Risk & Return Anlysis With Performance Evaluation Of Selected Mutual Fund Schemes: An Empirical Study

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Abstract:*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. The cash accordingly gathered is then put into capital market instruments like shares, debentures and different securities. The returns acquired through these shared by its unit holders with respect to the quantity of units possessed by them. The wide assortment of plans coasted by mutual fund organizations gave wide venture decision for the financial backers. Among wide assortment of options differentiated fund is considered an alternative for direct financial exchange venture. In this research paper an attempt is made to analyze the performance of the growth oriented equity diversified schemes on the basis of return and risk evaluation and along with to evaluate the performance of selected schemes of different mutual funds in India. The sample consists of 2(Equity Linked and Balanced with each scheme Dividend and Growth options) schemes from the selected two public limited and two private limited companies over a study period of 6 Months spanning from September 2020 to February 2021. The performance of selected funds is evaluated by using statistical tools like average rate of return of funds, standard deviation, and risk adjusted techniques are used by using Sharpe's ratio, Treynor's ratio and Jensen's ratio with ranks has done for the purpose of analysis.*

Key Words: *Mutual funds Schemes, Return, Risk (Standard Deviation), Average rate of return, Sharpe's, Treynor's and Jensen's measure of performance evaluation*

1. INTRODUCTION

Mutual fund refers to an institution which is professionally managed by the portfolio managers. The money pooled from various people invested in various options of securities market, the returns derived from these investments shared among the investors as per their contribution is concern. Taxation and risk divergence are key benefits one can avail from

mutual fund. There are diverse flexible schemes from which the investors can choose as per their plan to meet future financial requirements. Like any other stock investment vehicle, mutual funds are also subject to market risks. The performance evaluation of mutual funds is done on a risk-adjusted basis. The earlier studies highlighted that the actual returns from mutual funds is significantly depends on the ability of fund managers. Now the research question is how portfolio managers can allocate the funds among varied portfolios to gain more returns. In this respect, there is a need for an accurate and reliable measure by which the performance of various funds, being linked to the performance of their managers can be assessed and evaluated. This is an important issue for academicians. Besides this, the investors need a dependable technique to measure the performance of the actively managed portfolios. Hence, under this study a risk attuned method called sharp ratio, Treynor's Ratio and Jenson Ratio models were executed to assess performance of different mutual fund decisions. This study also focused on evaluating the performance of Equity Linked Saving Scheme and Balanced Scheme. This is based on evaluating the schemes of LIC, UTI, Prudential ICICI and Reliance. The schemes are evaluated based on risk- adjusted returns.

Need for the Study

The study is mainly carried out in order to appraise the performance of Equity Linked Saving Scheme and Balanced Schemes of LIC, UTI, Reliance and Prudential ICICI. As there is lot of competition bidding in this industry and many foreign companies are launching their funds in India, it has become important that companies differentiate their products in order to capture the domestic market, hence a study of Equity Linked Saving Scheme and balanced schemes enable the organization to choose the sectors give maximum returns.

Scope of the Study

The study covers two major schemes, Equity Linked Saving Scheme and Balanced schemes with both Dividend and Growth option. The period of the study is September, 2020 – February, 2021. The comparative study extends to two public sector companies LIC and UTI and two private sector companies Prudential ICICI and Reliance.

Objective of the study:
➢ To study the performance of Equity Linked Saving Scheme of Mutual Fund Companies for the period September, 2020 – February, 2021.
➢ To study the performance of Balanced Scheme of Mutual Fund Companies for the period September, 2020 – February, 2021.
➢ To compare the performance of Equity Linked Saving Scheme of public sector mutual fund companies, viz., LIC and UTI with private sector mutual fund companies, viz., Prudential ICICI and Reliance with both Dividend and Growth Option.

Research Design:

The Descriptive research design has been used in this study. Descriptive research studies, which are concerned with describing the characteristics of a particular individual or of a group or a situation. In this study, Equity Linked schemes and Balanced Schemes (Equity Linked and Balanced with each scheme wise Dividend and Growth options) are evaluated to know the state of affairs as it existed during September, 2020 – February, 2021. This helps to know the performance of the schemes.

Sources of Data:
The data were also collected from various websites of AMCs, AMFI, moneycontrol.com etc.

Study Period:
Data of 6 Months is taken under the study from September, 2020 to February, 2021. Six Months is a sufficient time period where the performance of mutual funds can be compared with one another. The COVID-19 pandemic time frame is avoided as it can show abnormal results.

Tools and Techniques:
Sharpe's Performance Evaluation: In this model, performance of a fund is evaluated on the basis of Sharpe ratio, which is a measure developed to calculate risk adjusted returns. The Sharpe ratio is the difference between the annualized return (R_p) and the risk free return (R_f) divided by the Standard Deviation (SD), during the specified period.   Sharpe ratio $= (R_p - R_f)/\sigma$. Whereas an extraordinary and optimistic Sharpe ratio indicates a superior risk attuned performance of a fund, a little and undesirable Sharpe ratio is a pointer of disparaging performance.

Treynor's Performance Evaluation: Developed by Jack Treynor's, this performance measure evaluates funds on the basis of Treynor's index. There is no credit risk, during a given period and the systematic risk associated with it , symbolically, it can be represented by as Treynor's index $= R_p - R_f / \beta$. Where R_p signifies yield on fund, R_f is risk free rate of return and B is beta of the fund. All risk − averse investors would like to maximize the value.

Jenson's Performance Evaluation: Jenson's model proposes another risk adjusted performance measure. This model evaluates the difference between expected vs. actual returns from the investment under the settings of organized risk. The variance between the two returns termed Alpha, required return of a fund at a given level of risk (B_i) can be calculated as: $R_i = R_f + \beta_i (R_m - R_f)$ Where, R_m is average market return during the given period.

Limitations of the study:
The study is restricted to Equity Linked Saving Scheme and Balanced Schemes. The Period of six months taken for analysis is a limitation. Comparative study is restricted to two public sector, LIC and UTI and two private sector Prudential ICICI and Reliance companies only. The period of research of Six months was a limitation.

2. REVIEW OF LITERATURE

Ashraf, S. H., & Sharma, D. (2014), analyzed equity mutual funds against risk-free return and benchmark indices over five years. The risk-return analysis revealed that out of ten schemes, three had underperformed and seven are found to have lower total risk than the market, and all the schemes have given returns higher than risk-free rates. Regression analysis reveals that benchmark return has a statistically significant impact on mutual fund return at 5% level of significance.Rekha, C. U., &Rajender, K. (2014) under study they selected 12 mutual fund schemes from 6 AMC's for five years discovered that fund managers are not able to beat the market consistently.Choudhary, V., & Chawla, P. S. (2014) attempted to analyze the performance of the growth-oriented equity diversified schemes based on return and risk

evaluation The analysis depicts that the majority of funds selected for the study have outperformed under Sharpe Ratio as well as Treynor Ratio.Jagric, T., Podobnik, B., Strasek, S., &Jagric, V. (2015) tried to study the mutual fund market and apply various tests to evaluate the performance of the funds, through this study they found on risk- attuned base the selected funds extremely good in the market. Gupta, S., Shrivastava, S. K., &Bhatnagar, V. K. (2015)the empirical study conducted 1st April 2008 to 31st March 2013 on Indian market base identified that majority funds under study outperformed during this period.Bhagyasree, N., &Kishori, B. (2016) investigated the performance of open-ended, growth equity schemes from April 2011 to March 2015. The daily closing NAV of diversified schemes has been taken to evaluate the returns from the fund schemes. BSE-Sensex is used for the market portfoliothis study found that among 30 stocks 14 were achieved the target returns. The results show that few schemes which underperformed were facing a diversification problem. The positive Sharpe ratio of all funds indicated that funds were achieving returns higher than the risk-free rate. The Jensen measure showed that 19 out of 30 schemes showed positive alpha, which indicated the superior performance of the schemes.K. N. Sheth, Himani Mittal &FalguniPrajapati (2017) with the help of Sharpe, Treynor, and Jensen measures, they evaluated 16 mutual fund schemes. The risk-return analysis is also done using the standard deviation and beta as the measures of risk, which is further used to compare the performance of selected funds concerning the market. Comparing the private and public mutual funds, it was found that private mutual funds are much more beneficial rather than public mutual fund companies for the investors to invest.

Ravichandran, D. M., &Jayraj, A. (2017) aimed at evaluating the performance of mutual funds and also to inspect the role of asset management companies about the public and private sector. The primary objective of this research is to study the financial performance of sample mutual fund schemes through statistical tools such as (beta, standard deviation, coefficient of determination, Sharpe ratio). The findings suggested mixed results as some funds were able to outperform the market and benchmark index while others underperformed.Sridevi, O. V. A. M. (2018)18, attempted to compare the performance of balanced mutual fund schemes between mid-cap and small-cap fund based on return and risk evaluation. The analysis was achieved by assessing various financial tests like Average Return, Sharpe Ratio, Treynor Ratio, Jensen's Ratio, Standard Deviation, Beta, and Alpha. The analysis has reported diversified and varied results.

Dhandayuthapani, D. S., &Arunpratheep, S. (2018)19, evaluated the performance of select Mutual fund schemes in HDFC. The analysis has been made based on the Sharpe ratio, Treynor ratio, and Jenson's alpha ratio. The data has been collected from various websites of mutual funds. The analysis depicts that most of the funds selected for learning have outperformed below Sharpe Ratio as well as Treynor Ratio and Jenson's alpha ratio.V. Rathnamani&P.Ravichandran (2018)20, evaluated that liquid fund has returns at higher rates than what the savings deposits without much of a difference. The present study assessed the performance of liquid fund returns using an arithmetic mean and compounded annual growth rate, risk and return of the fund have been analyzed by standard deviation, beta, Sharpe and Treynor ratio further funds performance has been compared with its benchmark return.Alwi, S., Ahmad, R., Hashim, I. Z. A., &Naim, N. M. (2019)21, investigated the Islamic and Conventional Mutual Fund Performance. the performance of 200 Islamic and Conventional mutual funds between 2007-2015. The sub-sample period between2007-2015 will be compared to the era of the financial crisis during 2007-2008. Overall performance for both

Islamic and Conventional mutual funds shows a slight difference in terms of average return, standard deviation, Sharpe ratio, and Jensen Alpha. Even though both IMFs and CMFs outperform higher than the market benchmark, IMFs performed slightly better performance than CMFs for both periods.

Tripathi, S., &Japee, D. G. P. (2020)22, the main aim of this paper was to evaluate the performance of selected open-ended mutual funds through various statistical tools like Jenson's alpha, beta, standard deviation, and Sharpe ratio. The researcher found that 10 funds out of the 15 funds under the study performed satisfactorily in a volatile market. The researcher also found that an investor should take into account the risk ratios of the funds before investing.Sharma, K. B. (2020)23, this study is based on secondary data of five debt mutual for a period between January 2017 to December 2019. The study used various statistical tools like alpha, beta, Sharpe ratio, and Jenson's ratio to evaluate the performance of these mutual funds. The study found that three out of the five mutual funds have performed well. This study provides some insight into the performance of mutual fund which will help the investors in taking calculated and rational decisions based on the performance of the mutual fund.

Calculation of Sharpe Index Ratio for the Period September 2020 →February 2021 (Equity Linked Saving Scheme→Dividend Option)
Average Return = Total Return / Number of Months

Company Name	LIC	UTI	Prudential ICICI	Reliance
Month	(R)	(R)	(R)	(R)
July	0.1336	0.5036	**1.3279**	0.0551
August	0.2017	0.6098	1.6122	0.1547
September	0.2654	0.6944	1.8456	0.2279
October	0.2633	0.7844	1.9171	0.3131
November	0.1232	0.8748	1.7900	0.3666
December	0.1355	0.8874	1.6630	0.4243
Total	1.1227	4.3544	10.1558	1.6417
Average Return	0.1871	0.7257	1.6926	0.2736

Sharpe Index Ratio (Equity Linked Saving Scheme→Dividend Option)
Sharpe Index Ratio = $R_p - R_f$ /σ
Standard Deviation = $(R - \text{Average Return})^2$
R_f = Risk free rate is 7.5%

| Particulars	LIC	UTI	Prudential ICICI	Reliance
Average Return	0.1871	0.7257	1.6926	0.2736
Standard Deviation	0.0660	0.1520	0.2115	0.1124
Sharpe Index Ratio	1.6996	4.2803	7.6487	1.7668
Rank	IV	II	I	III

Sharpe Index Ratio
Equity Linked Saving scheme→ Dividend Option
Interpretation
From this analysis, Prudential ICICI Tax Plans Performance is better than the other Mutual Fund companies in case of dividend option. Prudential ICICI ranks first with the highest Sharpe Index ratio of 7.6487, with the highest average return of 1.6926 and with the highest

Standard Deviation of 0.2115 followed by UTI, with the Sharpe Index Ratio of 4.2803, Reliance with the Sharpe Index Ratio of 1.7668 and LIC with the Sharpe Index Ratio 1.6996.
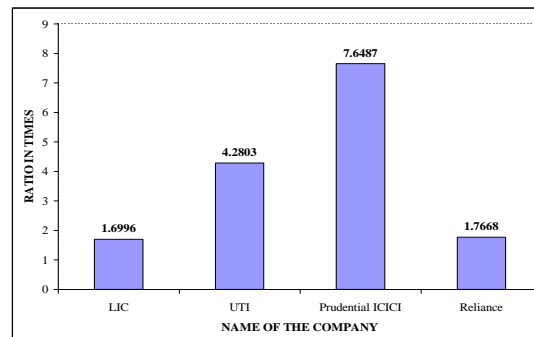
Calculation of Sharpe Index Ratio for the period September 2020 to February 2021
Equity Linked Saving Scheme→Growth Option
Calculation of Average Return
Average return = Total Return / Number of Months

Company Name	LIC	UTI	Prudential ICICI	Reliance
Month	(R)	(R)	(R)	(R)
July	1.0942	1.4465	6.2509	0.0551
August	1.2222	1.6228	7.1479	0.1560
September	1.3376	1.7581	7.8637	0.2279
October	1.4328	1.9053	8.0860	0.3131
November	1.5600	2.0529	8.2116	0.3632
December	1.5880	2.0732	8.0481	0.4243
Total	8.2348	10.8588	45.6082	1.5396
Average Return	1.3725	1.8098	7.6014	0.2566

Sharpe index ratio (Equity Linked Saving scheme –Growth Option)

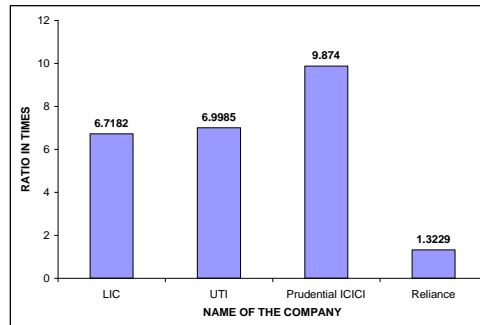Sharpe index ratio = $\dfrac{Rp - Rf}{\sigma}$

Standard deviation =(R− Average Return) ^2

Rf = Risk Free Rate is 7.5%

Particulars	LIC	UTI	Prudential ICICI	Reliance
Average Return	1.3725	1.8098	7.6014	1.5396
Standard Deviation	0.1931	0.2479	0.7622	0.1373
Sharpe Index Ratio	6.7182	6.9985	9.8740	1.3229
Rank	III	II	I	IV

Interpretation
From this analysis, Prudential ICICI Tax Plans Performance is better than the other Mutual Fund companies in case of growth option. Prudential ICICI ranks first with the highest Sharpe Index ratio of 9.8740, with the average return of 7.6014 and with the highest Standard Deviation of 0.7622, followed by UTI, with the Sharpe Index Ratio of 6.9985, LIC with the Sharpe Index Ratio of 6.7182 and Reliance with the Sharpe Index Ratio of 1.3329. Higher the magnitude of the Sharpe ratio, higher is the performance rating of the scheme and higher the Standard deviation, higher the element of risk in a scheme.

Calculation of Sharpe index Ratio for the period
September 2020 – February 2021
Balanced Scheme → Dividend Option
Calculation of Average Return
Average Return = Total Return / Number of Months

Company Name	LIC	UTI	Prudential ICICI	Reliance
Month	(R)	(R)	(R)	(R)
July	0.0908	0.8389	0.5840	0.4647
August	0.1563	0.9376	0.6675	0.6776
September	0.1253	1.0468	0.7336	0.8097
October	0.1412	1.1304	0.6740	0.8331
November	0.1837	1.1809	0.7484	0.9002
December	0.2052	1.1876	0.7707	0.8506
Total	0.9025	6.3222	4.1782	4.5359
Average Return	0.1504	1.0537	0.6964	0.7560

Sharpe Index Ratio→Balanced Scheme →Dividend Option
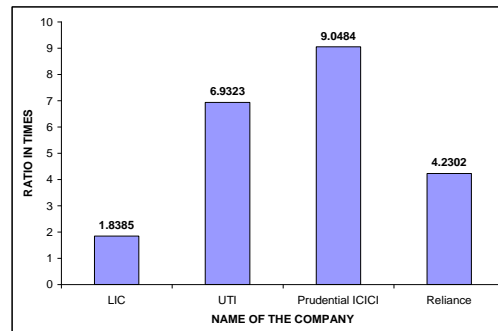**Sharpe Index Ratio = Rp – Rf/ σ**
 Standard Deviation =(R – Average Return)^2
Rf =Risk Free Rate is 7.5%

Particulars	LIC	UTI	**Prudential ICICI**	**Reliance**
Average Return	0.1504	1.0537	0.6964	0.7560
Standard Deviation	0.0410	0.1412	0.0687	0.1610
Sharpe Index Ratio	1.8385	6.9323	9.0484	4.2302
Rank	IV	II	I	III

Sharpe's Index Ratio for Balanced Scheme→ Dividend Option
From the above analysis, Prudential ICICI Balanced Schemes, Performance is better than the other Mutual Fund companies in case of dividend option. Prudential ICICI ranks first with the highest Sharpe Index ratio of 9.0484, with the average return of 0.6964 and with the Standard Deviation of 0.0687 followed by UTI, with the Sharpe Index Ratio of 6.9323, Reliance with the Sharpe Index Ratio of 4.2302and LIC with the Sharpe Index Ratio of 1.8385. Though the Standard Deviation for Prudential ICICI is less compared to UTI, the Sharpe Index ratio is higher; this shows the higher performance rating of the scheme.

Calculation of Sharpe Index Ratio for the period
September 2020 – February 2021
Balanced Scheme→ Growth Option→Calculation of Average Return
Average Return = Total Return / Number of Months

Company Name	LIC	UTI	Prudential ICICI	Reliance
Month	(R)	(R)	(R)	(R)
July	2.7206	3.6535	1.8331	0.5576
August	2.9400	3.9015	1.9809	0.7829
September	3.1286	4.1771	2.0990	0.9233
October	3.2403	4.3894	2.2000	0.9481
November	3.3981	4.5210	2.3532	0.9517
December	3.4780	4.5330	2.3963	0.9674
Total	18.9056	25.1755	12.8625	5.131
Average Return	3.1509	4.1959	2.1438	0.8552

Sharpe Index Ratio
Balanced Scheme→Growth Option
Sharpe Index Ratio = Rp – Rf /σ
Standard Deviation =(R – Average Return)^2
Rf =Risk free rate is 7.5%

Particulars	LIC	UTI	Prudential ICICI	Reliance
Average Return	3.1509	4.1959	2.1438	0.8552
Standard Deviation	0.2850	0.3572	0.2172	0.1606
Sharpe Index Ratio	10.7914	11.5364	9.5254	4.8578
Rank	II	I	III	IV

Sharpe's Index Ratio   For Balanced Scheme – Growth Option
From the above analysis, Unit Trust of India's Balanced Schemes, performance is better than the other Mutual Fund companies in case of growth option. UTI ranks first with the highest Sharpe Index ratio of 11.5364, with the average return of 4.1959, with the average return of 4.1959 and with the highest Standard Deviation of 0.3572 followed by LIC, with the Sharpe Index Ratio of 10.7914, Prudential ICICI with the Sharpe Index Ratio of 9.5254 and Reliance with the Sharpe Index Ratio of 4.8578. Higher the magnitude of the Sharpe ratio, higher is the performance rating of the scheme and higher the Standard deviation, higher the element of risk in a scheme. This shows that Higher the risk higher the return.

Calculation of Treynor's Ratio for the period→September 2020 – February 2021
Equity Linked Saving Scheme→Dividend **OptionTreynor's Ratio   = Rp - Rf / β**
Average Return on portfolio   = Rp
The Systematic Risk measured by Beta (β).
If β = 1 → Indicates securities is having average Rate of Systematic Risk
β> 1 → Securities Return fluctuate more than the Market Return.
β< 1 → Securities Returns are less sensitive to the changes in the Market Returns.
Risk free rate is 7.5%   = Rf
Treynor's Ratio For Equity Linked Saving Scheme→Dividend Option

Particulars	LIC	UTI	Prudential ICICI	Reliance
Rp	0.1871	0.7257	1.6926	0.2736
Beta	1.08	0.99	1.13	1.06
Treynor's Ratio	0.1038	0.6573	1.4315	0.1874
Rank	IV	II	I	III

Treynor's Ratio for Equity Linked Saving Scheme – Dividend Option
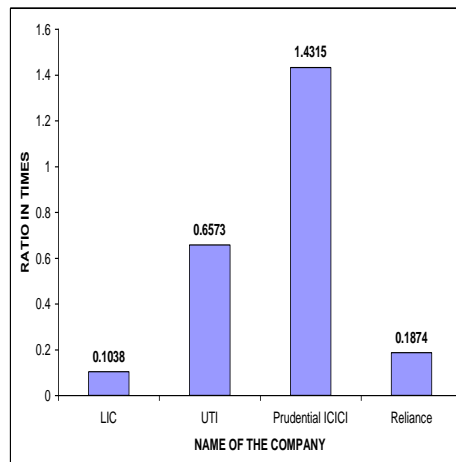
From the above analysis, Prudential ICICI Tax Plan Performance is better than other Mutual Fund Companies in case Dividend option. Prudential ICICI ranks first with highest Treynor's ratio of 1.4315 followed by UTI, with the Treynor's Ratio of 0.6573 , Reliance, with the Treynor's Ratio of 0.1874 and LIC with the Treynor's Ratio of 0.1038. This highest Treynor's Ratio indicates the superior risk – adjusted performance of the fund.

Calculation of Treynor's Ratio for the period→September 2020 →February 2021
Equity Linked Saving Scheme – Growth Option
Treynor's Ratio   = Rp - Rf / β

Average Return on portfolio = Rp

The Systematic Risk measured by Beta (β).

If $\beta = 1$ → Indicates securities is having average Rate of Systematic Risk

$\beta > 1$ → Securities Return fluctuate more than the Market Return.

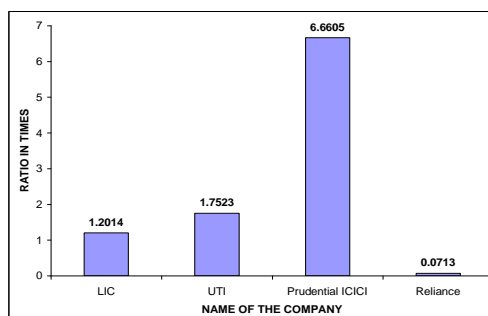$\beta < 1$ → Securities Returns are less sensitive to the changes in the Market Returns.

Risk free rate is 7.5% = Rf

Treynor's Ratio for Equity Linked Saving Scheme→Growth Option

Particulars	LIC	UTI	Prudential ICICI	Reliance
Rp	1.3725	1.8098	7.6014	0.2566
Beta	1.08	0.99	1.13	1.06
Treynor's Ratio	1.2014	1.7523	6.6605	0.0713
Rank	III	II	I	IV

Treynor's Ratio for Equity Linked Saving Scheme – Growth Option

From the above analysis Prudential ICICI Tax Plan performance is better than other Mutual Fund Companies in case of Growth Option. Prudential ICICI ranks first with the highest Treynor's ratio of 6.6605and with the highest beta of 1.13 followed by, UTI with the Treynor's Ratio of 1.7523 ,LIC with the Treynor's Ratio of 1.2014 and Reliance with the Treynor's Ratio of 0.0713. This highest Treynor's ratio is an indicator of favorable performance.

Calculation of Treynor's Ratio for the period September, 2020 – February, 2021

Balanced scheme→ Dividend Option→Treynor's Ratio = Rp - Rf

            β

Average Return on portfolio = Rp

The Systematic Risk measured by Beta (β).

If $\beta = 1$ → Indicates securities is having average Rate of Systematic Risk

$\beta > 1$ → Securities Return fluctuate more than the Market Return.

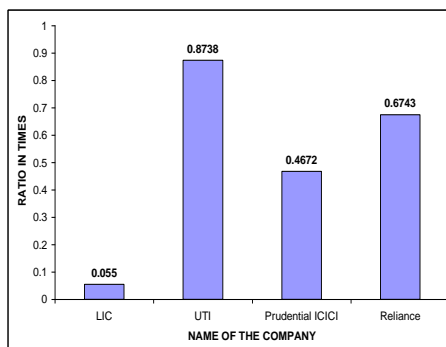$\beta < 1$ → Securities Returns are less sensitive to the changes in the Market Returns.

Risk free rate is 7.5% = Rf

Treynor's Ratio forBalanced scheme→Dividend Option

Particulars	LIC	UTI	Prudential ICICI	Reliance
Rp	0.1504	1.0537	0.6964	0.7560
Beta	1.37	1.12	1.33	1.01
Treynor's Ratio	0.0550	0.8738	0.4672	0.6743
Rank	IV	I	III	II

Treynor's Ratio ForBalanced Scheme – Dividend Option
From the above analysis, UTI Balanced Scheme performance is better than other Mutual Fund Companies in case of Dividend Option. UTI ranks first with the highest Treynor's ratio of 0.8738 followed by, Reliance with the Treynor's Ratio of 0.6743, Prudential ICICI with the Treynor's Ratio of 0.4672 and LIC with the Treynor's Ratio of 0.0550. This highest Treynor's ratio is an indicator of highest performance of the fund.

Calculation of Treynor's Ratio for the period September, 2020→February, 2021

Balanced scheme→growth option
Treynor's Ratio   = Rp - Rf/ β   Average Return on portfolio =Rp
The Systematic Risk measured by Beta (β).
If $\beta = 1$ → Indicates securities is having average Rate of Systematic Risk
$\beta > 1$ → Securities Return fluctuate more than the Market Return.
$\beta < 1$ → Securities Returns are less sensitive to the changes in the Market Returns.
Risk free rate is 7.5%   = Rf

**Treynor's Ratio forBalanced Scheme→ Growth Option**

Particulars	LIC	UTI	Prudential ICICI	Reliance
Rp	3.1509	4.1959	2.1438	0.8552
Beta	1.37	1.12	1.33	1.01
Treynor's Ratio	2.2452	3.6794	1.5555	0.7725
Rank	II	I	III	IV

Treynor's Ratio for

Balanced Scheme – Growth Option
Interpretation
From the above analysis, UTI Balanced scheme performance is better than other Mutual Fund Companies in case of Growth option. UTI ranks first with the highest Treynor's ratio of 3.6794 followed by, LIC with the Treynor's Ratio of 2.2452,Prudential ICICI with the Treynor's Ratio of 1.5555 and Reliance with the Treynor's Ratio of 0.7725. This highest Treynor's Ratio is an indicator of superior risk – adjusted performance of the fund.
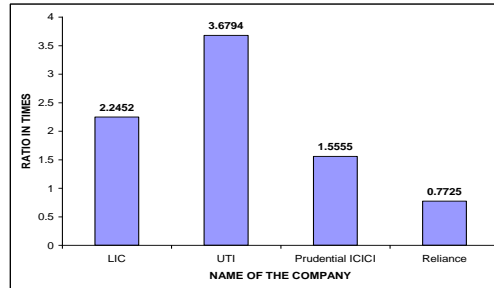
Calculation of Jenson Ratio for the period September,2020 – February, 2021
Equity Linked Saving Scheme – Dividend Option
Jenson Ratio Ri = Rf + β (rm - Rf)
Alpha = Actual Return – Required Return
Performance of the Equity Linked Saving Scheme – Dividend Option based on the Alpha

Particulars	LIC	UTI	Prudential ICICI	Reliance
Actual Return (Rp)	0.1871	0.7257	1.6926	0.2736
Beta	1.08	0.99	1.13	1.06
Jenson Ratio (Ri)	0.0756	0.0756	0.0757	0.0756
Alpha	0.1115	0.6501	1.6169	0.198
Rank	IV	II	I	III

Note: Rm - Average Market Return during the period for ELSS is 7.56%
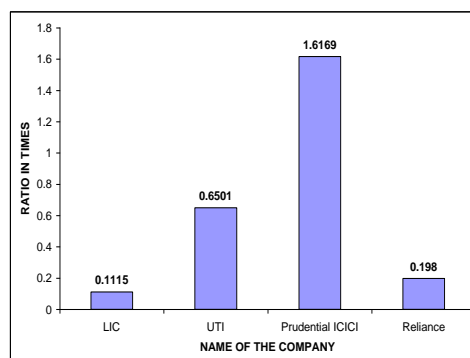**Rf – Risk Free Rate is 7.5%**
Ri – Required Return
Rp– Average Return on portfolio
The Systematic Risk measured by Beta (β).
If $\beta = 1$ → Indicates securities is having average Rate of Systematic Risk
$\beta > 1$ → Securities Return fluctuate more than the Market Return.
$\beta < 1$ → Securities Returns are less sensitive to the changes in the Market returns.

JENSON RATIO FOR
Equity Linked Saving Scheme – Dividend Option
Showing the performance for the scheme based on the Alpha
From the above analysis, Prudential ICICI Tax Plan performance is better than other Mutual Fund Companies in case of Dividend Option. Prudential ICICI ranks first with the highest alpha of 1.6169 followed by, UTI with the alpha of 0.6501, Reliance with the alpha of 0.198

and LIC with the alpha of 0.1115. Highest Alpha represents the superior performance of the fund.

Calculation of Jenson Ratio for the period September, 2020 →February, 2021
Equity Linked Saving Scheme→Growth Option
Jenson Ratio $Ri = Rf + \beta (Rm - Rf)$
Alpha = Actual Return – Required Return

Performance of the Equity Linked Saving Scheme – Growth Optionbased on the Alpha

Particulars	LIC	UTI	Prudential ICICI	Reliance
Actual Return (Rp)	1.3725	1.8098	7.6014	0.2566
Beta	1.08	0.99	1.13	1.06
Jenson Ratio (Ri)	0.0756	0.0756	0.0757	0.0756
Alpha	1.2969	1.7342	7.5257	0.181
Rank	III	II	I	IV

Note: Rm - Average Market Return during the period for ELSS is 7.56%
 Rf – Risk Free Rate is 7.5% ,Ri – Required Return, Rp– Average Return on portfolio
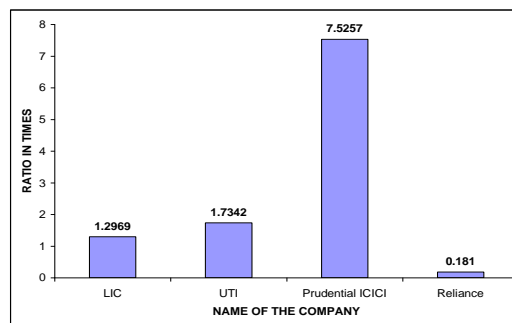The Systematic Risk measured by Beta (β).
If $\beta = 1$ → Indicates securities is having average Rate of Systematic Risk
$\beta > 1$ → Securities Return fluctuate more than the Market Return.
$\beta < 1$ → Securities Returns are less sensitive to the changes in the Market Returns.
Jenson Ratio for Equity Linked Saving Scheme →Growth Option
Performance for the Scheme based on the Alpha

From the above analysis, Prudential ICICI Tax Plan performance is better than other Mutual Fund Companies in case of Growth Option. Prudential ICICI ranks first with the highest alpha of 7.5257 followed by, UTI with the alpha of 1.7342, LIC with the alpha of 1.2969 and Reliance with the alpha of 0.181. Highest Alpha represents the superior performance of the fund.

Calculation of Jenson Ratio for the period September 2020→ February 2021Balanced Scheme→Dividend Option
Jenson Ratio $Ri = Rf + \beta (Rm - Rf)$
Alpha = Actual Return – Required Return
Performance of the Balanced Scheme – Dividend Optionbased on the Alpha

Particulars	LIC	UTI	Prudential ICICI	Reliance
Actual Return (Rp)	0.1504	1.0537	0.6964	0.7560

| Beta	1.37	1.12	1.33	1.01
Jenson Ratio (Ri)	0.0710	0.0717	0.0711	0.0720
Alpha	0.0794	0.982	0.6253	0.684
Rank	IV	I	III	II

Note: Rm - Average Market Return during the period for ELSS is 7.56%
Rf – Risk Free Rate is 7.5%, Ri – Required Return, Rp– Average Return on portfolio
The Systematic Risk measured by Beta (β).
If $\beta = 1$ → Indicates securities is having average Rate of Systematic Risk
$\beta > 1$ → Securities Return fluctuate more than the Market Return.
$\beta < 1$ → Securities Returns are less sensitive to the changes in the Market Returns.
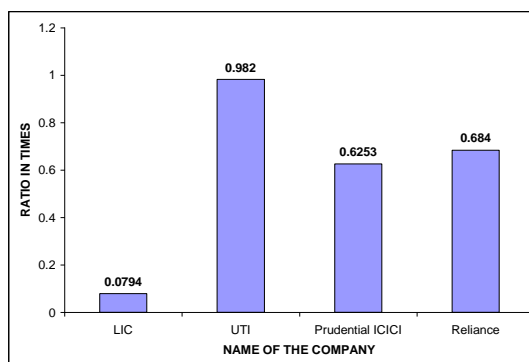
Jenson Ratio For Balanced Scheme – Dividend Option
Performance for the scheme based on the Alpha
Interpretation
From the above analysis, UTI Balanced Schemes performance is better than other Mutual Fund Companies in case of Dividend Option. UTI ranks first with the highest alpha of 0.982 followed by, Reliance with the alpha of 0.684, Prudential ICICI with the alpha of 0.6253and LIC with the alpha of 0.0794. Highest Alpha represents the superior performance of the fund.
Calculation of Jenson Ratio for the period September, 2020– February, 2021
Balanced Scheme→Growth OptionJenson Ratio Ri = Rf + β (Rm - Rf)
Alpha = Actual Return – Required Return
Performance of the Balanced Scheme – Growth Optionbased on the Alpha

Particulars	LIC	UTI	Prudential ICICI	Reliance
Actual Return (Rp)	3.1509	4.1959	2.1438	0.8552
Beta	1.37	1.12	1.33	1.01
Jenson Ratio (Ri)	0.0710	0.0717	0.0711	0.0720
Alpha	3.0799	4.1242	2.0727	0.7832
Rank	II	I	III	IV

Note: Rm - Average Market Return during the period for ELSS is 7.56%
Rf – Risk Free Rate is 7.5%
Ri – Required Return
Rp– Average Return on portfolio
The Systematic Risk measured by Beta (β).
If $\beta = 1$ → Indicates securities is having average Rate of Systematic Risk
$\beta > 1$ → Securities Return fluctuate more than the Market Return.
$\beta < 1$ → Securities Returns are less sensitive to the changes in the Market Returns.

Jenson Ratio for Balanced Scheme→Growth Option
Performance for the scheme based on the Alpha
From the above analysis, UTI Balanced Schemes performance is better than other Mutual Fund Companies in case of Growth Option. UTI ranks first with the highest alpha of 4.1242 followed by, LIC with the alpha of 3.0799, Prudential ICICI with the alpha of 2.0727 and Reliance with the alpha of 0.7832. Highest Alpha represents the superior performance of the fund.
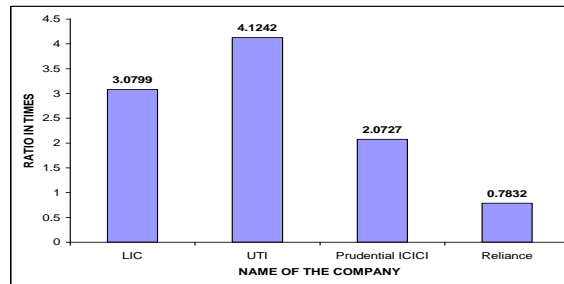
Summary of Findings
From Equity Linked Saving Scheme (Dividend Option)
1. **Sharpe Ratio**: Prudential ICICI Tax Plans performance is ranked as first with the highest Sharpe Index Ratio of 7.6487 and with the highest Standard Deviation of 0.2115 followed by UTI, Reliance and LIC. This shows that higher the risk higher the return.
2. **Treynor's Ratio**: Prudential ICICI Tax Plans performance is again ranked as first with the highest Treynor's Ratio of 1.4315, followed by UTI, Reliance and LIC.
3. **Jenson Model:** Prudential ICICI Tax plan performance is ranked as first with the highest alpha of 1.16169, followed by UTI, Reliance and LIC.
Public Sector Vs Private Sector
The public sector mutual fund company's performance is better than the private sector mutual fund companies in case all the three ratios viz., Sharpe Ratio, Treynor's Ratio, and Jenson Model from equity linked saving scheme (Growth Option):
1. **Sharpe Ratio**: Prudential ICICI Tax Plan performance is ranked as first with the highest Sharpe Index Ratio of 9.8740 and with the highest Standard Deviation of 0.7622, followed by UTI, LIC and Reliance. This shows that higher the risk higher the return.
2. **Treynor's Ratio**: Prudential ICICI Tax Plan performance is again ranked as first in case of Treynor's ratio with the highestTreynor's Ratio of 6.6605, followed byUTI, LIC and Reliance.
3. **Jenson Model**: Prudential ICICI Tax plan performance is ranked as first in case of Jenson Model with the highest alpha of 7.5257, followed by UTI, LIC and Reliance.
Public sector vs. Privatesector
The public sector mutual fund companies performance is better than the private sector mutual fund companies in case all the three ratios viz., Sharpe Ratio, Treynor's Ratio, and Jenson Model.
From Balanced Scheme (Dividend Option)
1. **Sharpe Ratio**: Prudential Balanced Scheme performance is ranked as first with the highest Sharpe Index Ratio of 9.0484 and with the highest Standard Deviation of 0.0687, followed by UTI, Reliance and LIC.

2. **Treynor's Ratio**: UTI Balanced Scheme performance is ranked as first with the highest Treynor's Ratio of 0.8738, followed by Reliance, Prudential ICICI and LIC. Higher the Treynor's Ratio is an indicator of favorable performance.
3. **Jenson Model**: UTI Balanced Scheme performance is ranked as first in case of Jenson Model with the higher alpha of 0.982 followed by Reliance, Prudential ICICI and LIC.

Public sector vs. Private sector
1) The private sector mutual fund companies' performance is better than the public sector mutual fund companies in case of Sharpe Ratio.
2) The public sector mutual fund companies' performance is better than the private sector mutual fund companies in case of both Treynor's Ratio and Jenson Model.

From Balanced Scheme (Growth Option)
1. **Sharpe Ratio:** UTI Balanced Scheme performance is ranked as first with the highest Sharpe Index Ratio of 11.5364, and with the highest Standard Deviation of 0.3572, followed by LIC, Prudential ICICI and Reliance. This shows that higher the risk, higher the return.
2. **Treynor's Ratio**: UTI Balanced scheme performance is ranked as first with the highest Treynor's Ratio of 3.6794, followed by LIC, Prudential ICICI and Reliance.
3. **Jenson Model:** UTI Balanced Scheme performance is again ranked as first in case of Jenson Model with the highest alpha of 4.1242, followed by LIC, Prudential ICICI and Reliance.

Public Sector Vs. Private Sector: The public sector mutual fund Companies outperforms the private sector mutual fund companies in case of all the three ratios viz., Sharpe Ratio, Treynor's Ratio and Jenson Model.

Suggestions
Product innovation is now the passes with the game shifting to performance delivery in fund management. Lotus India AMC will be surely a successful AMC in the future if the AMC innovates new products and understands the investors' expectations. In general the companies have to keep track with the Brokers and Distributors by often meeting them for better performance and to update them about our products. The company should come forward to introduce more schemes at the right time for the benefit of the fund house, investors, brokers, and the distributors. Every investor before they go for investment decision, they should analyze the mutual funds in terms of fund performance. The fund manager should carefully select the scheme based on the market timing. The portfolio manager should disclose all the information to the investors which is related to mutual fund as well as the company performance so that the investors can easily understand the company performance. In general the private sector mutual fund companies outperforms the public sector mutual fund companies, if the Lotus India AMC understands their Competitors and the market they will have an edge over their competitors in the future.So the AMC's should come forward to educate individuals about the benefit of mutual funds.

3. CONCLUSION

Mutual Funds are the ideal investment vehicle for today's complex and modern financial scenario. The last few years have been very exciting for the mutual funds Industry in India. Product innovation is now passé with the game shifting to performance delivery in fund management as well as service. The private sector mutual fund companies' performance is better than the public sector mutual fund companies in case of Equity Linked Savings Scheme.The public sector mutual fund Companies outperforms the private sector mutual fund companies of all the three ratios viz., Sharpe Ratio, Treynor's Ratio and Jenson Model in case

Balanced Scheme. Hence, we conclude that it is always good to invest in the funds which performing well over the period of time in the market.

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