



“PERFORMANCE EVALUTION OF SELECTED MUTUAL FUND (EQUITY) SCHEME”

Vidhi Vagadiya¹Yug Katrodiya²Samir Thakkar³¹MBA Student²MBA Student³ Assistant ProfessorParul Institute of management & Research
Parul University Waghodia, Vadodara, India

ABSTRACT

In this paper the performance evaluation of Indian mutual funds is carried out through relative risk-return analysis, Treynor's ratio, Sharp's ratio, Sharp's measure, Jensen's alpha measure. The data used is daily closing NAVs. The source of data is website of money control. The study period is 1st January 2018 to 31st December, 2020. The results of performance measures suggest that most of the mutual funds have given positive return during.

Key Words: - Mutual fund scheme, Sharpe's ratio, Treynor's ratio, Jensen alpha.

1. INTRODUCTION

Day by day as business is getting more competitive and so the management is achieving its importance in every field to increase the efficiency and to cut down the cost of production. The present day giant organization is a specialized or expert in all spheres of management. The importance of specialist from each has emerged, these specialist are often called as professionals.

Mutual funds are a topic of great interest not only to researchers around the world, but also to investors. Mutual Funding as a medium-to-long-term investment option is preferred by investors as a suitable investment option. However, with the choice of mutual fund is to enter many markets. Study focus on this problem of mutual fund selection by investors. . Though the investment investor's preference among fund types (balanced, growth, dividend etc.) the choice of fund based on a sponsor's reputation remains to be probed. We focus on analyzing the performance of mutual funds by using three models i.e. Sharpe, Treynor and Jensen.

Mutual fund in globally proven investment:

Worldwide the mutual fund has a long successful history the popularity of the mutual fund has increase many fold in develop financial market like U.s Mutual fund have almost over taken bank deposit and total assets of insurance fund.

Internationally online investing continues his meteoric rise many have debated about the success of E-commerce and is and its break through but it is true that this aspect of technology could and will change the Way financial sector function however advance country like U.s Mutual fund by sale transaction have already begun on net while in India the net is use as a source of information such changes could facilities easy access lower intermediation cost are better service for all.

Since the creation of first Mutual fund in 1929 the Mutual fund industry has enjoy the fastest growth rate financial investment industry in 1949 all Mutual fund company combined control 2\$ billion fund assets soared to \$6.5 trillion at the outset of 2003 and ,more than \$12 trillion in 2007 making the funds America's largest financial investment vehicle.

Mutual fund categorized by the investment objective equity fund consist of common stocks and are organized to achieved capital growth bond funds are composed of corporate U.s government or municipal bonds and emphasize regular income.

An income fund has the same objective as bond funds but includes government national mortgage association securities government securities and common and preferred stocks.

MUTUAL FUNDS TODAY

At the end of 2019, mutual fund assets worldwide were \$40.4 Trillion according to the Investment Company Institute. The countries with the largest mutual fund industries are:

Country	\$ Trillion
United States	19.5
Luxembourg	4.1
Ireland	2.5
Germany	1.9
France	1.9
Australia	1.6
United Kingdom	1.5
Japan	1.5
China	2.3

INDUSTRY PROFILE

The average assets under management (AAUM) of the Indian mutual fund industry for December 2019 has crossed the UM 27 lakh crore mark and reached Rs. 27,25,932 crore.

As on December 31, 2019, the assets under management (AUM) of the Indian mutual fund industry were Rs 26, 54,075 crore.

The AUM of the Indian MF industry has grown from 6. 665 trillion as on December 31, 2009 to almost 4 times in the 10 years to December 31, 2019.The MF Industry's AUM has grown from Rs. 10.51 trillion as on

31st December, 2014 to Rs.26.54 trillion as on 31st December, 2019, about 2 ½ fold increase in a span of 5 years.

2014 AUM of the industry crossed the Tr 10 trillion target for the first time in May 2014 and in a short span of almost three years, the AUM doubled in size and crossed 20 trillion (first in August 2017) Times Rs. 20 lakh crore). Industry AUM stood at Rs. 26.54 trillion (Rs. 26.54 lakh crore) as on December 31, 2019.

As on December 31, 2019, the total number of accounts (or folios according to the mutual fund's lens) stood at 71.7171 crore (.1 87.1 million), while the number of folios under equity, hybrid and solution oriented schemes, with maximum investment being in the retail segment. 7.7575 Crore (77.5 million). This is the 67th consecutive month that the number is increasing Folios.

ASSOCIATION OF MUTUAL FUNDS IN INDIA (AMFI):

India With the growth of Mutual Fund Players in India, the need for Mutual Fund Associations in India to operate as a non-profit organization arose. The Association Mutual Funds in India (AMFI) was incorporated on 22 August 1995.

AMFI is the apex body of Asset Management Company (AMC) registered with SEBI. To date, all AMCs that have launched mutual fund schemes are members.

It operates under the supervision and guidance of its Board of Directors.

The Mutual Funds Association of India has brought the Indian mutual fund industry to a professional and healthy market by maintaining ethical lines and standards. It follows the principle of both protecting and promoting the interests of mutual funds as well as their unit holders.

PROBLEM STATEMENT

There are many ways to invest. So that investors do not know which way gives the best return. Mutual fund schemes are the most diverse according to the financial rule of "don't put all the eggs in one basket". So that the risk should be minimized. If a person does not know how to achieve maximum return with minimum risk or vice versa, he should invest in a mutual fund. There are many funds and schemes available in the mutual fund market. Investors know how much risk they can take. The problem is that the chosen plan offers the best returns compared to the market and other plans. Sharp's model, Trainer's model and Jensen's model for that particular model. These models indicate which plans offer the best returns.

2. OBJECTIVES

- To know about the types of mutual funds in details.
- To study the selected mutual fund schemes with the point of attractiveness to investors.
- To know which schemes gives highest return within 3 years.

3. LITERATURE REVIEW

Sharpe, William F (1966) Developed a combined measure of compensation and risk. He evaluated 34 open-end mutual funds for the period 1944-63. The reward ratio for each plan was significantly lower than the DJIA (Dow Jones Industrial Average) and ranged from 0.43 to 0.78. The cost ratio is related to the effect of the fund, as the correlation coefficient was 0.0505. The results show that good performance is associated not with size but with a low cost ratio. Sample plans showed consistency in risk measurements.

Treynor and Mazuy (1966) assessed the performance of 57 fund managers in terms of market time capabilities and found that fund managers have not successfully offset the market. The results suggest that investors were completely dependent on market fluctuations. The improvement in return rates was due to the ability of fund managers to identify under-valued industries and companies. The study adopted Trainer's (1965) methodology to review the performance of mutual funds.

Jensen (1968) Developed joint portfolio evaluation techniques related to risk-adjusted returns. He assessed the capacity of 115 fund managers in the selection of securities during the period 1945-66. An analysis of net returns indicates that 39 funds have higher-than-average returns, while 76 funds have unusually weak returns. Using total returns, 48 funds showed above average results and 67 funds above average results. Jensen concluded that there was little evidence that fund 22 could perform significantly better than expected because fund managers could not predict the price movement of securities.

Dr. Rao Narayan (2017) Evaluated the performance of Indian mutual fund schemes in the bear market using the relevant performance index, risk-return analysis, trainer ratio, sharp ratio, Jensen's measure, Fama's measure. The study found that medium term debt funds were the best performing funds during the bear period of September 2013-April 2017 and 58 out of 269 open and mutual funds, providing better returns than the overall market returns.

4. RESEARCH METHODOLOGY

RESEARCH DESIGN

During our research study, we have used Descriptive research design.

SOURCES OF DATA

Here in this research paper we have used Secondary source of data as the return for different mutual funds.

DATA COLLECTION METHOD

Here in this research paper we have used data which were published on the websites of Money control, and mutual fund India.

POPULATION

Here in this research paper we have taken 5 mutual fund schemes have been selected. This population is based on the type of mutual fund i.e. "Equity mutual funds"

There are various schemes available in the mutual fund like debt, equity, balance etc. But out of these schemes we have selected Equity scheme as a population.

5. DATA ANALYSIS & INTERPRENTATION

TREYNOR'S PERFORMANCE INDEX:-

According to Jack Treynor (1965) systematic risk or beta is the appropriate measure of risk as suggested by CAPM (Capital Asset Pricing Model). It measure portfolio performance relates to the excess return on a portfolio to the portfolio beta. It focus on systematic risk or non-diversified risk i.e. Beta.

Formula:

$$\text{Treynor} = \frac{R_p - R_f}{\beta_p}$$

Where:

Ti = Treynor's Performance Index

Rp = Portfolio's actual return during a specified time period

RF = Risk-free rate of return during the same period

Bp = Beta of the portfolio

SHARPE'S PERFORMANCE INDEX:-

Sharpe (1966) developed a composite index which is very similar to the Treynor measure, the only difference being the use of standard deviation, instead of beta, to measure the portfolio risk. Sharpe's measure reflect the excess return earn on a portfolio per unit of its total risk. It uses the total risk of the portfolio rather than just the systematic risk.

Formula:

$$\text{Sharpe} = \frac{R_p - R_f}{\sigma_p}$$

Where:

Si = Sharpe performance index

σ_p = Portfolio standard deviation

RF = Risk-free rate of return during the same period

Rp = Portfolio's actual return during a specified time period

Sharpe index, evaluates funds' performance based on both rate of return and diversification. For a completely diversified portfolio Treynor and Sharpe indices would give identical rankings.

JENSEN'S ALPHA (RATIO):-

It is based on CAPM model. It reflects the difference between the return actually earn on a portfolio the portfolio was supposed to earn, given its beta as per CAPM. It focus on difference between actual return earn and return as per CAPM.

Formula:

$$Jensen = \alpha_p = R_p - [R_f + \beta_p(R_m - R_f)]$$

The four aspects that you should take into account while analyzing risk in mutual fund investment are volatility of the fund as indicated by the Standard Deviation. Risk adjusted returns as calculated by the Sharpe Ratio, Beta and Alpha.

SHARPE'S RATIO

Sr.No.	Selected Mutual Fund Scheme	Sharpe's Ratio
1	BNP Paribhas Large Cap Fund	0.4
2	L & T India Large Cap Fund	0.3
3	Tata Large Cap Fund	0.19
4	Edelweiss Large Cap Fund	0.41
5	JM Large Cap Fund	0.46

Interpretation:

Sharp's ratio reflects excess return on portfolio per unit of total risk. It uses total risk rather than just a systematic risk. So it calculate whole amount instead of sample size. By illustrating above tabular format of long term mutual fund we can clearly define that JM large cap fund has the best and highest sharp ratio 0.46 with better risk adjusted return in compare of remaining other mutual funds. Edelweiss large cap fund & BNP Paribas large cap fund are having 2nd and 3rd highest risk adjusted return respectively.

TREYNOR'S RATIO

Sr.No.	Selected Mutual Fund Scheme	Treynor's Ratio
1	BNP Paribhas Large Cap Fund	0.09
2	L & T India Large Cap Fund	0.06
3	Tata Large Cap Fund	0.04
4	Edelweiss Large Cap Fund	0.09
5	JM Large Cap Fund	0.1

Interpretation:

According to treynor systematic risk is appropriate measure of risk as per CAPM. It focuses on systematic risk or non-diversified risk. It is having the same rating as sharp's ratio with different risk adjusted return method of evaluation and interpretation. JM large cap fund, Edelweiss large cap fund are came at 1st and 2nd respectively with their systematic return.

JENSEN'S ALPHA

Sr.No.	Selected Mutual Fund Scheme	Jensen's Alpha
1	BNP Paribhas Large Cap Fund	0.32
2	L & T India Large Cap Fund	-0.4
3	Tata Large Cap Fund	-5.69
4	Edelweiss Large Cap Fund	0.54
5	JM Large Cap Fund	0.11

Interpretation:

Jensen's alpha return reflects the difference between return actually earned and the return was supposed to be earned. It has high volatility in the ratio with above mutual funds yet Edelweiss Large Cap Fund & BNP Paribas large cap fund has eventually secured their measure of movement same as sharpe & Treynor.

6. FINDING & SUGGESTIONS

Based on Technical Analysis and ranking three parameters, for investors, we recommend choice of investment as follows:

- BNP Paribas Large Cap Fund – Growth
- L& T India Large Cap Fund – Growth
- TATA Large Cap Fund – Growth
- Edelweiss Large Cap Fund – Growth
- Jam Large Cap Fund – Growth

Returns of all 5 schemes are mostly higher than their market return.

Beta and Standard deviation is affected while calculating performance index.

In almost cases rank given by Treynor, Sharpe and Jensen was same in particular schemes. Mostly all the mutual fund schemes are able to beat the market. That means the schemes are well diversified.

7. CONCLUSION

RANKING:

Name	Sharpe's Ratio	Treynor's Ratio	Jensen's Alpha
BNP Paribas Large Cap Fund - Growth	3	3	2
L & T India Large Cap Fund- Growth	4	4	4
Tata Large Cap Fund- Growth	5	5	5
Edelweiss Large Cap Fund- Growth	2	2	1
JM Large Cap Fund- Growth	1	1	3

In today's world investors are showing more trust in mutual fund than any other financial product. There is no need of a financial consultant if you have good knowledge of mutual funds and their types to invest.

Mutual fund is subject to market risk despite of that have low risk than stock markets this is proved in performance analysis section of this report. Performance analysis measurement ratios i.e. Treynor's Sharpe's and Jensen's are used by fund to take decision of investment and to Jensen's are used by funds managers to take decision of investment and to portfolio.

In this research project, we can analyze that JM large cap fund is best mutual fund scheme compare to other scheme. It shows that investment for longer period would get absolute higher return than the risk free rate of return.

REFERENCES

- Dr.R.karrupasamy,Mrs.v.vanaja. (Coimbatore). Performance evaluation of selected category of public sector mutual fund schemes in India (Vol. 1). 2014: International research journal of business and management.
- Grinblatt, Mark and Sheridan Titman, 1989. "Mutual Fund Performance: An Analysis of Quarterly Portfolio Holdings." Journal of Business, Vol. 62, No. 3, pp. 393-416
- Dr S Narayan Rao, M Ravindran, Manager (2003), Performance Evaluation of Indian Mutual Funds, SSRNsearch library.
- Rajeshwari T.R and Rama Moorthy V.E., (2002) Performance Evaluation Of selected Mutual Funds and Investor Behavior, PhD Thesis, Sri Sathya Sai Institute of Higher Learning, Prasanthinilayam
- Grinblatt M. Titman S., 1992, "Performance Persistence in Mutual Funds," Journal of Finance, 47, 1977–1984.
- www.moneycontrol.com
- www.amfiindia.com
- <http://www.amfiIndia.com/research-information/mf-history>
- www.valuereserch.com
- www.nseindia.com
- www.bseindia.com
- <https://www.moneycontrol.com/mutual-funds/performance-tracker/returns/large-cap-fund.html>
- www.mutualfundindia.com
- <https://www.moneycontrol.com/mutual-funds/nav/bnp-paribas-large-cap-fund/MAB001>
- <https://www.moneycontrol.com/mutual-funds/nav/l-t-india-large-cap-fund/MFF027>
- <https://www.moneycontrol.com/mutual-funds/nav/tata-large-cap-fund-direct-plan/MTA788>
- <https://www.moneycontrol.com/mutual-funds/nav/edelweiss-large-cap-fund-a/MEW041>
- <https://www.moneycontrol.com/mutual-funds/nav/jm-large-cap-fund/MJM055>