

# Performance Appraisal of Mutual Funds in India

## (A Case Study of Selected Financial Intermediaries)

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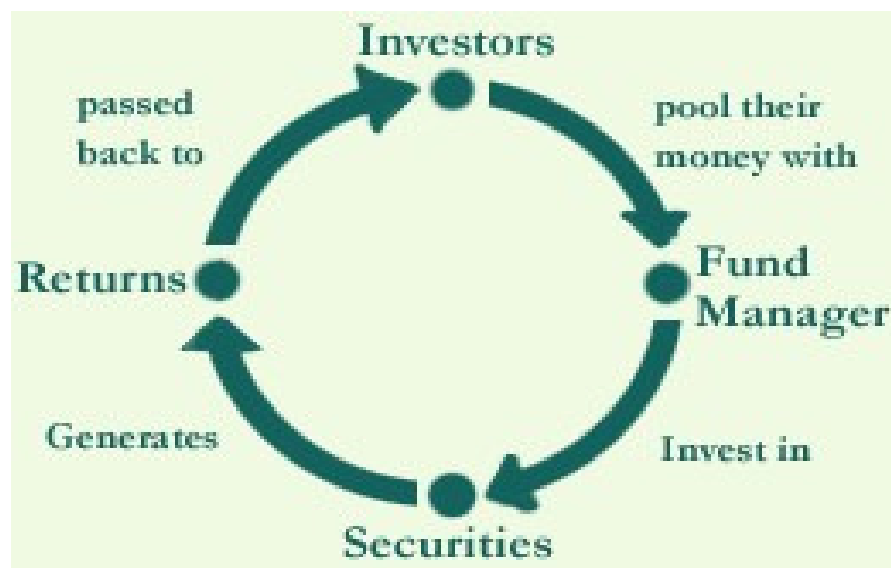
### ABSTRACT

In this paper the performance evaluation of Indian mutual funds in a bear market is carried out through relative performance index, risk-return analysis, Treynor's ratio, Sharp's ratio, Sharp's measure, Jensen's measure, and Fama's measure. The data used is monthly closing NAVs. The source of data is website of Association of Mutual Funds in India (AMFI). 24 schemes were used for analysis. Mean monthly (logarithmic) return and risk of the sample mutual fund schemes during the period were 0.53% and 6.50%, respectively, compared to similar statistics of 0.12% and 7.67% for market portfolio. The results of performance measures suggest that most of the mutual fund schemes in the sample of 24 were able to satisfy investor's expectations by giving excess returns over expected returns based on both premium for systematic risk and total risk.

**Key Words:** *Small Investors, Big Returns, Net Assets Value, Beta and Alpha*

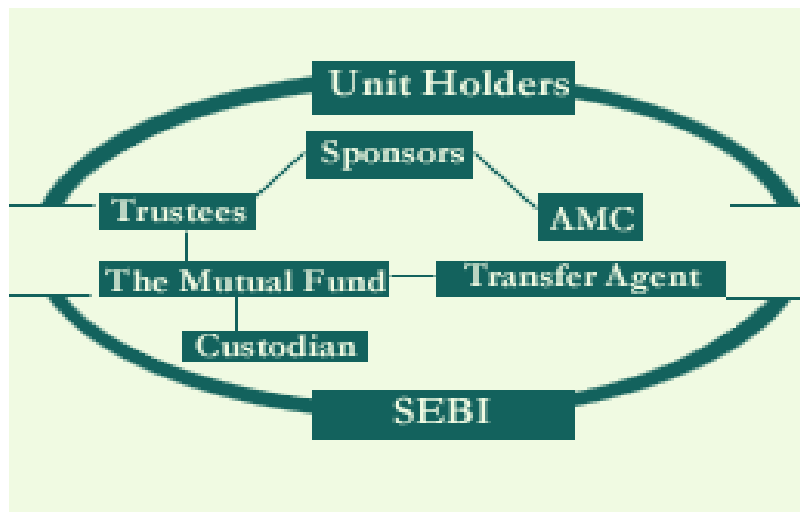
### CONCEPT OF MUTUAL FUND

A Mutual Fund is a trust that pools the savings of a number of investors who share a common financial goal. The money thus collected is then invested in capital market instruments such as shares, debentures and other securities.. Thus a Mutual Fund is the most suitable investment for the common man as it offers an opportunity to invest in a diversified, professionally managed basket of securities at a relatively low cost. The flow chart below describes broadly the working of a mutual fund:



**Fig.:** Showing working of Mutual Fund

SEBI Regulations require that at least two thirds of the directors of trustee company or board of trustees must be independent i.e. they should not be associated with the sponsors. Also, 50% of the directors of AMC must be independent. All mutual funds are required to be registered with SEBI before they launch any scheme. The entities involved in mutual fund are also explained following diagram:



*Fig.: Showing Organization of Mutual Fund*

*Source: Association of Mutual Fund in India*

#### **MAJOR MUTUAL FUND HOUSES IN INDIA ARE**

1. HDFC Mutual Fund
2. Prudential ICICI
3. Franklin Templeton
4. DSP Merrill Lynch
5. Tata Mutual Fund
6. UTI Mutual Fund

#### **OBJECTIVES OF THE STUDY**

This study is aimed at appraising the performance of mutual funds launched by corporate and banks in India. More specifically, the study has been designed to achieve the following objectives:

1. To evaluate the performance of different mutual fund schemes in term of their returns and risks by applying Sharpe, Treynor's and Jensen indices.
2. To carry out the funds sensitivity to the market movements by calculating Beta.
3. To carry out a comparative analysis of the performance of mutual fund schemes and that of market portfolio, i.e. NSE NIFTY, so as to bring out whether mutual fund schemes are outperforming or underperforming the benchmark (NSE NIFTY).

## SCOPE OF THE STUDY

The scope of study is kept limited to the time period of one year. Data regarding NAV's for the majority of equity funds under open-ended schemes are covered under this study. It is important to point out that data on NAV's has been taken on daily basis.

## SAMPLE SIZE

A sample size is 24 of equity schemes have been selected randomly out of various schemes. These schemes are as follows:

1. SBI Mutual Fund: 4 Funds
2. HDFC Mutual Fund: 4 Funds
3. Canbank Mutual Fund: 4 Funds
4. Birla Sunlife Mutual Fund: 4 Funds
5. Tata Mutual Fund: 4 Funds
6. Franklin Templeton Mutual Fund: 4 Funds

## SOURCES OF DATA

This study is entirely based upon secondary sources. NAV's and returns have been taken for the last one year and index has been noted from the website of NSE for different dates. Data has also been collected from Books, Newspapers, Magazines and Internet.

## ASSUMPTIONS UNDER THE STUDY

- ✚ Rate of risk less return (Interest rate on Fixed Deposit offered by SBI) is taken @ 6.5% p.a.
- ✚ Secondary data sources are assumed to be true.

## ANALYSIS OF DATA

To know the findings of the research, an extensive use of statistical techniques has been made. Following tools i.e.. Return of a Portfolio ( $R_p$ ), Return of Market ( $R_m$ ), Beta, Sharpe's Ratio, Treynor's Ratio and Jensen Measure have been used for the analysis of data.

## PERFORMANCE APPRAISAL OF MUTUAL FUNDS

The performance appraisal of different mutual fund scheme is classified into:

1. Return Analysis
2. Risk Analysis
3. Risk- Adjusted performance appraisal

## MAJOR FINDINGS AND CONCLUSIONS

The performance of open ended equity schemes has been satisfactory in terms of NAV based returns. All the selected open- ended equity schemes have succeeded in producing positive returns.

1. Regarding returns of open-ended schemes the study shows that Magnum Multiplier performed better among all schemes launched by banks. While Tata Select Equity Fund is best among schemes launched by corporates. Magnum Multiplier performs better in case of overall comparison.
2. Considering all the open-ended equity schemes launched by banks, the risk level is found at the lowest level in case of Canindex. While Tata Life Science and Technology shows the lowest risk among all

schemes launched by corporates. In case of overall comparison, Tata Life Science and Technology shows the lowest risk.

3. In case of open-ended equity schemes launched by banks, the average Beta value Canexpo is lowest. While on the other hand, Birla Sunlife Buy India Fund shows the lowest average Beta among open-ended schemes launched by corporates. In case of overall comparison, Canexpo has produced the lowest average Beta.

4. According to Sharpe's measure of risk-adjusted performance, the open-ended equity schemes a very discouraging performance. For instance out of 24 schemes 15 schemes show that they are underperforming. The number of outperforming schemes is limited to 9.

5. The percentage of outperforming schemes as per Treynor's measure is lower than that found on the application of Sharpe index. The number of outperforming schemes is limited to 7.

6. Jensen's Alpha has been found positive values in case of majority of the schemes. Except Can-equity Tax saver, HDFC Capital Builder, Magnum Emerging Business Fund, Franklin India Prima Plus, and Birla Sunlife Midcap Fund, there is no such scheme as has underperformed.

A summary of top schemes on the basis of different variables are shown with help of following tables.

**Table 1**

**TOP THREE SCHEMES ON THE BASIS OF THEIR AVERAGE DAILY RETURN**

Sr. No.	Schemes	Sponsor	Average Return	Rank
1	Magnum Multiplier Plus	SBI	0.002725	1
2	Tata Select Equity Fund.	TATA	0.002604	2
3	Tata Equity Opportunities	TATA	0.002578	3

**Table 2**

**TOP THREE SCHEMES ON THE BASIS OF THEIR TOTAL RISK**

Sr. No.	Schemes	Sponsor	Total Risk	Rank
1	Tata Life Science and Technology	TATA	0.009007	1
2	Tata Equity Opportunities Fund.	TATA	0.010267	3
3	Franklin India Growth Fund	TEMPELTON	0.009785	2

**Table 3**

**TOP THREE SCHEMES ON THE BASIS OF THEIR BETA**

Sr. No.	Schemes	Sponsor	Beta	Rank
1	Canexpo	CANARA	0.352256	1
2	Birla Sunlife Buy India Fund	BIRLA	0.489496	2
3	Franklin Pharma Fund	TEMPELTON	0.548723	3

Table 4

**TOP THREE SCHEMES ON THE BASIS OF SHARPE'S INDEX**

Sr. No.	Schemes	Sponsor	SI - BMS
1	Magnum Multiplier Plus	SBI	0.058853995
2	Tata Equity Opportunities Fund.	TATA	0.050565327
3	Tata Life Science and Technology	TATA	0.048474607

Table 5

**TOP THREE SCHEMES ON THE BASIS OF TREYNOR'S INDEX**

Sr. No.	Schemes	Sponsor	TI - BMS
1	Magnum Multiplier Plus	SBI	0.000486073
2	Birla Sunlife Midcap Fund	BIRLA	0.000477504
3	Canexpo	CANARA	0.000282167

Table 6

**TOP THREE SCHEMES ON THE BASIS OS JENSEN'S MEASURE**

Sr. No.	Schemes	Sponsor	ALPHA
1	Tata Equity Opportunities Fund.	TATA	0.000820699
2	Tata Equity Opportunities Fund.	TATA	0.000820699
3	Tata Life Science and Technology	TATA	0.000746298

In the last, I want to say that the importance of research and analysis in the mutual fund industry can hardly be over emphasized; many Indian mutual funds are still devoid of such culture. It is unquestionable that continuous research on any subject makes it attain maturity and takes it from developing stage to developed stage. In developed countries of the world none can think of operating in the capital market without the intelligent support of the standard research.

The performance of mutual fund depends largely on the caliber of the fund managers in structuring investment portfolio, portfolio diversification skills and the extent to which market risk is reduced.

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