

Risk-return Perception of Investors Towards UTI Mutual Funds 11.06.2010

Abstract

For the purpose of the study, 100 investors of UTI mutual funds in Salem district have been selected at random and using structured questionnaire, primary data have been collected. Factor analysis, inter-correlation, Paired Sample T-Test, ANOVA and Chi square have been used for analysis of data. This research study makes an attempt to identify the factors influencing the risk return perception of the investors towards mutual funds. It can be inferred that there exists a significant difference between the risk and return perception of investors for few funds. It is found that there exists a fairly positive correlation among the factors time horizon, investment knowledge, toleration level, fall in the stock portfolio and fall in the bond portfolio. Also, it can be inferred that there is significant association between investment knowledge and the toleration level of the investors.

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Introduction

The study of risk and return continues to be an area of vital importance for researchers; however, the theorizing and empirical findings in this area continue to present a series of problems. The risk-return relationship has been presented in the literature in two distinct ways. One is the discussion on whether the relationship between risk and return is positive, negative, or curvilinear. The second involves empirical anomalies that researchers are confronted with when examining the numerous studies in this area. There have been relatively few explanations that have satisfactorily reconciled these differences. The purpose of writing this paper is to suggest that the differently theorized risk and return relationships.

The Risk/Return Tradeoff

The risk/return tradeoff could easily be called the “ability-to-sleep-at-night test.” While some people can handle the equivalent of financial skydiving without batting an eye, others are terrified to climb the financial ladder without a secure harness. Deciding what amount of risk you can take while remaining comfortable with your investments is very important.



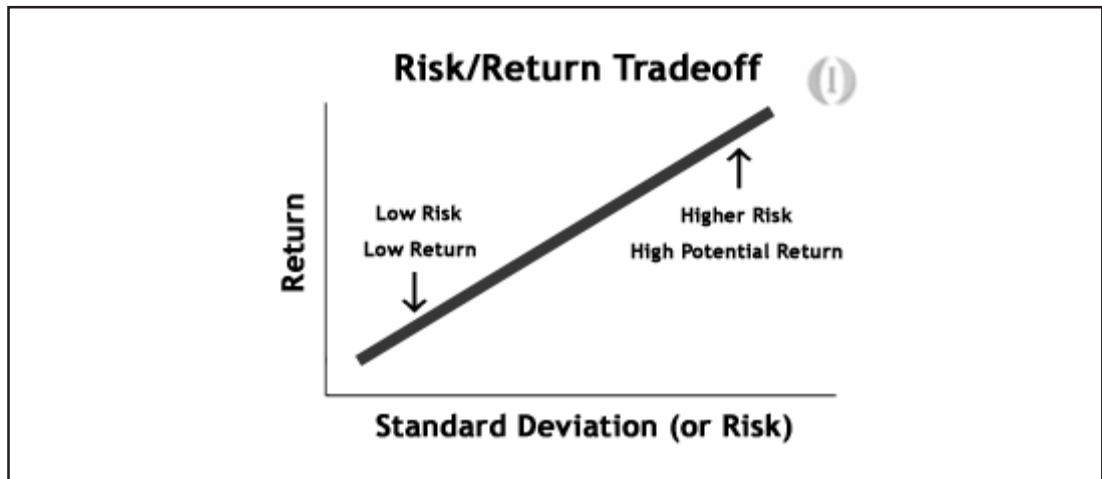
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In the investing world, the dictionary definition of risk is the chance that an investment's actual return will be different than expected. Technically, this is measured in statistics by standard deviation. Risk means you have the possibility of losing some, or even all, of our original investment. Low levels of uncertainty (low risk) are associated with low potential returns. High levels of uncertainty (high risk) are associated with high potential returns. The risk/return tradeoff is the balance between the desire for the lowest possible risk and the highest possible return. This is demonstrated graphically in the chart below. A higher standard deviation means a higher risk and higher possible return.



A common misconception is that higher risk equals greater return. The risk/return Tradeoff tells us that the higher risk gives us the possibility of higher returns.

There are no guarantees. Just as risk means higher potential returns, it also means higher potential losses.

On the lower end of the scale, the risk-free rate of return is represented by the return on U.S. Government Securities because their chance of default is next to nothing. If the risk-free rate is currently 6%, this means, with virtually no risk, we can earn 6% per year on our money.

The common question arises: who wants to earn 6% when index funds average 12% per year over the long run? The answer to this is that even the entire market (represented by the index fund) carries risk. The return on index funds is not 12% every year, but rather -5% one year, 25% the next year, and so on. An investor still faces substantially greater risk and volatility to get an overall return that is higher than a predictable government security. We call this additional return the risk premium, which in this case is 6% (12% - 6%).

Determining what risk level is most appropriate for you isn't an easy question to answer. Risk tolerance differs from person to person. Your decision will depend on your goals, income and personal situation, among other factors.

Defining Managerial Risk Behaviors

Risk Seeking

Risk seekers will take choices that involve greater potential loss and/or a higher probability of a loss, and at the evaluation stage, risk seekers tend to take information at face value. Risk

seekers typically underestimate risk in the sense that they tend to overestimate gains and underestimate losses. At the earliest stage of problem recognition, risk seekers perceive risks as being lower than risk averters. Risk seekers focus more on the opportunities for gain or the potential for gain, or they may so behave on account of personality dispositions.

Risk Aversion

Risk averters are more attentive to monitor or track the consequences of their decisions compared to risk seekers, and as a consequence, risk averters tend to demand more information on probabilities, adopting worst-case scenarios. Risk averters typically overestimate risk in that they tend to overestimate losses and underestimate gains. At the earliest stage of problem recognition, risk averters perceive risks as being higher than risk seekers. Moreover, risk averters focus more on the likelihood of loss or the potential for loss on account of personality dispositions.

Indian Mutual Fund Industry

Structure Of The Indian Mutual Fund Industry

Structure wise Mutual fund Industry can be classified in to three categories:

Unit Trust of India

The Indian Mutual Fund industry is dominated by the Unit Trust of India, which has a total corpus of Rs.51,100 crore collected from over 20 million investors. The UTI has many funds/ schemes in all categories i.e. Equity, Balanced, Debt, Money Market etc. With some being open ended and some being closed ended. The Unit scheme 1964 commonly referred to as US 64, which is a balanced fund, it is the biggest scheme with a corpus of about 10,000 crores.

Public Sector Mutual Funds

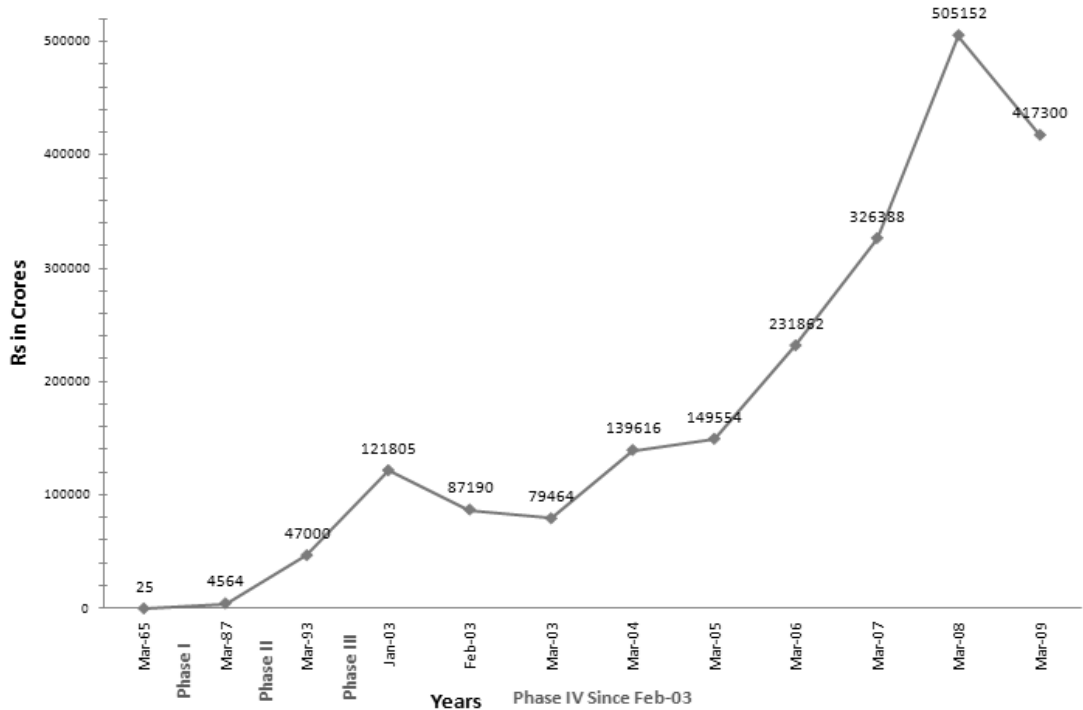
The second largest categories of mutual funds are the ones floated by nationalized banks. Canbank asset management floated by Canara Bank and SBI Funds Management floated by State Bank of India are the largest of these. GIC AMC floated by General Insurance Corporation and Jeevan Bima Sahayog AMC floated by the LIC are some of the other prominent ones. The aggregate corpus of the funds managed by this category of AMC's is around Rs. 8,300 crore.

Private Sector Mutual fund

The third largest categories of mutual funds are the ones floated by the Private Sector Domestic Mutual funds and the Private Sector Foreign Mutual Funds. The largest of these in Private Sector Domestic Mutual funds are Cholamandalam Asset Management Co.Ltd., J.M Capital Management Co. Ltd., Escort Asset Management Ltd., Birla Sun Life Asset Management Pvt.Ltd., and in Private Sector Foreign Mutual Funds these are Alliance Capital Asset Management Pvt.Ltd., Prudential ICICI Management Co. Ltd. The aggregate corpus of the assets managed by this category of AMC's is about Rs. 42,200 crore .

- At the end of September 2004, there were 29 funds, which manage assets of Rs.1, 53,108/- Crores under 421 different schemes.

Growth In Assets Under Management



Source: AMFI website

Types of Mutual Fund Schemes

Wide variety of Mutual Fund Schemes exists to cater to the needs such as financial position, risk tolerance and return expectations etc. The table below gives an overview into the existing types of schemes in the Industry.

By Structure

- Open - Ended Schemes
- Close - Ended Schemes
- Interval Schemes

By Investment Objective

- Growth/Equity Schemes
- General Purpose
- Income/Debt Funds

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- Money Market
 - Gilt Funds
 - Balanced Schemes

Other Schemes

- Tax Saving Schemes
- Special Schemes:

Sector Specific Schemes

- Index Schemes

Open Ended Schemes

The units offered by these schemes are available for sale and repurchase on any business day at NAV based prices. Hence, the unit capital of the schemes keeps changing each day. Such schemes thus offer very high liquidity to investors and are becoming increasingly popular in India.

Close Ended Schemes

The unit capital of a close-ended product is fixed as it makes a one-time sale of fixed number of units. These schemes are launched with New Fund Offer (NFO) with a stated maturity period after which the units are fully redeemed at NAV linked prices. In the interim, investors can buy or sell units on the stock exchanges where they are generally listed. Unlike open-ended schemes, the unit capital in Close-ended schemes usually remains unchanged. After an initial closed period, the scheme may offer direct repurchase facility to the investors. Close-ended schemes are usually more illiquid as compared to open-ended schemes and hence trade at a discount to the NAV. This discount tends towards the NAV closer to the maturity date of the scheme.

Interval Schemes

These schemes combine the features of open-ended and Close-ended schemes. They may be traded on the stock exchange or may be open for sale or redemption during pre-determined intervals at NAV based prices.

Growth/Equity Schemes

These schemes, also commonly called Growth Schemes, seek to invest a majority of their funds in equities and a small portion in money market instruments. Such schemes have the potential to deliver superior returns over the long term. However, because they invest in equities, these schemes are exposed to fluctuations in value especially in the short term.

Equity schemes are hence not suitable for investors seeking regular income or needing to use their investments in the short-term. They are ideal for investors who have a long-term investment horizon. The NAV prices of equity fund fluctuates with market value of the underlying stock which are influenced by external factors such as social, political as well as economic. Sahara Growth Fund is the example for equity schemes.

General Purpose Equity Schemes

The investment objectives of general-purpose equity schemes do not restrict them to invest in specific industries or sectors. They thus have a diversified portfolio of companies across a large spectrum of industries. While they are exposed to equity price risks, diversified general-purpose equity funds seek to reduce the sector or stock specific risks through diversification.

Income /Debt Schemes

These schemes, also commonly known as Income Schemes, invest in debt securities such as corporate bonds, debentures and government securities. The prices of these schemes tend to be more stable compared with equity schemes and most of the returns to the investors are generated through dividends or steady capital appreciation. These schemes are ideal for conservative investors or those who are not in a position to take higher equity risks. However, as compared to the money market schemes they do have a higher price fluctuation risk and compared to a Gilt fund they have a higher credit risk.

These schemes invest in money markets, bonds and debentures of corporate companies with medium and long-term maturities. These schemes primarily target current income instead of capital appreciation. Hence, a substantial part of the distributable surplus is given back to the investor by way of dividend distribution. These schemes usually declare quarterly dividends and are suitable for conservative investors who have medium to long-term investment horizon and are looking for regular income through dividend or steady capital appreciation.

Money Market Schemes

These schemes invest in short term instruments such as commercial paper ("CP"), certificates of deposit ("CD"), treasury bills ("T-Bill") and overnight money ("Call"). The schemes are the least volatile of all the types of schemes because of their investments in money market instrument with short-term maturities. These schemes have become popular with institutional investors and high net-worth individuals having short-term surplus funds.

Gilt Funds

These primarily invest in Government Debt. Hence, the investor usually does not have to worry about credit risk since Government Debt is generally credit risk free. The investor is open to Interest risk, where the value of the securities changes in relation to the market scenario.

Balanced Schemes

These schemes are also commonly called balanced schemes. These invest in both equities as well as debt. By investing in a mix of this nature, balanced schemes seek to attain the objective of income and moderate capital appreciation. Such schemes are ideal for investors with a conservative, long-term orientation.

Tax Saving Schemes

Investors (individuals and Hindu Undivided Families ('HUFs')) are being encouraged to invest in equity markets through Equity Linked Savings Scheme ("ELSS") by offering them a tax rebate. Units purchased cannot be assigned / transferred/ pledged / redeemed / switched - out until completion of 3 years from the date of allotment of the respective Units. The Scheme is subject to Securities & Exchange Board of India (Mutual Funds) Regulations, 1996 and the notifications

issued by the Ministry of Finance (Department of Economic Affairs), Government of India regarding ELSS. Subject to such conditions and limitations, as prescribed under Section 80 C of the Income-tax Act, 1961, subscriptions to the Units not exceeding Rs.1, 00, 000 would be fully tax exempt from income tax. The exemption under section 80 C of IT act is also applicable to other eligible schemes.

Special Schemes

Sector Specific Equity Schemes

These schemes restrict their investing to one or more pre-defined sectors, e.g. technology sector. They depend upon the performance of these select sectors only and are hence inherently more risky than general-purpose equity schemes. Ideally suited for informed investors who wish to take a view and risk on the concerned sector.

Index schemes

An Index is used as a measure of performance of the market as a whole, or a specific sector of the market. It also serves as a relevant benchmark to evaluate the performance of mutual funds. Some investors are interested in investing in the market in general rather than investing in any specific fund. Such investors are happy to receive the returns posted by the markets. As it is not practical to invest in each and every stock in the market in proportion to its size, these investors are comfortable investing in a fund that they believe is a good representative of the entire market. Index Funds are launched and managed for such investors.

Literature Review

Several studies have been carried out with the objective of studying the customers risk and return perception of retail Indian investors. The main conclusion of all studies is that retail investors are going more and more aware about the relation between risk and return.

Nosic and Weber (2009)

They use data from a repeated survey panel that was run with real online broker customers in September 2008, December 2008, and March 2009. In all three surveys subjects' risk attitudes, risk expectations, return expectations, and risk taking behavior, i.e. the proportion of wealth they are willing to invest into the stock market compared to a risk free asset, were elicited. Using this unique dataset they analyze whether risk taking, risk attitudes, and expectations change from one quarter to the other and whether the latter two have an impact on risk taking behavior. Their results indicate that risk taking behavior decreases substantially from September to December and from December to March. Similarly, risk expectations and return expectations also change substantially from one survey to the next one. In contrast, various measures of risk attitudes are fairly stable over the time periods. Interestingly, observed changes in risk taking behavior can primarily be attributed to changes in risk and return expectations but not to changes in past performance or changes in risk attitudes. Moreover, our findings are valuable for practitioners - who are urged by MiFID (2006) to elicit their customers' risk profiles and risk preferences - since we show that risk attitudes remain fairly stable and that changes in investment behavior can mainly be attributed to changes in expectations. Lastly, they illustrate that overconfidence seems to be a fairly stable construct between September and December and tends to decrease slightly from December to March.

Litty and Braun (2009) - This research has been conducted to correctly model and predict the risk and return structures of Private Equity (PE) funds. Although past research has revealed valuable insight into the features of those funds, most risk and return model struggle with the dispersion of PE funds' returns, their illiquidity and the factors driving the returns. The goal of this paper is to develop a methodology to correctly determine the risk and return profiles of Private Equity funds given their respective characteristics of management skill, investment focus and investment stage. They overcome the shortcomings of prior models by applying new methods like adequate return distribution fitting on the investment level, K-means clustering, and Copulae which have not been used in this research field before in order to estimate dependencies of return distributions on the investment level to obtain a joint distribution on the fund level. Their model offers investors the possibility to estimate the risk and return profile of any selected fund by the respective funds' management features, investment focus and investment stage. Investors will thereby be able to choose a fund which matches their desired risk and return expectations, enabling them to maximize their investment utility.

Nosic and Weber (2008)

In their research study analyze the determinants of investors' risk taking behavior and find that investors' risk taking behavior is affected by their subjective risk attitude and by the risk and return of an investment alternative. Study results also suggest that consistent with previous findings in the literature objective or historical return and volatility of a stock are not as good predictors of risk taking behavior as subjective risk and return measures. Moreover, they illustrate that overconfidence or more precisely miss calibration has an impact on risk behavior as predicted by theoretical models. However, results regarding the effect of various determinants on risk taking behavior heavily depend on the domain the respective determinant is elicited. They interpret this as an indication for extended domain specificity. In particular with the Markets of Financial Instruments Directive (MiFID) coming into effect believe practitioners could improve on their investment advising process by incorporating some of the determinants argue to influence investment behavior.

Keeris and Langbroek (2009)

In order to take properly founded investment decisions, the anticipated value creation of a property investment should be identified by the investor. Because usual methods of analysis for determining the return/risk profile produce an inaccurate and incomplete picture, the purpose of this paper is to propose a number of improvements. By examining the framework on which most used statistical risk analyses are based, improvements can be made, based on known, but not commonly used approaches. These improvements give a more satisfying risk analysis result, in which chances are also made visible. And find that main principle of use is the downside risk approach, which only takes into account the negative deviations from self-determined return criteria. The analysis is then based on four new created ratios, which collectively provide a better and more complete picture of the return/risk profile as a whole

Gupta & Sehgal, in their research paper "Investment performance of mutual funds: The Indian Experience" (1998), tried to find out the investment performance of 80 schemes managed by 25 mutual funds, 15 in private sector and 10 in public sector for the time period of June 1992-1996. The study has examined the performance in terms of fund diversification and consistency of performance. The paper concludes that mutual fund industry's portfolio has performed well.

Matthew and Hrishikesh, in this paper named "Estimation risk in mutual fund ratings: The case of Morningstar" (May 17, 2001) examined estimation risk in the well known Morningstar mutual fund star rating system. As a result, investors can be somewhat less confident that the rating of young funds are truly what they are estimated to be.

The study conducted by *Larry R Lung and Robert M. Niendorf* examined whether internationally diversified mutual funds increase a U.S. investor's risk-adjusted return above that on a domestic benchmark mutual fund. Average returns on about one-half of the international funds exceeded the domestic benchmark fund's return. The risk-adjusted returns on the international mutual funds were not significantly different from that on the domestic benchmark fund. These results differ from earlier studies, which generally found superior returns on international mutual funds. The benefits for the U.S. investor of holding an internationally diversified mutual fund appears to be limited for the period studied.

Need for Study

Basically this study is done to find the investors perception towards risk & return in mutual funds. In the present situation most of them are moving towards investment through various sources and one is the Mutual funds. The main thing in mutual fund is the knowledge about the schemes and what amount of risk they face in it. The pathetic condition is many of the investors don't have the knowledge about it and so they don't like to bear the loss. So, a survey is conducted between various investors to find their risk & return perception about every funds and their knowledge in it.

Objectives

- To study the factors influencing the risk and return perception of investors in mutual funds.
- To analyze the association between the profile of the investors and perception factors.
- To study the preference of asset allocation among the Investors.
- To study the association between the investors knowledge and the toleration level
- To find the factors influencing the investors decision to choose a AMC
- To study the inter correlation among time horizon, investment knowledge, toleration level, fall in the stock and bond portfolio.

Limitations

- Due to paucity of time and other resources a country wide survey is not possible so, this research report does not contain the overall perception of the Indian investors.
- Some respondents do not have the knowledge about the terminology used in the questionnaire and they are also not familiar with all of the investment options available for an investor.
- Some respondents do not show the keen interest in giving the information about their personal thinking and perception, because they have the fear that the personal information may become public.

Research Methodology

Research Design

Research design used in this study is analytical in nature because investors perception risk and return has been analyzed using statistical tools such as paired t test, inter-correlation, chi-square, factor analysis, and ANOVA.

Sample Size

The sample size taken for that study is 100 investors and the sample is taken on the random basis and the researcher has used questionnaire to collect the data.

Data Collection

There are two types of the data used for the research; one is the Primary Data which is collected with the help of questionnaire. This data gives the conclusion about the topic and other type of data is the Secondary data which is gathered through websites, prospects book given by UTI mutual fund and research work carried out in the past.

Tools for Analysis

This tool used analysis and interpreting data are

- Paired t-test
- Correlation analysis
- Chi-square test
- Factor analysis
- One way ANOVA

Hypothesis

1. There is no significant difference between risk and return
2. Positive correlation among the factors time horizon, investment knowledge, toleration level, fall in the stock portfolio and fall in the bond portfolio.
3. No significant association between investment knowledge and toleration level
4. There is No significant difference between age, income and occupation of the investor and their investing factors past performance of scheme, growth preservation, safety, return, tax benefits and ratings of MF by agencies.

Data Analysis and Interpretation

Demographic Profile of the Investors

Out of 100 respondents who visited UTI mutual fund maximum 62% of respondents are in age group of 20-39yrs, is 28% respondents are in age group of 40-59yrs, 7% respondents are in the age group of 60&above and respondents between 0-19 yrs of age are the one who invest least.

Maximum no. of investors for UTI mutual funds are businessman i.e. 31%. 30% of respondent are private employees 10% are government employees 9% are housewife and 12% are others.

It is observed that maximum investment is done by the investors who are less than 5 lakhs as income and this group constitute around 68% of investors after that it is 24% of people whose

income is 5 to 10 lakhs rest 8% of investment is done by the investors with income level between 10 to 25 lakhs.

The primary data reveals that maximum of 38% of investors like to invest in the time span of 6-10 yrs, 37% of investors like to invest in time span of 2-5 yrs, 20% of investors like to invest for a short period of less than 2 yrs and rest like to invest for the time span of 11-15 and above 15 yrs.

According to the data out of 100 respondents who invested in UTI mutual fund maximum 39% of respondents willing to go for asset allocation of 40:60(debt: equity), 22% go for 50:50 ratio, 18% of them choose for 20:80 ratio, 14% choose for 25:75 and remain investors go for 75:25 and others.

It is found that 54 respondents have an objective to invest for children education, 48 respondents for house, 32 for the retirement benefit, and 15 of them do investment for children education as well as for house.

Paired t-Test

The present study included nine kinds of investment products on which the investors were asked to rate the risk and return associated with each of such categories. The Paired t-Test here is performed to determine how far the risk and return perception of investors are associated, i.e. to know how far the law that returns are directly proportional to risk taken is factual according to the investors' perception.

Risk - Return Perception of Investors and their Association

Null Hypothesis, **H0:** There is no significant difference between risk and return perception of investors' towards various schemes

Alternate Hypothesis, **H1:** There is significant difference between risk and return perception of investors' towards various schemes

Table 1
Paired Comparison Between Risk And Return

Risk – Return in Alternatives		Paired Differences at 95% Confidence Interval				
		Mean	Std. Deviation	Std. Error Mean	T	Sig. (2-tailed)
Pair 1	Risk equity - Return equity	.250	1.192	.119	2.097	.039
Pair 2	Risk index - Return index	.250	1.306	.131	1.915	.058
Pair 3	Risk asset - Return asset	-.190	1.032	.103	-1.841	.069
Pair 4	Risk debt - Return debt	-.290	.782	.078	-3.707	.000
Pair 5	Risk balanced - Return balanced	-.220	.799	.080	-2.754	.007
Pair 6	Risk income - Return income	.000	.943	.094	.000	1.000
Pair 7	Risk liquid - Return liquid	.190	.813	.081	2.338	.021
Pair 8	Risk ELSS – Return ELSS	-.020	.921	.092	-.217	.829

The paired comparison between risk and return perception of investors with regard to certain investment alternatives are shown in the above table. The p-value (sig. 2-tailed) implies whether to accept or reject the null hypothesis, i.e., p-value less than 0.05 means to reject null hypothesis and vice-versa.

Inference

From the above result of paired comparison between risk and return associated with various investment alternatives, it can be inferred that there exists a significant difference between the risk and return perception of investors for few funds as the p-value is less than .05 at 95% confidence interval. Also among 8 investment products 4 of the investment products mean difference is less than zero which signifies that for those investment alternatives the investors perceive higher risk involved than the return it gives.

From this it appears that many of the investors have a clear perception about few well know schemes they seem to believe in the traditional dictum of financial theory that is “Higher the Risk – Higher the Return”.

Correlation Analysis

The present study included five questions with regard to risk taking capacity of investors, i.e., time horizon, investment knowledge, toleration level, fall in the stock portfolio and fall in the bond portfolio. The correlation analysis is performed to determine the closeness of relationship among the five factors through which the investors’ risk perception can be matched with their investing practices.

Table :2
Inter Correlation Among Risk Factors

		Time horizon	Investment knowledge	Toleration level	Stock portfolio loss	Bond portfolio loss
Time horizon	Pearson Correlation	1	.216 [*]	.305 ^{**}	.093	.117
	Sig. (2-tailed)		.031	.002	.356	.247
	N	100	100	100	100	100
Investment knowledge	Pearson Correlation	.216 [*]	1	.334 ^{**}	.270 ^{**}	.124
	Sig. (2-tailed)	.031		.001	.007	.218
	N	100	100	100	100	100
Toleration level	Pearson Correlation	.305 ^{**}	.334 ^{**}	1	.198 [*]	-.006
	Sig. (2-tailed)	.002	.001		.048	.954
	N	100	100	100	100	100
Stock portfolio loss	Pearson Correlation	.093	.270 ^{**}	.198 [*]	1	.486 ^{**}
	Sig. (2-tailed)	.356	.007	.048		.000
	N	100	100	100	100	100
Bond portfolio loss	Pearson Correlation	.117	.124	-.006	.486 ^{**}	1
	Sig. (2-tailed)	.247	.218	.954	.000	
	N	100	100	100	100	100

The inter correlation among the five factors is shown in the above table. Positive value of the Pearson Correlation signifies positive relationship, i.e. symmetric and closeness in relationship, whereas negative value signifies negative relationship, i.e. asymmetric and reverse relationship.

Inference

From the above result of inter-correlation among the five factors, it can be inferred that there exists a fairly positive correlation among the factors time horizon, investment knowledge, toleration level, fall in the stock portfolio and fall in the bond portfolio. Further, the highest positive correlation is between the factors bond portfolio loss and stock portfolio loss as their correlation value is comparatively the highest. The second highest correlation is between investment knowledge and toleration level. The negative correlation exists between the factors toleration level and bond portfolio loss.

Chi-square Test

Chi-square test here is performed to determine the level of association between investment knowledge and the toleration level which is used to identify whether they are willing to tolerate decrease in the value of your account from one month to the next.

Null Hypothesis, **H0:** No significant association between investment knowledge and toleration level

Alternate Hypothesis, **H1:** Significant association between investment knowledge and toleration level

Table No- 3

Association Between Investment Knowledge And Toleration Level

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	25.732 ^a	8	.001
Likelihood Ratio	25.992	8	.001
Linear-by-Linear Association	11.038	1	.001
N of Valid Cases	100		

Association between the two factors is shown in the above table. The p-value (sig. 2-tailed) implies whether to accept or reject the null hypothesis, i.e., p-value less than 0.05 means to reject null hypothesis and vice-versa.

Inference

From the above result of Chi-square test between investment knowledge and the toleration level, it can be inferred that there is significant association between investment knowledge and the toleration level of the investors.

Factor Analysis

The present study includes 13 variables to measure the factors which investors see while investing in a mutual fund. The selected investors were asked to rate that 13 variables at five point scale on the basis of their preference. The score on these 13 variables are included for the factor analysis in order to narrate the variables into factors and to know which factor has more impact on the investors' criteria of mutual fund selection.

INVESTORS' SELECTION CRITERIA FRO INVESTING IN A MUTUAL FUND

Table : 4
Factor Loading For Mutual Fund Selection Factors
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.504
Bartlett's Test of Sphericity	Approx. Chi-Square	191.952
	Df	78
	Sig.	.000

	Initial Eigen values	% of Variance	Reliability coefficient
Safety	2.236	17.198	0.77
Liquidity	1.688	12.983	
Returns earned	1.618	12.449	
Tax earnings	1.281	9.854	
Performance	1.129	8.682	
Ratings	1.050	8.075	
Advertisement	.809	6.219	
Recommendation	.702	5.402	
Capital	.697	5.365	
Growth	.606	4.660	
Volatility	.504	3.875	
Inflation	.362	2.785	
Cash flow	.319	2.452	

The 13 variables related to the factors which investors see while investing in a mutual fund are clustered together and shown in the above table with their Eigen values. The Eigen value indicates to how far a variable has an impact on investors' criteria for investing in mutual fund.

Inference

From the above result of factor analysis of mutual fund selection, referring to the Eigen values it can be inferred that safety, liquidity, returns earned, tax earning, performance of past scheme and rating of mutual fund by agencies has a major impact on the investors in selecting a mutual fund since they are greater than the Eigen value 1. since KMO is $>.5$ and $p < .001$ the factor analysis is appropriate.

One Way Anova

One Way ANOVA here is performed to analyze the association between the investors' profile variables and factors consider for investing in mutual fund.

Null Hypothesis **H0:** There is No significant difference between age, income and occupation of the investor and their investing factors past performance of scheme, growth preservation, safety, return, tax benefits and ratings of MF by agencies.

Alternate Hypothesis **H1:** There is significant difference between age, income and occupation of the investor and their investing factors past performance of scheme, growth preservation, safety, return, tax benefits and ratings of MF by agencies.

Table : 5

Association Between Investors' Profile Variables And Investing Factors

Investors' profile variables	Factors consider for investing in a mutual fund					
	p-value for Performance	p-value for Growth	p-value for Safety	p-value for Return	p-value for tax Benefits	p-value for Ratings
Occupation	0.935	0.271	0.903	0.169	0.300	0.427
Age	0.696	0.916	0.009	0.828	0.204	0.148
Annual income	0.167	0.858	0.937	0.557	0.733	0.462

Association between the investors' profile variables and factors consider for investing in a mutual fund are shown in the above table. P-value $< .05$ means to reject null hypothesis and vice-versa.

Inference

From the above result of One Way ANOVA, it can be inferred that there exists significant difference between investors' age and safety, as the p-values for this variable is less than 0.05. In other words it can be said that investors' safeness in investment differs with their age. Other profile variables don't make much difference to investors' mutual fund choosing decision.

Statistical Tools	Accept Alternate Hypothesis	Accept Null Hypothesis
PAIRED t TEST	There exists a significant difference between the risk and return perception of investors for schemes equity, debt, balanced and liquid.	There is no significant difference between the risk and return perception of investors for schemes index, asset, income and ELSS.
INTER-CORRELATION	Positive correlation There exists a fairly positive correlation among the factors time horizon, investment knowledge, toleration level, fall in the stock portfolio and fall in the bond portfolio	Negative correlation There exists negative correlation exists between the factors toleration level and bond portfolio loss.
CHI-SQUARE	There is significant association between investment knowledge and the toleration level of the investors.	-----
ONE WAY ANOVA	There exists significant difference between investors' age and safety, as the p-values for this variable is less than 0.05	Other profile variables don't make much difference to investors' mutual fund choosing decision.

Findings

- In UTI mutual fund, maximum 62% of respondents are in age group of 20-39yrs, the second most investors is 28% respondents are in age group of 40-59yrs, the third most investors is 7% respondents are in the age group of 60&above and people between 0-19 yrs of age are the one who invest least.
- Maximum numbers of investors for UTI mutual funds are businessman i.e. 31%. After that 30% people are private employees 10% are government employees 9% are housewife and 12% are other.
- The maximum investment is done by the investors who are less than 5 lakhs as income and this group constitutes around 68% of investors after that it is 24% of people whose income is 5 to 10 lakhs rest 8% of investment is done by the investors with income level between 10 to 25 lakhs.
- In UTI mutual fund, maximum of 38% of investors like to invest in the time span of 6-10 yrs, 37% of investors like to invest in time span of 2-5 yrs, 20% of investors like to invest for a short period of less than 2 yrs and rest like to invest for the time span of 11-15 and above 15 yrs.
- In UTI mutual fund maximum 39% of respondents willing to go for asset allocation of 40:60(debt: equity), 22% go for 50:50 ratio, 18% of them choose for 20:80 ratio, 14% choose for 25:75 and remain investors go for 75:25 and others.
- Maximum respondents of 100 are invested in mutual fund and few prefer to go for a combination of mutual funds and insurance, mutual fund and fixed deposit and mutual fund and gold.

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- In consideration on the objective of investment by investors 54 respondents have an objective to invest for children education, 48 respondents for house, 32 for the retirement benefit, and 15 of them do investment for children education as well as for house.
 - From the result of paired comparison between risk and return associated with various investment alternatives, it can be inferred that there exists a significant difference between the risk and return perception of investors for few funds as the p-value is less than .05 at 95% confidence interval. Also among 8 investment products 4 of the investment products mean difference is less than zero which signifies that for those investment alternatives the investors perceive higher risk involved than the return it gives.
 - From the result of inter-correlation among the five factors, it can be inferred that there exists a fairly positive correlation among the factors time horizon, investment knowledge, toleration level, fall in the stock portfolio and fall in the bond portfolio. Further, the highest positive correlation is between the factors bond portfolio loss and stock portfolio loss as their correlation value is comparatively the highest. The second highest correlation is between investment knowledge and toleration level. The negative correlation exists between the factors toleration level and bond portfolio loss.
 - From the result of Chi-square test between investment knowledge and the toleration level, it can be inferred that there is significant association between investment knowledge and the toleration level of the investors.
 - From the result of factor analysis of mutual fund selection, referring to the Eigen values it can be inferred that safety, liquidity, returns earned, tax earning, performance of past scheme and rating of mutual fund by agencies has a major impact on the investors in selecting a mutual fund since they are greater than the Eigen value 1. since KMO is $>.5$ and $p < .001$ the factor analysis is appropriate.
 - From the result of One Way ANOVA, it can be inferred that there exists significant difference between investors' age and safety, as the p-values for this variable is less than 0.05. In other words it can be said that investors' safeness in investment differs with their age. Other profile variables don't make much difference to investors' mutual fund choosing decision.

Suggestions

- Proper care should be taken to give the correct guidance to the investors so that they will invest more.
- Good campaigns can be arranged so that people will know more about Mutual Funds and will tend to invest in it.
- Nice advertisements can be entertained so that people will get interest in Mutual Funds.
- UTI Mutual Fund can come up with good, attractive schemes for its investors.
- Nowadays Indian Mutual fund Industry is attracting more and more retail investors because of economic stability and increasing growth rate, it leads to gradual increase in the stock market indices.
- Interest rates are falling gradually and mutual fund industry is booming because of this reason investors can move from Bank deposits to mutual funds so mutual fund organizations should bring new schemes to satisfy the investors.

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- Mutual fund schemes have not gained importance as there is a lack of awareness about Mutual fund schemes so the executives of the organization should take certain steps to educate the investors.

Scope for Future Research

The current study has selected the perception of only investors for studying the perception towards risk and return in UTI mutual funds. Further study can be done on the lifestyle and personality factor of the investors, comparative study of different fund holders, identifying the gap between the risk and return expectation and perception of investors'

The current study has opted for only one financial investment sector (i.e.) the Mutual Funds where as other investment areas like stock, fixed deposit, insurance, gold can be considered for future study.

Conclusions

Running a successful Mutual Fund requires complete understanding of the peculiarities of the Indian Stock Market and also the psyche of the investors. This study has made an attempt to understand the financial behavior of Mutual Fund investors in connection with their perception towards risk & return, Products, brands, safety etc. I observed that many of people have fear of Mutual Fund. They think their money will not be secure in Mutual Fund. They need the knowledge of Mutual Fund and its related terms. Many of people invest in mutual fund by the advice given by their financial advisors due to lack of knowledge in the field.

So once the investor gets a considerable knowledge about the investments they can manage their own portfolio and their perception towards risk & return in various scheme will be equal to their expectation.

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