

## **Performance of Indian Mutual Funds, Risk and Returns during Covid 19 - An Overview**

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### **Abstract**

In recent days the most importance challenge for a business is sources of funds, the funds will operate and maintain the smooth functions of each and every business in the world. When compared to directly investing in individual securities, mutual funds have both advantages and disadvantages. Mutual funds are generally classified by their principal investments. The four main categories of funds are money market funds, bond or fixed income funds, stock or equity funds, hybrid funds and debt funds. Indexing (passive managed) or actively managed are the major categories of investment funds. In our research is about the an overview on the performance of Indian mutual funds and move ahead to rural public's to identify the actual information on its growth. On this we examine the various public and private mutual funds business through web source information and suggest the importance of the mutual funds.

This research is conducted to find out the performance of Indian mutual fund schemes from April 2015 to March 2020 and its risk and returns during Covid 19. To analyze the major public-sector and private-sector sponsored business mutual funds in India. To attain the objective of the study, various portfolio techniques and statistical tools are applied on a sample size of 18 mutual fund schemes developed by Sharpe ratio, Treynor ratio, Jensen ration and Beta has been computed. This research is characterized the results on the schemes risk and return relationship of sample mutual fund managed by asset management companies with their benchmark index. The study found that majority of the schemes are not providing significant positive return in terms of relative risk adjusted measures and absolute risk adjusted measures within the study period.

**Keywords:** Mutual Funds, Performance, public-sector and private-sector sponsored mutual funds, during covid-19.

### **INTRODUCTION**

The investors and number of saving groups on investment are having regular monetary goals and definitely trust with the Mutual fund. The money thus collected is then invested in capital market instruments such as shares, debentures and other securities. Mutual funds are dynamic financial institutions (FIs) which play a crucial role in an economy by mobilizing savings and investing them in the stock-market, thus establishing a direct link between savings and the capital market. Therefore, the activities of mutual funds have both short-and long-term impact on the savings pattern, growth of capital markets and the economy. The Mutual fund is a basket of securities, which contains variety of financial products in various combinations and these various combinations of financial securities are individually called Portfolio's. In a Mutual fund company the Fund Managers make Portfolios of different combinations they continuously analyze the market risk and expected returns so that a positive return can be provided to the Mutual fund Investors. This paper focuses one volution and growth of mutual fund in India.

Mutual Funds are a topic which is of enormous interest not only to researchers all over the world, but also to investors. A mutual fund as a medium-to-long term investment option is preferred as a suitable investment option by investors. With so many new entrants into the market, the question is which mutual fund to choose. Though the investment objectives define investors preference among fund types (balanced, growth, dividend etc.) the choice of fund based on a sponsor's reputation remains to be probed.

There are two distinct kinds of sponsors in the Indian mutual fund industry: public and private. The number of funds floated by public sector sponsors is minimal compared to private-sector players. Due to various characteristics such as responsibility, commitment, and so on, there is a hypothetical presumption that the private sector outperforms the governmental sector. The mutual fund industry will be used to test this hypothesis. Despite the reality that many studies document mutual fund investment measures are important of whether they are public or private sector supported, researchers do not look into the impact of portfolio characteristics and the varying effect of diversification on mutual fund performance.

### **OBJECTIVES OF THE STUDY**

- To analyze the major public-sector and private-sector sponsored business mutual funds in India.
- To examine the performance of public-sector mutual funds during Covid -19
- To examine the performance of private-sector sponsored mutual funds Covid -19
- To find the risk and returns of various mutual fund schemes during Covid -19
- To find the extent of diversification in the portfolio of securities in mutual funds.

### **LITERATURE REVIEW**

The amount of information available on evaluating mutual fund performance is vast. This section discusses a few research studies that had a significant impact on the writing of this paper. William F. Sharpe (1996) proposed a metric for evaluating portfolio performance. Drawing on results obtained within the field of portfolio analysis, economic expert Jack L. Treynor has steered a replacement predictor of open-end fund performance, one that differs from nearly all those used antecedently by incorporating the volatility of a fund's come in a very easy nonetheless substantive manner.

According to archangel C. author (1967) derived a risk-adjusted live of portfolio performance (Jensen's alpha) that estimates what quantity a manager's statement ability contributes to fund's returns. As indicated by Statman (2000), the e SDAR of a fund portfolio is that the excess come of the portfolio over the come of the benchmark index, wherever the portfolio is leveraged to own the benchmark index's variance.

S.NarayanRao , et. al., evaluated performance of Indian mutual funds in a very market through relative performance index, risk-return analysis, Treynor's quantitative relation, Sharpe's quantitative relation, Sharpe's live, Jensen's live, and Fama's live. The study used 269 open-ended schemes (out of total schemes of 433) for computing relative performance index. andBijan Roy, et. al., conducted associate degree empirical study on conditional performance of Indian mutual funds. This paper uses a method known as conditional performance analysis on a sample of cardinal Indian open-end fund schemes.

Mishra, et al., (2002) measured open-end fund performance exploitation lower partial moment. during this paper, measures of evaluating portfolio performance supported lower partial moment area unit developed. Risk from the lower partial moment is measured by taking into consideration solely those states within which come is below a pre-specified "target rate" like unhazardous rate.

KshamaFernandes (2003) evaluated open-end fund implementation in Republic of India. during this paper, chase error of index funds in Republic of India is measured .The consistency and level of chase errors obtained by some well-run open-end fund suggests that it's doable to achieve low levels of chase error underneath Indian conditions. At a similar time, there do appear to be periods wherever bound index funds seem to depart from the discipline of regulating.

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K. Pendaraki et al. studied construction of open-end fund portfolios, developed a multi-criteria methodology and applied it to the Greek market of equity mutual funds. The methodology relies on the mix of distinct and continuous multi-criteria call aid strategies for open-end fund choice and composition. UTADIS multi-criteria call aid methodology is utilized so as to develop mutual fund's performance models. Goal programming model is utilized to see proportion of elect mutual funds within the final portfolios.

Zakri Y. Bello (2005) matched a sample of socially accountable stock mutual funds matched to at random choose standard funds of comparable web assets to research variations in characteristics of assets command, degree of portfolio diversification and variable effects of diversification on investment performance. The study found that socially accountable funds don't disagree considerably from standard funds in terms of any of those attributes. Moreover, the impact of diversification on investment performance is major teams area unit mentioned below.

### METHODOLOGY AND ANALYSIS

The data has been collected from The Association of Mutual Funds in India (AMFI), Security Exchange board of India (SEBI), and from various private Indian Mutual Funds Limited, at present there are 44 assets management companies (AMCs) or mutual fund houses are at present. These companies manage the investments of investors to fetch them optimal returns and the details are as follows:

#### The List of Top Indian Mutual Fund companies and its level of Growth/Dividend

Table-1

Sl. No	Name of the major Mutual Fund companies in India
1.	CanaraRobeco Infrastructure - Growth
2.	LIC Government Sec Fund - Dividend
3.	Tata Balanced Fund -Dividend
4.	SBI Magnum Balanced Fund – Dividend
5.	Escorts Balanced Fund – Dividend
6.	Prudential ICICI Balanced -Growth
7.	Birla Sun life MNC Fund - Growth
8.	UTI Mid Cap Fund - Growth
9.	HDFC Equity Fund - Growth
10.	Reliance Growth - Growth
11.	Sahara Tax gain -Growth
12.	Sundaram Money Fund - Growth
13.	AXIS Long Term Equity Fund -Growth
14.	Franklin Build India Fund-Growth
15.	DSP-black rock small mid cap Fund -Dividend
16.	ABN AMRO Flexi Debt Fund-Growth
17.	Grindlays SSIF-Inst Plan - Growth
18.	S &P BSE Sensex

#### BY USING THE STATISTICAL TOOLS THE FOLLOWING ANALYSIS HAS BEEN DONE

1) **Sharpe ratio:** This ratio shows the risk-return performance of the portfolio.

$$\text{Sharpe Index} = \frac{\text{Portfolio average return (RP)} - \text{Risk free rate of return (RF)}}{\text{Standard Deviations of the Portfolio Return}}$$

2) **Treynor ratio:** It measure the returns earned in excess of that which could have been earned on investment that has no diversifiable risk.

$$\text{Treynor Index} = \frac{\text{Portfolio Average Return (Rp)} - \text{Risk Free Rate of Return (Rf)}}{\text{Beta Coefficient of Portfolio}}$$

3) **Jensen ratio:** This ratio measures the risk-adjusted performance of a security or portfolio in relation to the expected market return.

$$\text{Alpha } (\alpha) = (R_x - R_f) - \beta(R_m - R_f)$$

4) **Beta:** The beta measures the volatility or systematic risk of a security with comparison to the market as a whole.

Beta is calculated as,

$$\beta = \frac{\text{Covariance (Rx, Rm)}}{\text{Variance(Rm)}}$$

5) **Standard deviation:** It shows the historical volatility.

$$\sigma_x = \frac{\sqrt{\sum(R_x - R_x^-)^2}}{N}$$

### Return, risk, beta of diversified equity schemes

Table -2

Sl. No	SCHEMES	Schemes Returns (5 Years)	Monthly (Return/60)	Schemes Risk	BETA
1.	CanaraRobeco Infrastructure - Growth	28.7 %	0.4783	0.5 %	0.2392
2.	LIC Government Sec Fund - Dividend	6.2 %	0.1033	-2.0 %	-0.2066
3.	Tata Balanced Fund -Dividend	17.3 %	0.2883	-0.3 %	0.5883
4.	SBI Magnum Balanced Fund – Dividend	29.2 %	0.4867	0.2 %	0.0973
5.	Escorts Balanced Fund – Dividend	16.9 %	0.2817	-8.7 %	3.2976
6.	Prudential ICICI Balanced -Growth	21.7 %	0.3610	1.6 %	0.5776
7.	Birla Sun life MNC Fund - Growth	29.7 %	0.4950	-0.7 %	0.3465
8.	UTI Mid Cap Fund - Growth	31.9 %	0.5317	1.0 %	0.5317
9.	HDFC Equity Fund - Growth	14.6 %	0.2433	-0.1 %	0.2433
10.	Reliance Growth - Growth	16.6 %	0.2767	1.3 %	0.3597
11.	Sahara Tax gain -Growth	12.8 %	0.2133	1.4 %	0.2986
12.	Sundaram Money Fund - Growth	8.4 %	0.1400	0.5 %	0.0700
13.	AXIS Long Term Equity Fund -Growth	24.1 %	0.4017	0.6 %	0.2410
14.	Franklin Build India Fund-Growth	24.8 %	0.4133	-0.2 %	0.0826
15.	DSP-black rock small mid cap Fund -Dividend	22.6 %	0.3767	-0.4 %	0.1837
16.	ABN AMRO Flexi Debt Fund-Growth	0.0 %	0	-	0.000
17.	Grindlays SSIF-Inst Plan - Growth	0.0 %	0	-	0.000
18.	S &P BSE Sensex	37.60 %	1.0444	2.10 %	2.1932

### Inference-1

Table II represents the results of return, risk, beta of selected schemes with benchmark return and risk. It shows competency of these schemes to make out a strong case for investment. The maximum return was from UTI Mid Cap Fund –Growth – Growth and minimum return was from LIC Govt Sec Fund – Dividend. In table -

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2 its shows that , on comparing with schemes risk the LIC Govt Sec Fund is less risk than market risk and all other schemes are indicates the high riskier than the market risks. In the context of beta, it is observed from the table 1 that out of 17 schemes, only 7 schemes have registered a beta value greater than one indicated that they belonged to more risk category. The remaining 15 schemes have registered beta less than one which indicated that they belonged to low risk category.

**Ranking of sample schemes on the basis of SHARPE, TREYNOR, JENSEN measure (April 2015 to till 03 March 2020)**

**Table -3**

Sl. No	SCHEMES	SHARPE	RANK	TREYNOR	RANK	JENSEN	RANK
1.	CanaraRobeco Infrastructure - Growth	0.4783	5	1.999582	5	1.521282	5
2.	LIC Government Sec Fund - Dividend	0.1033	16	-0.5	18	-0.6033	18
3.	Tata Balanced Fund -Dividend	0.2883	10	0.490056	13	0.201756	13
4.	SBI Magnum Balanced Fund – Dividend	0.4867	4	5.002055	2	4.515355	2
5.	Escorts Balanced Fund – Dividend	0.2817	11	0.085426	15	-0.19627	16
6.	Prudential ICICI Balanced - Growth	0.3610	9	0.625	12	0.264	12
7.	Birla Sun life MNC Fund - Growth	0.4950	3	1.428571	7	0.933571	7
8.	UTI Mid Cap Fund - Growth	0.5317	2	1	8	0.4683	11
9.	HDFC Equity Fund - Growth	0.2433	13	1	8	0.7567	8
10.	Reliance Growth - Growth	0.2767	12	0.769252	10	0.492552	10
11.	Sahara Tax gain -Growth	0.2133	14	0.714334	11	0.501034	9
12.	Sundaram Money Fund - Growth	0.1400	15	2	4	1.86	3
13.	AXIS Long Term Equity Fund - Growth	0.4017	7	1.666805	6	1.265105	6
14.	Franklin Build India Fund-Growth	0.4133	6	5.003632	1	4.590332	1
15.	DSP-black rock small mid cap Fund -Dividend	0.3767	8	2.050626	3	1.673926	4
16.	ABN AMRO Flexi Debt Fund-Growth	0	17	-	16	0	14
17.	Grindlays SSIF-Inst Plan - Growth	0	17	-	16	0	14
18.	S &P BSE Sensex	1.0444	1	0.476199	14	-0.5682	17

### **Inference-2**

Table III represents the result of Sharpe measure and Treynor measure. It is observed from the table IV that higher positive value of Sharpe measure was found in Franklin Build India Fund – Growth (5.003632) which followed by SBI Magnum Balanced Fund – Dividend (5.002055) and LIC Govt security Fund- Dividend (-0.5). The sharpe ratio was favorable in all of the schemes analyzed, indicating that the funds were yielding higher returns than the risk-free rate. It also found from the table that 14 out of 18 schemes have better Sharpe ratios in comparison to the benchmark portfolios. In the perspective of the Treynor measure, table 2 showed that 8 out of 17 techniques beat the benchmark. UTI Mid Cap Fund-Grow this the top performer which followed by Birla Sun life MNC Fund - Growth. I also found from the table that 8 out of 17 schemes have better Treynor ratios in comparison to the benchmark portfolios. Jensen measurements are used in mutual fund systems. Results of Jensen measure revealed that 08 out of 17 schemes were showed positive alpha which indicated superior performance of the schemes and remaining 09 schemes had negative alphas. Among the entire schemes higher alpha was found with UTI Mid Cap Fund-Growth followed by UTI Long Term Advantage (G) Fund.

## SUMMARY AND CONCLUSIONS

The study found the both public-sector and private-sector sponsored in India. However, there is a major statistical difference between three classes of public-sector sponsored, private-sector Indian sponsored and private-sector foreign sponsored mutual funds. The Portfolio risk characteristics measured through private-sector Indian sponsored mutual funds seems to have outperformed both Public- sector sponsored and Private-sector foreign sponsored mutual funds.

## SCOPE FOR FUTURE RESEARCH

The research for measuring mutual fund performance has a huge amount of potential. For examining mutual fund performance, a variety of additional analytical hierarchical models could be investigated. Testing of fund performances in the long run can be done. Extended sample of public-sector sponsored, private sector Indian sponsored and private-sector foreign sponsored mutual funds can be taken for generating results. Portfolio risk through the measure of value at risk (VAR) can also be tested for differences in mutual fund classes.

## CONCLUSION

This paper shows the performance of 18 sample mutual fund schemes and an empirical investigation of sample mutual fund schemes, the schemes for the period from April 2015 to March 2020 (five years) of transition economy. The returns from the fund schemes were computed using the daily closing Net Asset Value of various schemes. The past performance of the selected schemes were evaluated on the basis of Sharpe, Treynor, and Jensen's measure whose results will be useful for investors for taking better investment decisions.

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