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RISK AND RETURNS OF SELECTED EQUITY LINKED MUTUAL FUND SCHEMES: A COMPARATIVE STUDY

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ABSTRACT

Mutual fund is a speculation medium which is comprised of a pool of funds gathered from numerous retail financial specialists to put resources into securities exchange instruments, for example, stocks, securities, currency market instruments and different resources. Mutual funds allow tax benefits, diversification and other various options through making an investment in equity, debt or hybrid funds. Mutual funds are managed by professional, hence retail and inexperienced investors are advised to invest in the stock market through mutual funds. The main goal of undertaking of this study was to know about mutual fund schemes and it's routine. This makes a necessity for the investors to analyse the behavioural aspects of these funds. It also helps in understanding different schemes of mutual funds from different companies. The study has taken 5 years information of a plan of 10 organizations to ascertain different estimates like mean, standard deviation, beta, Sharpe proportion, Treynor proportion and Janson proportion. Monthly NAVs of selected Mutual Fund Schemes of 10 AMC was collected and their company-wise monthly returns are compared with returns of Nifty 50. The results of the research shows that while investing, investor must consider both return and risk involved in the scheme. Therefore, while investing, investors should carefully evaluate and analyse the market and other factors. Canara Robeco and ICICI Prudential, fund is performing better than other eight mutual funds. HDFC is also performing better that holds first rank in one of the tools.

Keywords: *Mutual Fund, Return, Comparison, Sharpe Ratio, Treynor Ratio, Jenson Ratio, Market Index*.

Introduction

Investment is the sacrifice of present value for uncertain future return. In other words an investment is defined as it is an asset that is acquired with the aim to generate income or future returns.[i] Generate income is meant that to increase in present value with certain time period. Investment is a trade of between risk associated with asset and return to be expected to receive in the future.[ii]

Mutual fund is a speculation medium which is comprised of a pool of funds gathered from numerous retail financial specialists to put resources into securities exchange instruments, for example, stocks, securities, currency market instruments and different resources. Mutual funds allow tax benefits, diversification and other various options through making an investment in equity, debt or hybrid funds.[iii] Mutual funds are managed by professional, hence retail and inexperienced investors are advised to invest in the stock market through mutual funds.[iv]

A mutual fund is a intermediary that facilitate buying and selling of securities on behalf of its unit holders. Mutual fund is a pool of money of various investors and investment on behalf of unit holders.[v]According to AMFI (Association of Mutual Funds in India), “A mutual fund is a trust that pools the savings of a number of investors who share common financial goal. Anybody with an investible surplus of as little as a few thousand rupees can invest in mutual funds. This investor buys units of a particular mutual fund scheme that has a defined investment objective and strategy.”

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Review of Literature

M. Ravichandran, T.Iswarya (2016) concluded that the mean profit for cross breed shared store plans has demonstrated insecurity during the investigation time frame, and filled the need of mixture finances just during the time of 6months, first year and fifth year.

Asad Dossani (2019) shows in his research that how inflation shocks reflects in the risk and return characteristics of different asset classes. For an unanticipated increase in inflation expectations, returns on equities and on the euro (relative to the dollar) increase, while returns on bonds and on gold decrease. Based on option implied volatility and skewness, bonds become more risky, equities and gold become less risky, and the impact on the euro's riskiness is ambiguous. These findings support the following conclusion that in response to inflation shocks, equities are the most attractive asset class, while bonds are the least attractive. The euro and gold are somewhere in between.

S Rajpurohit (2015) reveals in his study that financial specialists hurry to leave value assets in January and moved concentration to obligation fully expecting a low loan cost system in the coming quarters. Shared store speculators pulled out a record Rs.4,713 crore from value plans of advantage the executives organizations (AMCs), the most noteworthy in any January month. While values saw the most noteworthy month to month recovery ever, AMCs' obligation plans pulled in Rs.43,804.7crore—the most noteworthy inflow in any January. In general, all chose common store organizations have positive return during 2009 to 2014. ICICI shared reserve has performed well. Birla SL Intl. Value A - Direct (G) and DWS Top Euro land Offshore Fund (G) common store have lower level of danger contrast with Franklin and DSP.

Nutan Vijay Pasalkar (2015) conducted a comparative study of Equity investment Vs Mutual fund investment of Indian individual investors. Simple random sampling was used to collect the primary data from Pune city Maharashtra. The research reveals that majority of investors are shifting from low risk avenue to high risk investment avenue. India has witnessed a sharp rise in the graph showing inclination towards the risk avenues.

Archana Goel and Laveena (2015) studied the selected mutual fund for 5 years. 15 schemes had been included in the study. Researcher conducted the NAV. 91 days Treasury-bill rate is considered as RF rate. BSE SENSEX has been taken as seat mark Index. Different tools used for rating include Sharpe, beta, average, NAV and standard deviation. The results showed that of all schemes, HDFC infrastructure fund, short term plan & long term gilt fund are proficient. Birla Sun life Tax saving fund & Index fund are also excellent than HDFC & ICICI.

Objectives of the Study

- To study a comparative performance analysis for the selected equity linked mutual funds for five years.
- To analyze the risk and returns of mutual fund schemes.
- To achieve a comprehensive understanding regarding the mutual fund schemes

Scope of Study

This study evaluates about the analysis of returns that takes place for the five years and their volatility based on investment.

Research Methodology

- **Research Design**: Exploratory research design has been used in the study.
- **Data Collection:** Secondary data has been used for the study.The data is collected for last 5 years from April 2016- March 2021 from various websites like amfindia.com, moneycontrol.com, abslmf.com, nseindia.com etc.
- **Tools:** Following tools and techniques have been used to analyse the risk and return of the schemes:
  - **Standard Deviation**

  Risk profile of the portfolio is calculated using standard deviation.

$$standard\ deviation = \frac{\sqrt{\sum(Ra - Ra*)^2}}{N-1}$$

- **Sharpe Ratio**

William Sharpe is the developer of this measure. This ratio is calculated using standard deviation and risk factor.

$$sharpe\,ratio = \frac{Rp - Rf}{\sigma p}$$

Where

Rp = portfolio return

Rf = risk free rate

ϭp = standard deviation of portfolio

- **Treynor Ratio**

Jack Treynor is the developer of this performance measure. In this measure they uses risk factor and portfolio beta to know the return with given risk.

$$treynor\,ratio - \frac{Rp - Rf}{\beta p}$$

- **Jenson Ratio**

Using this measure, we can calculate the difference between actual return and expected return.

$$jensen\,ratio = Rp - [Rf + \beta(Rm - Rf)]$$

Data Analysis and Discussion

Here I have selected equity saving mutual fund scheme for the analysis from 10 different mutual fund companies.

- **Risk Measurement**

There are two tools used to calculate risk

- **Standard Deviation:** Standard deviation is used to calculate the volatility of total risk involved in the particular scheme.

$$standard\,deviation - \frac{\sqrt{\sum(Ra - Ra*)^2}}{N-1}$$

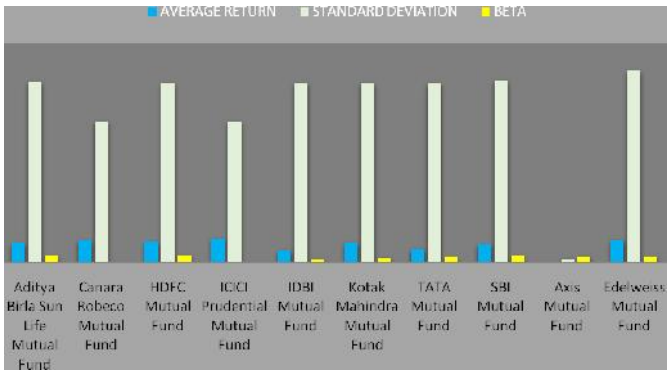
- **Beta:** Beta is used to calculate or to know the volatility of systematic risk involved in the particular scheme.

$$beta = \frac{covariance}{variance}$$

Table 1: Comparative of Equity Saving fund-Regular plan-Growth showing Average Return, Standard Deviation and Beta of Selected Scheme

Name of the Scheme	Average Return	Standard Deviation	Beta
Aditya Birla Sun Life Mutual Fund	0.526342	4.949724	0.177241
Canara Robeco Mutual Fund	0.615111	3.874886	0.008165
HDFC Mutual Fund	0.577052	4.907169	0.197539
ICICI Prudential Mutual Fund	0.665059	3.874886	0.011860
IDBI Mutual Fund	0.343289	4.907169	0.097672
Kotak Mahindra Mutual Fund	0.547629	4.907169	0.130637
TATA Mutual Fund	0.370819	4.901213	0.136543
SBI Mutual Fund	0.509162	4.995868	0.188950
Axis Mutual Fund	0.005453	0.098807	0.165419
Edelweiss Mutual Fund	0.626212	5.244542	0.150523

The above table shows the comparison of 10 different companies mutual fund schemes with the standard of Nifty 50.



Graph 1: Average Return, Standard Deviation and the Beta of Selected Schemes

Interpretation

According to the above chart reveals that all Equity Mutual Fund Schemes of diversified funds have lower value of beta with the standard Nifty 50. This indicates that volatility of all the investment will be less volatile than the market. But a beta few schemes closer to market. Lower the value of Beta lesser the risk associated with it and returns. The safest scheme with least risk with highest return to invest in Canara Robeco Mutual Fund, ICICI Prudential Mutual Fund and IDBI Mutual Fund.

- **Sharpe Ratio**

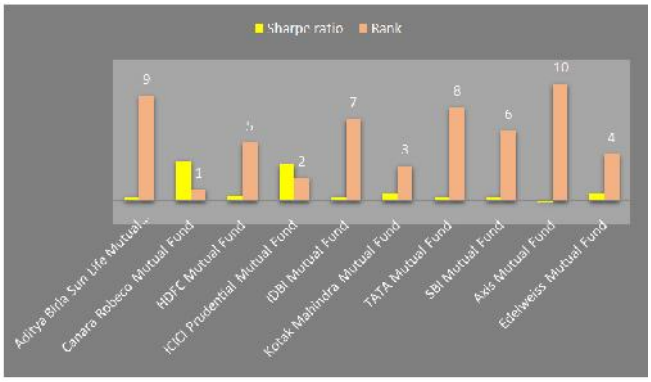
This proportion measure was created by William Sharpe. This measure is utilized to know the normal return alongside hazard premium utilizing standard deviation of return.

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

Table 2: Table of Equity Saving fund - Regular plan - Growth Sharpe ratio and Rank

Name of the Scheme	Sharp ratio	Rank
Aditya Birla Sun Life Mutual Fund	0.321324082	9
Canara Robeco Mutual Fund	3.420817865	1
HDFC Mutual Fund	0.407549719	5
ICICI Prudential Mutual Fund	3.094063613	2
IDBI Mutual Fund	0.365738163	7
Kotak Mahindra Mutual Fund	0.61412546	3
TATA Mutual Fund	0.341448838	8
SBI Mutual Fund	0.376503076	6
Axis Mutual Fund	-0.007981397	10
Edelweiss Mutual Fund	0.593192383	4

The above table shows the Sharpe ratio of 10 different mutual funds and their rank on the basis of Sharpe ratio.



Graph 2: Representing Sharpe Ratio and Rank

Interpretation

Sharpe ratio is used to calculate the average return beyond the total risk. Higher ratio indicates better return and lower ratio indicates lesser return. Higher ratio indicates that the fund giving better return beyond the risk premium. If the fund is giving higher ratio that indicates fund is performing better than the expectations. Among these 10 funds Canara Robeco equity saving mutual fund giving higher ratio than other mutual fund schemes.

- **Treynor Ratio**

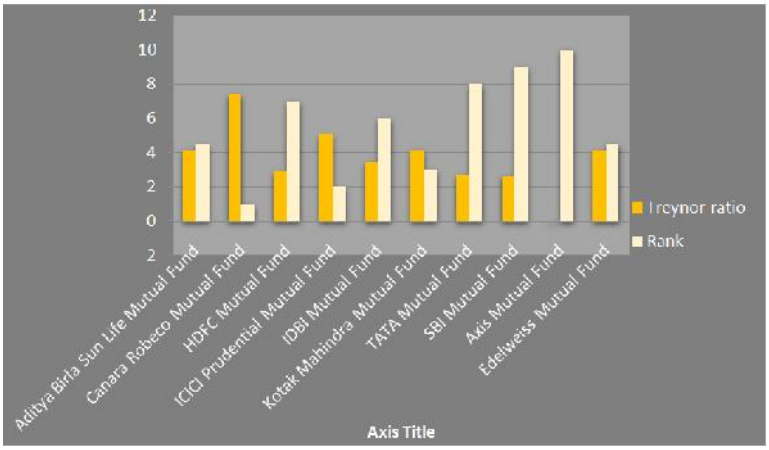
This measure is used to know the ratio of risk-free premium on reward to the volatility of returns as measured by return by the portfolio beta.

$$\text{Treynor Ratio} = \frac{R_p - R_f}{P}$$

Table 3: Equity Saving fund - Regular plan - Growth Treynor ratio and Rank

Name of the Scheme	Treynor Ratio	Rank
Aditya Birla Sun Life Mutual Fund	4.123304847	4.5
Canara Robeco Mutual Fund	7.41067095	1
HDFC Mutual Fund	2.893065254	7
ICICI Prudential Mutual Fund	5.05602769	2
IDBI Mutual Fund	3.457780052	6
Kotak Mahindra Mutual Fund	4.149411842	3
TATA Mutual Fund	2.675062501	8
SBI Mutual Fund	2.665276113	9
Axis Mutual Fund	-0.000634448	10
Edelweiss Mutual Fund	4.123304847	4.5

The above table shows the Treynor Ratio of10 different mutual funds and their rank on the basis of Treynor ratio.



Graph 3: Representing Treynor Ratio and Rank

Interpretation

Treynor ratio is used to calculate the average return beyond the systematic risk. Higher ratio indicates better return and lower ratio indicates lesser return. Higher ratio indicates that the fund giving better return beyond the risk premium. If the fund is giving higher ratio that indicates fund is performing better than the expectations. Among these 10 funds Canara Robeco and ICICI Prudential Equity Saving Fund is giving higher ratio than other mutual fund schemes.

- **Jenson Ratio**

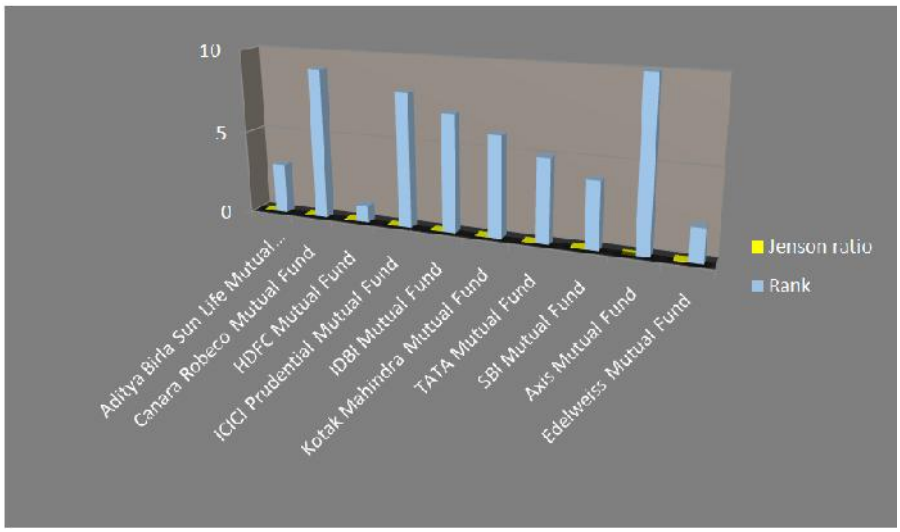
It gives contrast between real returns and anticipated returns of the portfolio.

Jensen ratio = Rp - [Rf+β (Rm-Rf)]

Table 4: Equity Saving Fund - Regular Plan - Growth Jenson Ratio and Rank

Name of the Scheme	Jenson Ratio	Rank
Aditya Birla Sun Life Mutual Fund	0.042460800	3
Canara Robeco Mutual Fund	0.010561053	9
HDFC Mutual Fund	0.046686937	1
ICICI Prudential Mutual Fund	0.012825415	8
IDBI Mutual Fund	0.025894256	7
Kotak Mahindra Mutual Fund	0.032757783	6
TATA Mutual Fund	0.033987273	5
SBI Mutual Fund	0.038660220	4
Axis Mutual Fund	0.005095484	10
Edelweiss Mutual Fund	0.044026830	2

The above table shows the Jenson Ratio of 10 different mutual funds and their rank on the basis of Jenson ratio.



Graph 4: Representing Jenson Ratio and Rank

Interpretation

Positive proportion shows that the store is giving higher the normal return and the negative proportion shows that the reserve is giving lesser than the normal return. Here among these all assets are giving more than the normal return. Comparing these 10 mutual funds HDFC Equity Saving Mutual Fund is performing better than other 9 funds.

Findings

- Investor should be very careful while making investment. While investing, investor must consider both return and risk involved in the scheme. Therefore, while investing, investors should carefully evaluate and analyze the market and other factors.
- Study reveals that the speculator can put resources into Canara Robeco Mutual Fund, ICICI Prudential Mutual Fund and IDBI Mutual Fund.
- All chosen schemes are demonstrating Beta incentive is under 1 which implies that the assets are less unstable than the market. The higher Sharpe and Jenson measure value shows the better performance.
- Investment is less risky when compare to investment in individual shares.

Suggestions

- If investor wants to get more return than the market, they have to take more risk. They should invest in Aditya Birla Sun Life Mutual Fund and SBI mutual fund.. Whereas if they want to take less risk than they should invest in Canara Robeco mutual fund.

- Standard deviation and Beta measures risk of the scheme but while investing standard deviation should be given more preference as it calculates both systematic and unsystematic risk.
- Risk and returns are travels in same direction, if investor wants more return, he should take more risk and invest in more riskier funds, and if he wants less return he can invest in less riskier funds.

Conclusion

In Canara Robeco common reserve and ICICI Prudential shared store is performing better than other 8 shared reserve plans. HDFC Equity Fund is likewise performing better that holds First position in the apparatuses determined that is Jenson proportion. Speculators can invest more into the Canara Robeco Equity Fund, ICICI Prudential Mutual Fund and IDBI shared store. If investor prefers high return with high risk, Aditya Birla Sun Life mutual fund and HDFC mutual fund will be a good option.

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