"Comparative analysis of performance of selected mutual fund schemes"

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ABSTRACT:

Investment in mutual fund has been growing nowadays due to its advantages of professional management, safety and attractive returns. The assets under management for Indian Mutual fund industry have grown from ₹ 5.05 trillion as on 31st March 2008 to ₹22.60 trillion as on 31st May, 2018. Mutual funds are ideal investment options if one is looking at convenience and time saving opportunity. However, there are ample of schemes available in mutual fund and it becomes difficult for investor to compare and select the best alternative. Present study has identified this problem and focused on comparing selected mutual fund schemes using Sharpe, Jension and Trenor model.

Key words: Mutual fund, Comparative analysis, Sharpe, Jension, Trynor

1. INTRODUCTION:

Mutual fund is the pool of the money, based on the trust who invests the savings of a number of investors who shares a common financial goal, like the capital appreciation and dividend earning. Money thus collected is then invested in capital market instruments such as shares, debenture, and foreign market. Investors invest money and get the units as per the unit value which we called as NAV (net assets value). Mutual fund is considered as the most suitable investment for the common man as it offers an opportunity to invest in diversified portfolio management, good research team, professionally managed Indian stock as well as the foreign market, the main aim of the fund manager is to taking the scrip that have under value and future will rising, then fund manager sell out the stock. Present research has selected 10 mutual fund schemes randomly and compared the performance of scheme selected using Sharpe, Treynor and Jension model.

1.1. Sharpe Ratio

The Sharpe ratio is the average return earned in excess of the risk-free rate per unit of volatility or total risk. Subtracting the risk-free rate from the mean return, the performance associated with risk-taking activities can be isolated. One intuition of this calculation is that a portfolio engaging in "zero risk" investment, such as the purchase of U.S. Treasury bills (for which the expected return is the risk-free rate), has a Sharpe ratio of exactly zero. Generally, the greater the value of the Sharpe ratio, the more attractive the risk-adjusted return.

1.2. Treynor Ratio

The Treynor ratio is a measurement of the returns earned in excess of that which could have been earned on an investment that has no diversifiable risk (e.g., Treasury bills or a completely diversified portfolio), per each unit of market risk assumed. The Treynor ratio relates excess return over the risk-free rate to the additional risk taken; however, systematic risk is used instead of total risk. The higher the Treynor ratio, the better the performance of the portfolio under analysis.

1.3. Jensen's Alpha Ratio

Jensen's Alpha, or just "Alpha", is used to measure the risk-adjusted performance of a security or portfolio in relation to the expected market return (which is based on the capital asset pricing model (CAPM).The higher the alpha, the more a portfolio has earned above the level predicted. Jensen's measure is a statistical measurement of the portion of a security's or portfolio's return that is not explained by the market or the security's relationship to the market but rather by the skill of the investor or portfolio manager. It is also called alpha.

2. LITERATURE REVIEW:

Prajapati, K.P., Patel, M.K. (2012) has studied on "Comparative study on performance evaluation of mutual fund schemes of Indian companies." The aim of the study is to evaluate and compare the performance of equity diversified mutual fund schemes of selected companies, to compare the performance of equity diversified mutual fund schemes of selected companies vis-à-vis the market. The researchers have found that most of the mutual fund has given positive return during 2007 to 2011. HDFC and Reliance mutual fund have performed well as compared to the Sensex return.

Dr.S.Vasantha, Uma Maheswari, K.Subashini (September 2013) have studied on "Evaluating the Performance of some selected open ended equity diversified Mutual fund in Indian mutual fund Industry." Researcher aim to evaluate the performance of selected open ended equity diversified Mutual fund in India, to analyze the risk adjusted performance the selective open ended equity diversified mutual fund through various techniques002E. The investor who needs regular income can invest in HDFC Top 200 and CanaraRobeco equity Diversified fund. The shape index concluded that majority of the funds showed negative returns and no fund exhibited extraordinary performance.

Narayanasam Y, R. Rathnamani, V. (2013) have studied on "Performance Evaluation of Equity Mutual Funds (On Selected Equity Large Cap Funds)." The aim of the study to study the performance of a growth scheme of a selected mutual funds, to examine the return from the selected mutual fund, to know whether the mutual funds are able to provide reward to variability and volatility, to identified security market return with fund return. The study found that all the funds have performed well in the high volatile market.

Revathy, S. Santhi, V. (2013) studied on "A Study on Performance Evaluation of Selected Banks Equity Mutual Funds." This study aimed to find out the performance of equity mutual funds in selected banks, to analyze the risk and return of selected banks in equity mutual funds, to compare the performance among the selected banks in equity mutual funds and to identify the suitable equity mutual fund among selected banks equity mutual funds. This study has revealed that HDFC fund has outperformed and the benchmark from sundram growth funds.

3. RESEARCH METHODOLOGY:

Objectives of the Study:

- To evaluate the performance of selected mutual fund schemes.
- To analyse the trends in returns of selected mutual funds.
- To suggest the investors regarding best mutual fund for investment.

Research Design: Descriptive study has been used for the present study.

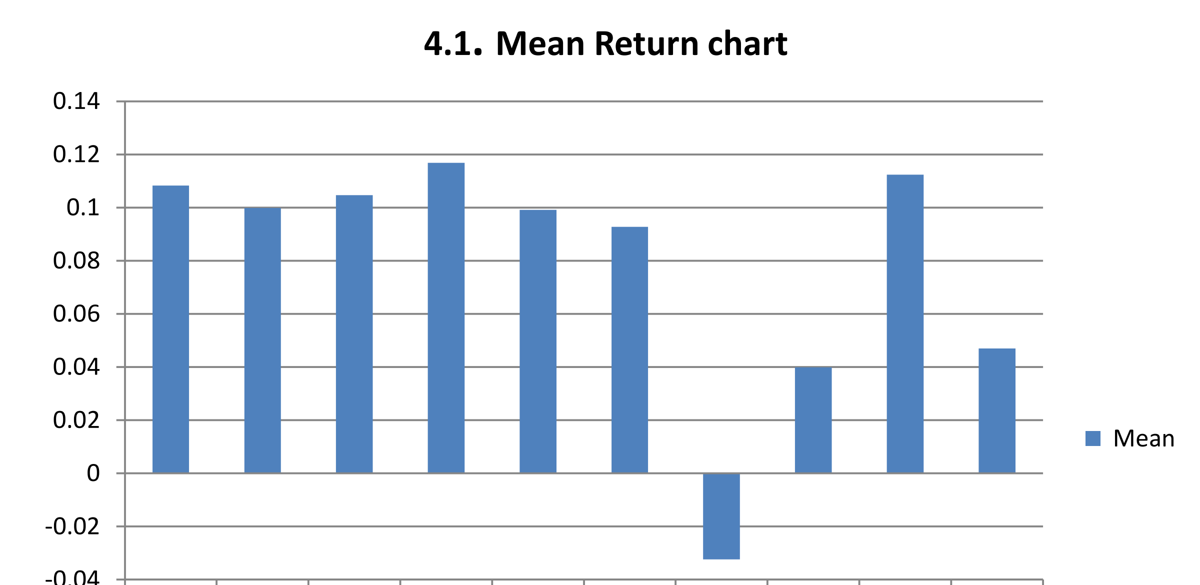
Sources of data: The data has been collected using secondary sources.

Analysis Techniques: Various statistical tests such as Sharpe measure, Jension measure and trainer have been used for comparison of schemes selected.

Schemes Selected for the Study:

Present study has 10 schemes for comparison which includes SBI Equity Savings Fund - Regular Plan – Growth, Axis Equity Fund – Growth, DSP Blackrock Equity Fund - Regular Plan – Growth, HDFC Equity Fund - Growth Option, BNP PARIBAS Equity Fund-Growth Option, ICICI Prudential Focused Blue-chip Equity Fund – Growth, Franklin Asian Equity Fund - Growth Plan, L&T Dynamic Equity Fund-Regular Plan-Growth, Kotak Emerging Equity Scheme – Growth, Mirae Asset India Equity Fund - Growth Plan.

4. ANALYSIS:



	AXIS_EQUITY_FUND	BNP_PARIBAS__EQUITY_FUND	DSP_BLACKROCK_EQUITY_FUN	FRANKLIN_ASIAN_EQUITY_FU	HDFC_EQUITY_FUND	ICICI_PRUDENTIAL_FOCUSED	KOTAK_EMERGING_EQUITY_SC	L_T_DYNAMIC_EQUITY_FUND	MIRAE_ASSET_INDIA_EQUITY	SBI_EQUITY_SAVINGS_FUND
Mean	0.10826	0.09989	0.10468	0.11686	0.0991	0.09273	-0.0324	0.0399	0.11238	0.04705

Above chart represents the mean return of selected schemes. It is clear that Franklin Asian Equity fund is having highest mean return. Mirae asset India Equity holds second highest mean return.

4.2. SHARPE MODEL=(Ri-Rf)/Standard deviation

Rf=7.72 , 10 year government bond rate in 2018.

	Name of schemes	Annual return (Ri)	Standard deviation	Sharpe measure	Rank
1	SBI Equity Savings Fund - Regular Plan - Growth	14.30	0.25	26.23	8

2	Axis Equity Fund	35.78	0.60	46.59	1
3	DSP BlackRock Equity Fund - Regular Plan - Growth	33.35	0.74	34.54	6
4	HDFC Equity Fund - Growth Option	31.40	0.86	27.45	7
5	BNP PARIBAS Equity Fund-Growth Option	32.52	0.66	37.60	4
6	ICICI Prudential Focused Bluechip Equity Fund - Growth	29.69	0.63	34.93	5
7	Franklin Asian Equity Fund - Growth Plan	38.76	0.70	44.65	2
8	L&T Dynamic Equity Fund-Regular Plan-Growth	11.94	0.20	20.67	9
9	Kotak Emerging Equity Scheme - Growth	-23.20	2.79	-11.07	10
10	Mirae Asset India Equity Fund - Growth Plan	37.25	0.69	42.80	3

Above table stated that Axis Equity gives higher return compare to other selected scheme as Sharpe value is 46.59. Next scheme that gives higher return is Franklin Asian Equity fund as Sharpe score 44.65. Kotak Emerging Equity Scheme gives lowest return among all selected schemes with Sharp ratio of -11.07.

4.3. TREYNOR MODEL

	Treynor's measure (T=Ri-Rf/Bi)	Ri	Rf	Bi	Treynors ratio	Rank
1	SBI Equity Savings Fund - Regular Plan – Growth	14.30	7.72	0.27	24.59	8
2	Axis Equity Fund	35.78	7.72	0.65	43.26	2
3	DSP BlackRock Equity Fund - Regular Plan – Growth	33.35	7.72	0.77	33.23	5
4	HDFC Equity Fund - Growth Option	31.40	7.72	0.82	28.85	7
5	BNP PARIBAS Equity Fund-Growth Option	32.52	7.72	0.67	36.92	4
6	ICICI Prudential Focused Bluechip Equity Fund – Growth	29.69	7.72	0.66	33.18	6
7	Franklin Asian Equity Fund - Growth Plan	38.76	7.72	0.42	74.41	1

8	L&T Dynamic Equity Fund-Regular Plan-Growth	11.94	7.72	0.22	19.49	9
9	Kotak Emerging Equity Scheme - Growth	-23.20	7.72	0.39	-78.95	10
10	Mirae Asset India Equity Fund - Growth Plan	37.25	7.72	0.74	39.93	3

According to Treynor ratio Franklin Asian Equity Fund gives the highest return than other selected schemes with Treynor ratio of 74.41. After that second highest scheme is Axis Equity Fund with Treynor value of 43.26. Kotak Emerging Equity Scheme gives lowest return compare to other selected scheme as its Treynor ratio is -78.95.

4.4. JENSION MODEL:

Alpha= Rp-E(Rp)

E(Rp)=Rf+Bi(Rm-Rf)

		Rp	Bi	Rm	E(Rp)	Alpha	Rank
1	SBI Equity Savings Fund - Regular Plan – Growth	14.30	0.27	0.09	5.68	8.62	8
2	Axis Equity Fund	35.78	0.65	0.09	2.77	33.01	3
3	DSP BlackRock Equity Fund Regular Plan - Growth	33.35	0.77	0.09	1.84	31.51	4
4	HDFC Equity Fund - Growth Option	31.40	0.82	0.09	1.46	29.95	5
5	BNP PARIBAS Equity Fund-Growth Option	32.52	0.67	0.09	2.59	29.93	6
6	ICICI Prudential Focused Bluechip Equity Fund – Growth	29.69	0.66	0.09	2.67	27.02	7
7	Franklin Asian Equity Fund - Growth Plan	38.76	0.42	0.09	4.54	34.22	2
8	L&T Dynamic Equity Fund-Regular Plan-Growth	11.94	0.22	0.09	6.07	5.87	9
9	Kotak Emerging Equity Scheme - Growth	-23.20	0.39	0.09	4.73	-27.93	10
10	Mirae Asset India Equity Fund - Growth Plan	37.25	0.74	0.09	2.08	35.17	1

It can interpret that all schemes give return according to risk lies with that particular schemes as value of alpha is positive except Kotak emerging Equity scheme as its value of alpha is negative. According to Jension ratio Mirae Asset India Equity Fund gives higher return than other selected schemes as its alpha value is highest that is 35.17. Kotak Emerging Equity scheme gives lowest return than other selected scheme as its alpha value is in negative that is -27.93 therefore it can be interpret that this scheme does not give good return compare to risk taken by investors.

5. IMPLICATIONS:

Mutual fund is considered as the most suitable investment for the common man as it offers an opportunity to invest in diversified portfolio management, good research team, professionally management. Present study has identified this problem and focused on comparing selected mutual fund schemes using Sharpe, Jension and Trenor model. Franklin Asian Equity fund is having highest mean return. Mirae asset India Equity holds second highest mean return. As per sharpe model and Trynor model, Axis Equity Fund and Franklin Asian Equity Fund - Growth Plan are top two schemes for investment. As per Jension model , Mirae Asset India Equity Fund - Growth Plan and Franklin Asian Equity Fund - Growth Plan are top two schemes for investment.

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