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A Study on Performance Evaluation of Selected Mutual funds with special reference to ICICI Prudential Mutual Fund , Tirupati

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ABSTRACT:

A mutual fund is a pool of money, which collected from many investors and is invested by an asset management company to achieve some common objectives of the investors. Thus, a mutual fund is a collective investment process. An Asset management company (AMC) collects many investors money. The manager uses the money to buy stocks, bonds and other securities according to specific investment objective that have been established for the fund. In return of the investment, the investors are given units for that fund. The investments range from shares to debentures to money market instruments. Each mutual fund with different type of schemes is managed by respective asset management company (AMC). An investor can invest his money in one or more schemes depending upon his choice. The income earned by the investor and the capital appreciation realized by the scheme is shared by the unit holders in proportion to the number of units held by him. This mutual fund is a best investment option for a common investor as it offers an opportunity to invest in a diversified, professionally managed portfolio at a relatively lower cost. This study covers the performance evaluation of selected mutual funds with respect to ICICI, Tirupati.

Keywords: Mutual funds, Sharpe's Ratio, Treynor Ratio

INTRODUCTION:

It is the price at which a close-ended scheme repurchases its units and it may include a back-end load. This is also called Bid Price.

MUTUAL FUNDS:

According Mr.James pierce- "the mutual fund is an important vehicle for bringing wealth holders and deficit units together indirectly."

According to SEBI (mutual fund) regulations 1993,"mutual fund means a fund established in the form of trust by sponsor to raise moneys by the trustees through the sale of units to the public under one public one or more schemes for investing in securities in accordance with these regulations".

A mutual fund is a pool of money, which collected from many investors and is invested by an asset management company to achieve some common objectives of the investors. Thus, a mutual fund is a collective investment process. An Asset management company (AMC) collects many investors money. The manager uses the money to buy stocks, bonds and other securities according to specific investment objective that have been established for the fund. In return of the investment, the investors are given units for that fund. The investments range from shares to debentures to money market instruments. Each mutual fund with different type of schemes is managed by respective asset management company (AMC). An investor can invest his money in one or more schemes depending upon his choice. The income earned by the investor and the capital appreciation realized by the scheme is shared by the unit holders in proportion to the number of units held by him. This mutual fund is a best investment option for a common investor as it offers an opportunity to invest in a diversified, professionally managed portfolio at a relatively lower cost.

a trust . it pools money from A mutual fund is like – minded unit holders and invests in diversified portfolio of securities through various schemes that address different needs of investors . the pool of money thus collected is then invested by the asset management company (AMC) in different types of securities. These could include shares, debentures, convertibles, bonds, money market instrument of other securities based on the investment objective of a particular scheme. Such objective is clearly laid down in the offer document for that scheme. The fund adds value to the investment in two ways: income earned and any capital appreciation realized through sale this is shared by unit holders in proportion to investors. Mutual funds also offer good investment opportunities to the investors. Like all investments they also carry certain risks. The investors should compare the risks and expected yields after adjustment of tax on various instruments while taking investment decisions. The investors may seek advice from experts and consultants including agents and distributors of mutual funds schemes while making investment decisions.

With an objective to make the investors aware of functioning of mutual funds an attempt has been made to provide information in question – answer format which may help the investors in taking investment decisions.

Till 1986 the unit trust of India was the only mutual fund in India offering a small number of schemes. As the mutual fund sector was

liberalized, new entrants came into the field. At present, there are about 36 mutual funds offering over 1000 schemes. In India the following entities are involved in a mutual fund operation: the sponsor, the mutual fund, the trustees, the asset management company (amc), the custodian, and the registers and transfer agents.

Mutual fund schemes invest in three broad categories for financial assets, viz. stocks, bonds, and cash. Stocks refer to eqity and equityrelated instruments. Bonsare debt instruments that have a maturity of moor than one year. Cash represents bank deposits and debt instruments that have a maturity of less than one year.

Matual fund is an investment vehicle that pools together funds from investors to purchase stocks bonds or other securities . an investor can participate in the mutual fund by ying the units of the fund .each unit is vacked by a diversified pool of assets where the funds have been invested.

There are many alternatives which investment avenues are open to the investors to suit their needs and nature. The selection of investment alternatives are depends up on the required level of return and the risk tolerance level. These alternatives range from financial securities to traditional non – securities investment.

a)investment trust

b) holding companies

c)finance companies

the unit trusts are open – ended schemes where the investor can buy and sell "unit" at his only will and wish. The other advantage of unit trust is that even a small investor can hold shares of many companies and enjoy the returns arising lot of the investment.

The unit trust of india was constituted under the unit trust of india act,1963and became operational in the year 1964 with the basic objectives of movilizing savings through the sale of units and investing them in incorporate securities will the idea of maximizing yield from them and capital appreciation with invuilt liquidity. The unit trust of india still commands a good position among mutual fund inn india and approximately90% of the investments in mutual fund are in the schemes floated by unit trust of India .

The unit trust of india has many highlights in its performance so far.. the monopoly of unit trust of india was brought to and end with the entry of public sector mutual funds in the year 1987. Canara bank state bank of india, Punjab national.

REVIEW OF LITERATURE:

Mutual funds attracted the interests of academicians, researchers and financial analysts mostly since 1986. A number of articles have been published in financial dailies like economic times, business line and financial express, periodicals like capital market, Business India etc., and in professional and research journals. Literature Review on performance evaluation of mutual fund is enormous. Various studies have been carried out in India and abroad to evaluate the performance of mutual funds schemes from time to time. A few research studies that have influenced substantially in preparing the thesis are discussed below in this chapter.

Jack Treynor (1965) developed a methodology for performance evaluation of a mutual fund that is referred to as reward to volatility measure, which is defined as average excess return on the portfolio. This is followed by Sharpe (1966) reward to variability measure, which is average excess return on the portfolio divided by the standard deviation of the portfolio.

Sharpe (1966) developed a composite measure of performance evaluation and imported superior performance of 11 funds out of 34 during the period 1944-63.

Michael C. Jensen (1967) conducted an empirical study of mutual funds in the period of 1954-64 for 115 mutual funds. The results indicate that these funds are not able to predict security prices well enough to

outperform a buy the market and hold policy. The study ignored the gross management expenses to be free. There was very little evidence that any individual fund was able to do significantly better than which investors expected from mere random chance.

Jensen (1968) developed a classic study; an absolute measure of performance based upon the Capital Asset Pricing Model and reported that mutual funds did not appear to achieve abnormal performance when transaction costs were taken into account.

Carlsen (1970) evaluated the risk-adjusted performance and emphasized that the conclusions drawn from calculations of return depend on the time period, type of fund and the choice of benchmark. Carlsen essentially recalculated the Jensen and Shape results using annual data for 82 common stock funds over the 1948-67 periods. The results contradicted both Sharpe and Jensen measures.

Fama (1972) developed a methodology for evaluating investment performance of managed portfolios and suggested that the overall performance could be broken down into several components.

John McDonald (1974) examined the relationship between the stated fund objectives and their risks and return attributes. The study concludes that, on an average the fund managers appeared to keep their portfolios within the stated risk. Some funds in the lower risk group possessed higher risk than funds in the most risky group.

James R.F. Guy (1978) evaluated the risk-adjusted performance of UK investment trusts through the application of Sharpe and Jensen measures. The study concludes that no trust had exhibited superior performance compared to the London Stock Exchange Index.

Henriksson (1984) reported that mutual fund managers were not able to follow an investment strategy that successfully times the return on the market portfolio. Again Henriksson (1984) conclude there is strong evidence that the funds market risk exposures change in response to the market indicated. But the fund managers were not successful in timing the market.

Grinblatt and Titman (1989) concludes that some mutual funds consistently realize abnormal returns by systematically picking stocks that realize positive excess returns.

Ariff and Johnson (1990) made an important study in Singapore and found that the performance of Singapore unit trusts spread around the market

performance with approximately half of the funds performing below the market and another half performing above the market on a risk-adjusted basis.

Cole and IP (1993) investigated the performance of Australian equity trusts. The study found evidence that portfolio managers were unable to earn overall positive excess risk-adjusted returns.

OBJECTIVES OF THE STUDY:

- To know the Market returns and selected schemes returns in ICICI Mutual Fund.
- To compare the selected schemes in ICICI Mutual Fund and other Mutual Fund.
- To know the investor preference while investing in mutual fun

RESEARCH METHODOLOGY:

DATA COLLECTION SOURCES:

Secondary data : collected from company manuals, magazines, Company.

TOOLS FOR ANALYSIS:

AVERAGE RETURN:

- 1. We can know the average return by using this formula.
- 2. Average return=AR/n
- 3. Where

a. AR= Average Return

b. n = No. of years

VARIANCE AND STANDARD DEVIATION:

The most commonly used measures of risk in finance are variance or its square root the standard deviation. These are defined as follows:

$$\sigma^{2} = \left[\frac{\sum_{i=1}^{n} (R_{i} - \overline{R})^{2}}{n}\right]$$

Standard deviation (SD) or $\sigma = \sqrt{\sigma^2}$

$$\beta = \frac{n \sum xy}{n \sum x}$$

BETA: Where,

Variance

R_p=Return on portfolio R_f= Risk free rate of return n=No. of years x=Average returns of market y=Average returns of portfolio

$$S = \frac{(R_P - R_f)}{\sigma_p}$$

SHARPE's RATIO:

Where

S =Sharpe ratio

 $R_{p=}$ Average return on portfolio

R_f=Risk free Rate of Return

TREYNOR RATIO

$$T = \frac{R_p - R_j}{\beta_p}$$

Where,

T =Treynor ratio

- $R_{p=}$ Average return on portfolio
- $R_{f=}Risk$ free Rate of Return
- β: Measure of systematic risk

SCOPE OF THE STUDY

- The study is carried on selected mutual funds such as ICICI.
- We can estimate future rate of return to invest in the mutual funds to gain and save the money
- Predict approximate performance of the funds in the future.

Data Analysis:

PERFORMANCE IN TERMS OF RISK ADJUSTED RATE OF RETURNS OF ICICI TAX SAVING SCHEMES TABLE

Year	Opening	Closing	Returns	Nifty(x)	Y	X2	XY
2016-2017	41.06	46.49	13.224549	18.066646	13.224549	326.403698	238.9232
2017-2018	46.43	48.73	4.9536937	32.790575	4.9536937	1075.22181	162.4345
2018-2019	49.03	54.39	10.932082	30.049715	10.932082	902.985372	328.506
2019-2020	54.57	66.18	21.275426	37.322735	21.275426	1392.98655	794.0571
2020-2021	66.05	91.73	38.879637	45.489485	38.879637	2069.29325	1768.615
TOTAL	257.14	307.52	89.265388	163.7192	89.265388	5766.890672	3292.535



Sharpe ratio =
$$\frac{\overline{R_{p}} - R_{f}}{\sigma_{p}}$$
=17.8530-8/31.94997
=0.3084
Treynor ratio = $\frac{Rp - Rf}{\beta p}$
=17.8530-8/0.536069
=18.3802
Beta = $\frac{n\sum xy - \sum x\sum y}{n\sum x^{2} - (\sum x)^{2}}$

$= \frac{5*3292.535 \cdot 163.72*89.26}{5*(5766.89) \cdot (163.72)2}$ = 0.53607

INTERPRETATION: from the above data, it is observed that the ICICI tax savings schemes Average return is 17.85, S.D is 31.95, sharpe ratio is 0.3084, Treynor ratio is 18.3802 and Beta is 0.53607.

Year	Opening	Closing	Returns	market return(x)	у	x2	Ху
2016-2017	58.87	60.07	2.03839	18.066646	2.03839	326.4037	36.82687
2017-2018	61.3	58.35	-4.8124	32.790575	-4.8124	1075.222	-157.801
2018-2019	59.22	62.6	5.707531	30.049715	5.707531	902.9854	171.5097
2019-2020	62.82	77.35	23.12958	37.322735	23.12958	1392.987	863.2592
2020-2021	78.83	114.33	45.03362	45.489485	45.03362	2069.293	2048.556
TOTAL	321.04	372.7	71.09672	163.719156	71.09672	5766.891	2962.351

PERFORMANCE IN TERMS OF RISK ADJUSTED RATE OF RETURNS OF SBI MAGNUM TAX SAVING SCHEMES TABLE

PERFORMANCE OF SBI MAGNUM TAX SAVING SCHEMES



Average return: AR/n

=71.09672/5 =14.219 Standard deviation =√∑(R-R)2/n =√(71.09672-14.219)2/5



Interpretation:

From the above data it is observed that the SBI magnum tax savings schemes as an average return of 14.219 standard deviation 25.43, sharp ratio 0.24, treynor ratios 0.394, beta value is 0.393544.

YEAR	OPEN	CLOSE	RETURN	Market return(x)	У	x2	XY
2016-2017	5249.2	5833.75	11.14	18.06665	11.13598	326.4037	201.1899
2017-2018	5835	5295.55	-9.25	32.79058	-9.24507	1075.222	-303.151
2018-2019	5296.25	5682.55	7.29	30.04972	7.29384	902.9854	219.1778
2019-2020	5697.35	6704.2	17.67	37.32274	17.67225	1392.987	659.5767
2020-2021	6729.5	8491	26.18	45.48949	26.17579	2069.293	1190.723
Total	28807.3	32007.05	53.03279	163.7192	53.03279	5766.891	1967.517

PERFORMANCE IN TERMS OF RISK ADJUSTED RATE OF RETURNS OF BIRLA SUNLIFE TAX SAVINGS SCHEMES TABLE.



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Average return = AR/n
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=53.03279/5 =10.606 Standard deviation = $\sqrt{\sum (R-R)^2/n}$ =\(53.03272-10.606)2/5 =\(42.42679)2/5 =\(1800.03251)/5 =\/360.00650 = 18.9738 $\overline{R_p} - R_f$ σ_p Sharpe ratio = =10.606-8/18.9738 =2.606/18.9738 =0.2586 Treynor ratio = <u>Rp - Rf</u> βp =10.606-8/0.331132 = 7.8701 Beta = $\underline{n} \sum xy \cdot \sum x \sum y$ n∑x2-(∑x)2 $=\!5(1967.517)\!\cdot\!(163.72)(53.033)/5(5766.89)\!\cdot\!(163.7192)2$ =0.331132

INTREPRETATION: From the data it is observed that Treynor ratio is very high compare Sharpe ratio therefore the birla sun life tax saving schemes risk is very high.

Year	Opening	closing	Returns	Market returns(x)	Y	X2	XY
2016-2017	0	0	0	18.066646	0	326.4037	0
2017-2018	0	0	0	32.790575	0	1075.2218	0
2018-2019	18.54	17.16	-7.4433657	30.049715	-7.4433657	902.98537	-223.671
2019-2020	17.26	20.89	21.031286	37.322735	21.031286	1392.9865	784.9451
2020-2021	20.91	29.09	39.120038	45.489485	39.120038	2069.2932	1779.55
TOTAL	56.71	67.14	52.707958	163.7192	52.707958	5766.89067	2340.824





Average return = AR/n

= 52.0707958/5

=13.5189

Standard deviation = $\sqrt{\sum (R-R)^2/n}$

 $=\sqrt{52.707958-13.5189)2/5}$

 $= \sqrt{(39.89)2/5}$ = \sqrt{1535.78/5} = \sqrt{307.156} = 17.525 $\overline{R_{p}} - R_{f}$ Sharpe ratio = = 13.5189-8/17.525 = 5.5189/17.525 = 0.1408

Treynor ratio = <u>Rp - Rf</u>

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βp
=13.5189-8/0.4176
= 13.21449
Beta = \underline{n \sum xy - \sum x \sum y}
n \sum x^2 - (\sum x)^2
=5*2340.824-(163.72)(52.71)/5*5766.89-(163.72)2
= 0.417641
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INTREPRETATION: from the above table no 4.4 we are observe that the BANK OF INDIA tax saving schemes values of Treynor ratio is increases compare the Sharpe ratio.

PERFORMANCE IN TERMS OF RISK ADJUSTED RATE OF RETURNS OF AXIS BANK TAX SAVING SCHEMES TABLE.

Year	Opening	closing	RETURNS	MARKET RETURN(x)	у	X2	XY
2016-2017	0	0	0	18.066646	0	326.404	0
2017-2018	0	0	0	32.790575	0	1075.22	0
2018-2019	1001.24	1070.41	6.90843354	30.049715	6.908434	902.985	207.5965
2019-2020	1074.2	1170.41	8.95643269	37.322735	8.956433	1392.99	334.2786
2020-2021	1173.94	1278.41	8.89909195	45.489485	8.899092	2069.29	404.8151
TOTAL			24.7639582	163.719156	24.76396	5766.891	946.6901



average return = AR/n =24.764/5 = 4.9527

Standard deviation = $\sqrt{\sum (R-R)2/n}$ = $\sqrt{(24.764-4.953)2/5}$ = $\sqrt{(19.811)2/5}$

=\(392.476/5)
=\(78.49)
= 8.85974854
$\overline{R_p} - R_f$
Sharpe ratio = σ_p
=4.9527-8/8.8597
= -0.663
Treynor ratio = <u>Rp - Rf</u>
βр
=4.9527-8/1.608
=-3.0473/1.608
= -1.8955
$\mathbf{Beta} = \mathbf{n} \underline{\sum} \mathbf{xy} \underline{\sum} \mathbf{x} \underline{\sum} \mathbf{y}$
n∑x2-(∑x)2
=5*946.6901-(163.719)(24.76396)/5*5766.89-(163.719156)2

= 1.607618

INTERPRETATION: from the above table no 4.5 we are observe that the AXIS BANK tax saving schemes values of Sharpe ratio and Treynor ratio is negative when compare the other returns value.

FINDINGS :

- The average return for ICICI TAX savings schemes is high is 17.85 when compared to SBI, Birla sun life, BOI & AXIS. The AXIS bank TAX savings schemes are having very low returns i.e., 4.952 when compared to other schemes.
- The standard deviation for ICICI TAX savings schemes is 31.94 which is very high ,SBI Magnum TAX savings schemes has SD of 25.43 and AXIS bank TAX savings schemes SD Is very low i.e., 8.85.
- Sharpe ratio for ICICI & SBI magnum TAX savings is 0.30 AXIS bank SHARPE ratio is -0.663.
- Treynor ratio for ICICI TAX savings scheme was 18.38, it is -1.89 for AXIS bank.
- Beta value for ICICI TAX saving schemes is 0.53, SBI & Birla Sun Life was 0.39 & 0.33, BOI Beta value was 0.41 & AXIS bank is 0.607.
 SUGGESTIONS:
 - It is suggested to the investors that by observing the average returns and Beta value the ICICI TAX savings schemes is having highest returns with minimum risk when compared with SBI, birla sun life, BOI & AXIS bank TAX savings schemes.
 - With the increase in infrastructure, technologies suggest investors to invest in corporate sectors rather than investing in nationalized sector.
 - Introduction of various schemes and services, online trading its clear that any one wants to invest will surely invest in corporate banks.

CONCLUSION:

- After seeing both the sectors it is observed that corporate sector has performed well when compared to nationalized sector. This is because
 of the increase in technology, various schemes used and introduced, various benefits given to customers, introduction of online facilities
 for customers in the corporate sectors.
- So it's better for investors to invest in corporate sectors rather than investing in nationalized sector which gives them maximum number of return for their investment.
- There are various opportunities to invest our money but mutual funds are better because every one think that "low risk high returns" but in the mutual funds we get the optimum returns with low risk.

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