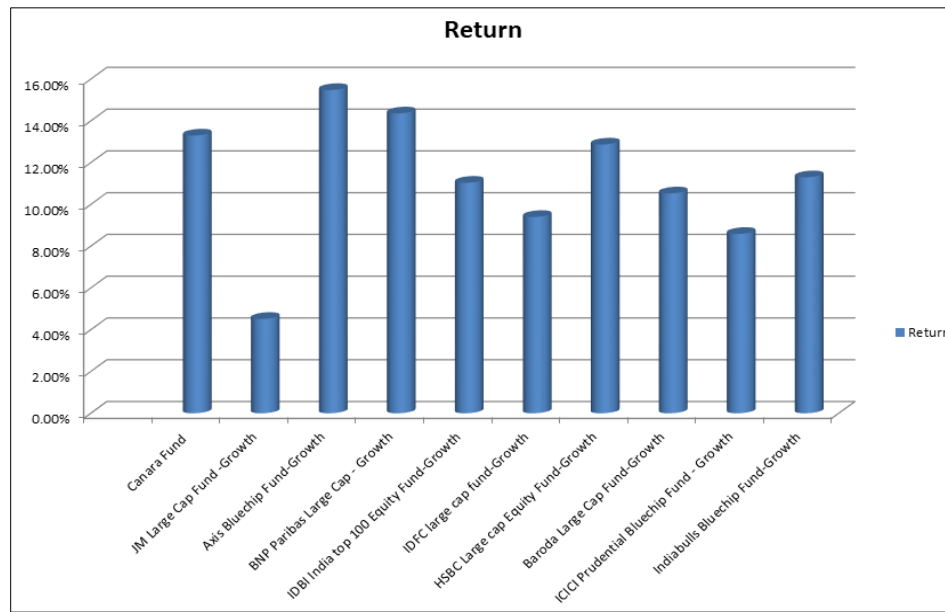


Fig 1: Return of Large Cap Mutual Fund in 2019

In this year investors get satisfactory return because this period was not part of corona pandemic. Among all 10 schemes Axis

Bluechip Fund is fetching more return 15.48 and when JM Large Cap Fund was gave least return 4.52 in 2019.

Table 2: Performance of fund based on Sharpe and Treynor Method

Sr. No.	Scheme Name	Return	Sharpe Ratio	Rank	Treynor Ratio	Rank
1	Canara RobecoBluechip Equity Fund –Growth	13.30%	0.38	3	8.20	3
2	JM Large Cap Fund –Growth	4.52%	-0.14	10	-3.37	10
3	Axis Bluechip Fund-Growth	15.48%	0.51	1	11.56	1
4	BNP Paribas Large Cap – Growth	14.36%	0.44	2	9.61	2
5	IDBI India top 100 Equity Fund-Growth	11.04%	0.25	6	5.42	7
6	IDFC large cap fund-Growth	9.40%	0.17	8	3.78	8
7	HSBC Large cap Equity Fund-Growth	12.87%	0.33	4	7.01	4
8	Baroda Large Cap Fund-Growth	10.53%	0.23	7	5.66	6
9	ICICI Prudential Bluechip Fund – Growth	8.59%	0.13	9	3.15	9
10	Indiabulls Bluechip Fund-Growth	11.30%	0.25	5	5.70	5

The Sharpe Index and Treynor Index for Top 10 All large cap mutual fund schemes - 2019 depicted in table 2. Large cap Equity

fund schemes are specially framed for the risk taker investors.

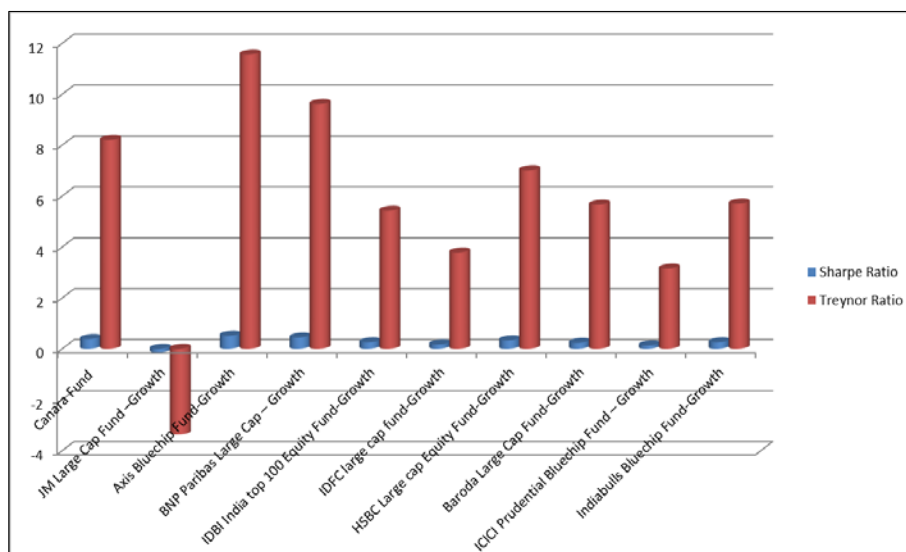


Fig 2: Graphical Presentation of Sharpe and Treynor Index Values

As per the Sharpe Index method, Axis Bluechip Large Cap Fund-Growth is the best performer with 0.51 Sharpe Index and placed in the 1st position according to ranking. Even the time prior to the outbreak of Covid-19, JM Large Cap Fund returns not met riskless interest rate with -0.14 Sharpe index. Hence, it seems that this period damaged investors who invested in JM Large Cap Fund. As per the Treynor Index method, Axis Bluechip Large

Cap Fund-Growth is the best performer with 11.56 Treynor Index and placed in the 1st position according to ranking. Even the time prior to the outbreak of Covid-19, JM Large Cap Fund returns not met riskless interest rate with -3.37 Treynor index. Hence, it seems negative Index that this period damaged investors who invested in JM Large Cap Fund.

Table 3: Large Cap Fund on 2020

Sr. No.	Scheme Name	NAV (1 st Jan 2020)	NAV (31 st Dec 2020)	Return
1	Canara Robeco Bluechip Equity Fund –Growth	27.22	33.41	22.74%
2	JM Large Cap Fund –Growth	68.23	80.51	18.00%
3	Axis Bluechip Fund-Growth	32.03	38.37	19.79%
4	BNP Paribas Large Cap – Growth	97.38	113.72	16.78%
5	IDBI India top 100 Equity Fund-Growth	25.82	30.05	16.38%
6	IDFC large cap fund-Growth	33.93	39.85	17.45%
7	HSBC Large cap Equity Fund-Growth	226.12	261.60	15.69%
8	Baroda Large Cap Fund-Growth	15.32	17.72	15.67%
9	ICICI Prudential Bluechip Fund – Growth	44.56	50.49	13.31%
10	Indiabulls Bluechip Fund-Growth	22.58	24.41	8.10%

Return is to be calculated as the differences in the NAV positions during the year of Covid-19 pandemic by taking into consideration the beginning and ending NAV’s of the year 2020.

These returns are calculated in the short run. So, the dividend is not considered. Hence, the fund return is directly indicating the performance in capital value of the fund.

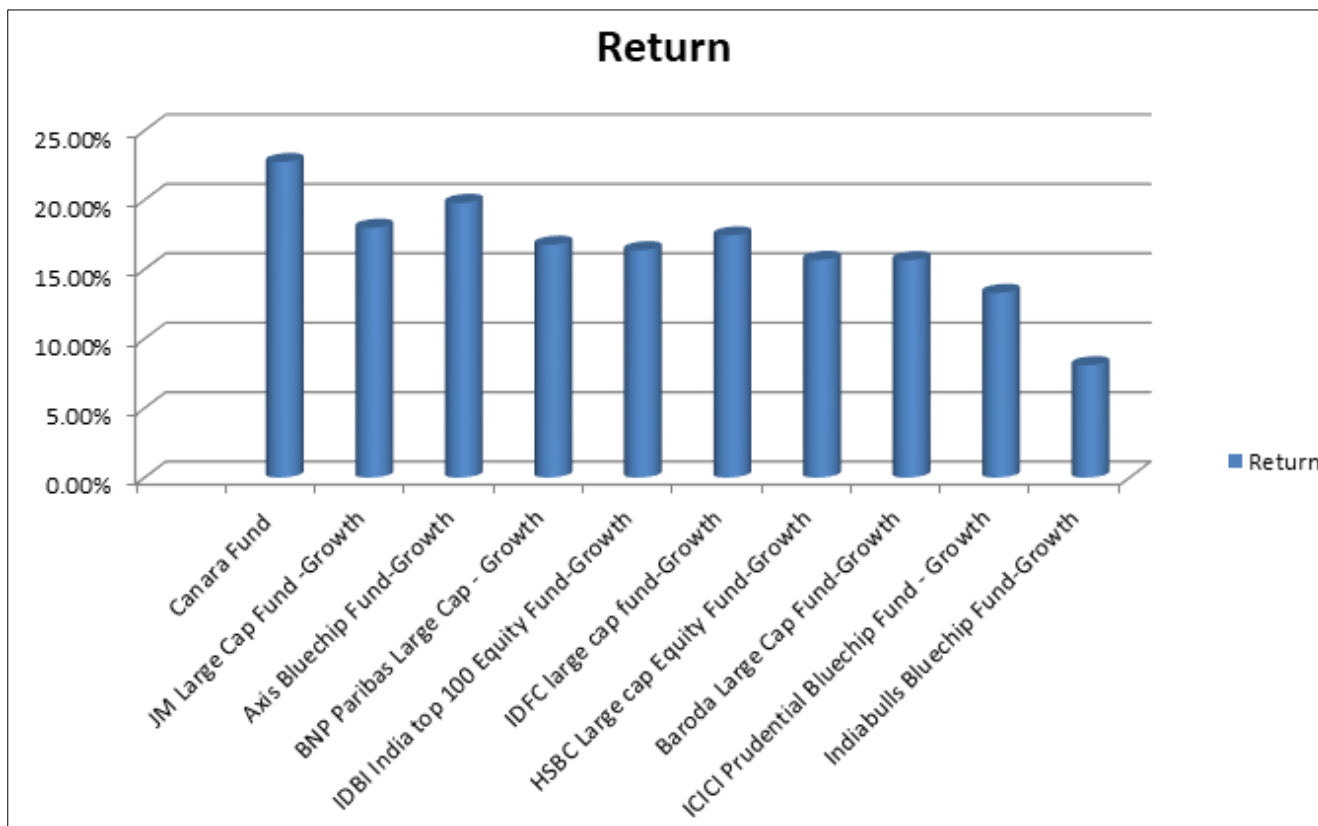


Fig 3: Return of large cap mutual fund in 2020

In this year investors get satisfactory return because investors more aware about investment due to pandemic and all understand the importance of investment in pandemic time. Among all 10

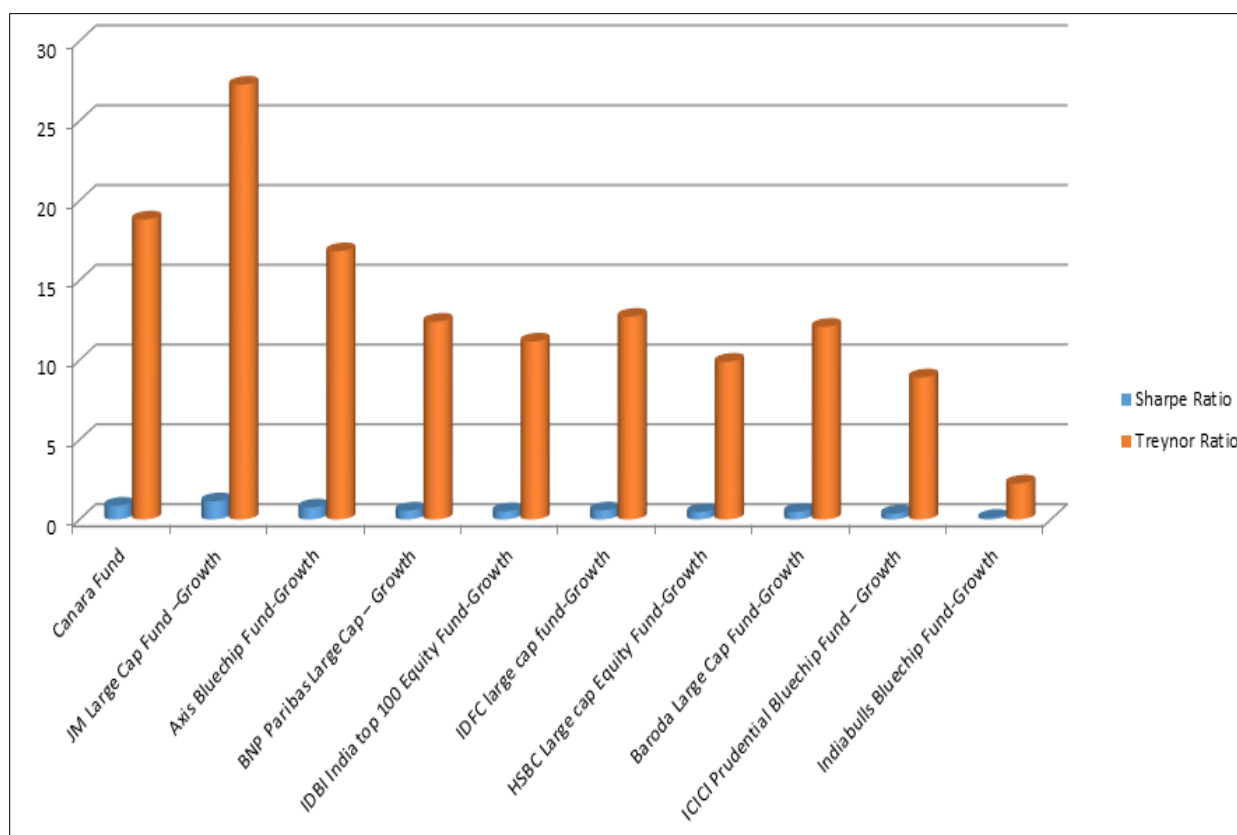
schemes Canara Robeco Bluechip Fund is fetching more return 22.75% and when Indiabulls Bluechip Fund was gave least return 8.10% in 2020.

Table 4: Performance of fund based on Sharpe and Treynor Method

Sr. No.	Scheme Name	Return	Sharp Ratio	Rank	Treyno Ratio	Rank
1	Canara RobecoBluechip Equity Fund –Growth	22.74%	0.86	2	18.81	2
2	JM Large Cap Fund –Growth	18.00%	1.14	1	27.26	1
3	Axis Bluechip Fund-Growth	19.79%	0.75	3	16.82	3
4	BNP Paribas Large Cap – Growth	16.78%	0.56	5	12.40	5
5	IDBI India top 100 Equity Fund-Growth	16.38%	0.52	6	11.16	7
6	IDFC large cap fund-Growth	17.45%	0.57	4	12.71	4
7	HSBC Large cap Equity Fund-Growth	15.69%	0.46	8	9.89	8
8	Baroda Large Cap Fund-Growth	15.67%	0.48	7	12.08	6
9	ICICI Prudential Bluechip Fund – Growth	13.31%	0.36	9	8.91	9
10	Indiabulls Bluechip Fund-Growth	8.10%	0.10	10	2.26	10

The Sharpe Index and Treynor Index for Top 10 All large cap mutual fund schemes - 2020 depicted in table 4. Large cap Mutual

fund schemes are specially framed for the risk taker investors.

**Fig 4:** Graphical Presentation of Sharpe and Treynor Index Values

As per the Sharpe Index method, JM Large Cap Fund-Growth is the best performer with 1.14 Sharpe Index and placed in the 1st position according to ranking. Even the time during to the outbreak of Covid-19, there is no adverse effect of that on Sharpe index. Hence, it seems that this period investors get good return who invested in JM Large Cap Fund. When Indiabulls is the least performance with 0.10 sharpe Index among all large cap mutual fund. As per the Treynor Index method, JM Large Cap Fund-Growth is the best performer with 27.27 Treynor Index and placed in the 1st position according to ranking. Even the time of outbreak of Covid-19, JM Large Cap Fund returns met riskless interest rate compare to last year 2019. Hence, it seems there is no effect of pandemic on Treynor Index that this period investors who invested in JM Large Cap Fund get highest return. When

Indiabulls Bluechip Fund had least performance with 2.26 Treynor Index among all large cap mutual fund.

So, as per the data analysis and interpretation researcher has to concluded that null hypothesis is accepted because There is no significant difference in before and during covid 19 pandemic in the performance of mutual fund scheme by calculating Sharpe and Treynor ratio during the study period.

Suggestion

Investors are recommended to take a little risk in their portfolio so as to get maximize their own returns since the markets have shown recovery. It is a good time to invest in mutual fund since the market is boost as soon as vaccine done for COVID 19

Conclusion

The impact of COVID-19 is little on mutual fund industry. The investment industry did not show downfall but still effect is visible upward. In the India There is stimulus packages announced by Reserve bank of India and Ministry of finance to encourage the Mutual Fund investors to flow in their return from their investment. The investors also understand the investment important in their life due this pandemic period and also show increase in retail investors in mutual fund industry. However, the future of mutual fund industry in India regards favorable and perception of retail investors will also positive toward investment

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