# INVESTORS' PERCEPTION TOWARDS MUTUAL FUND: AN EMPIRICAL STUDY WITH REFERENCE TO COIMBATORE CITY

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#### **ABSTRACT**

The mutual fund industry in India has registered significant growth since the liberalization of Indian Economy in 1991 and has emerged as a significant financial intermediary. The growing importance of Indian mutual funds may be noted in terms of the increased mobilization of funds and the increasing number of schemes and investors in the industry. The results show that there is a significant association between educational qualification of the investors and the risk tolerance level and occupation of the investors and the risk tolerance level. The results further indicate that there is no significant association between occupation of the investors and the level of knowledge of mutual fund and monthly savings of the investors and the level of knowledge of mutual fund. Therefore, the investors have to consider the prevailing rate of risk free returns and to compare the fund returns with it. Based on this the selection of schemes and the choice of investment avenues can be decided. Due to the fund manager's poor risk bearing capacity, timing skill, stock selection ability, and imperfect diversification the schemes had suffered with low return. Hence to increase the fund return the concerned fund managers have to improve all these skills.

**Key Words:** Mutual funds – Investors' Perception – Risk Tolerance Level – Expected Return – Level of Knowledge of Mutual Fund - Confidence Level in Mutual Fund Investment.

#### INTRODUCTION

The economic reforms in the field of trade, commerce and industry have been introduced by the government of India to bring about the integration of the Indian economy with the global economy. Along with the growth of the Indian economy and the capital market, the investor size has also increased rapidly. The Indian capital market has experienced a remarkable development and changes in the past few years. New innovative financial instruments and institutions have emerged and have playing the role financial of intermediaries. Today the reduction in the interest rates by the government on different instruments, which considered for savings by the small investors, made the mutual fund industry play an important role. Hence the need and scope for mutual fund operation has increased tremendously.

The mutual fund industry in India has registered significant growth since the liberalization of Indian Economy in 1991 and has emerged as a significant financial intermediary. The growing importance of Indian mutual funds may be noted in terms of the increased mobilization of funds and

the increasing number of schemes and investors in the industry. To fulfill the expectations of millions of account holders, the mutual funds are required to function as successful institutional investors. Measuring the growth and evaluating the performance of mutual funds is important as well as a matter of concern to the fund managers, investors and researchers alike.

## NEED FOR THE STUDY

In India mutual fund mobilization has been on the increasing trend since its inception in 1963. In 1987 and 1989, mutual funds market was thrown open to private sector in India. Since 1993, the investment trend shifted in favour of private funds. The preference to the investment avenues like bank deposits, real estate, gold, provident fund and the like has come down especially due to fall in interest rates coupled with rising influence and mutual funds have obviously become a viable alternative. The total assets under management of the mutual fund industry worldwide had increased to around 180%, whereas the assets under management in the Indian mutual fund industry increased to around 1150% over the study period. Similarly the worldwide number of mutual

funds increased by 30.52% whereas the number of mutual funds in India increased by around 472% over the study period. Money so invested comes out of the hard earned savings of investors. It brings out the need for studying what the investors feel about mutual fund. A proper evaluation measure will remove the confusion and help investors to decide the choice of investment avenues and the level of investment in various mutual fund schemes. It also helps to understand their financial performance over a period of time, and the risk associated with their investment, so as to avoid loss and maximize the returns. The study covers a period of ten years.

#### REVIEW OF LITERATURE

Jaspal Singh and Subash Chander (2006) conducted a study on Investors preference for investments in mutual funds. Some 260 mutual fund investors were selected for the study. According to the preference of investors, the investment avenue were ranked as Gold first, followed by the NSC Schemes, and post office schemes. Mutual funds have been ranked at 5th place. Investors belonging to the salaried category and in the age group of 20-35 years preferred close - ended and equity oriented schemes more. Majority of the investors took their investment decision on the advice of brokers, professional and financial advisors. It was found that large number of respondents belonging to the salaried category and those in the age group of 35-50 years showed varied experiences as regards returns received from investments made in mutual funds.

Gajendra (2007) classified hundred mutual fund schemes by employing Cluster Analysis and using a host of criteria like the 1 year total return, 2 year annualized return, 3 year annualized return, 5 year annualized return, alpha, beta, R-squared, Sharpe's ratio, mean and standard deviation and the like. He found that evidences of inconsistencies between the investment style and the return obtained by the fund.

Martenson and Rita (2008) analysed gender difference for financial consumers and how the Swedish population has allocated their pension investments within the state pension systems as well as the results from a nationally representative sample of consumers. They found that there are less significant differences between expert men and women. Men are both profit oriented and more motivated to make financial investments than women are

**Sehgal and Sanjay (2009)** examined, if there was any short-term persistence in mutual funds' performance in the Indian context. They found that there was no evidence that confirmed persistence using monthly data. They concluded that efficient market hypothesis has implication for hedge funds and other managed portfolios.

Kaushik and Abhay (2010)investigated the performance of mutual funds that hold a small number of stocks in their portfolio. They found that average small holdings fund did not outperform the S&P 500 index. Winner portfolios outperformed the S& P composite index by 49.2 % per annum, whereas losers under performed by 38.4 % per annum over the same period.

#### Statement of the Problem

During the past four and a half decades, the Indian mutual fund industry has witnessed major transformation. It has grown several folds in terms of resource mobilization, number of mutual fund under schemes, assets management, number of investors and the range of products and services offered to the investors. With the entry of private sector and foreign mutual funds the industry has become far more competitive. The range of financial assets available to the house hold sector competes with each other for the attraction of small investors. They entice them to invest their funds by providing incentives and facilities in terms of flexible investment options and withdrawal plan. Each instrument has its own return, risk, liquidity and safety profile. Mutual Funds come into this category. Small investors cannot afford to own scripts of top companies to maximize their returns. It is a vague situation that develops a question in the minds of investors upon whom an average investor should rely or else, what should be the criteria to distinguish better

mutual funds from the others from the investment point of view. Despite the existence of mutual fund industry for over four and a half decades in India, the sample period of most of the studies was not a recent one as well as a short period. In some cases for the evaluation performances the sample size of schemes was too small. Moreover in recent years, mutual funds have taken initiative to improve investor services. While seeing the mobilization of resources by the mutual fund industry in the recent years, it appears that the investors have gained confidence in the industry. Hence an attempt was made to evaluate the growth and performance of mutual fund industry in India along with the behaviour of their returns and the risk associated with the funds.

#### **OBJECTIVES OF THE STUDY**

The overall objective of the study is to analyze the investors' perception towards mutual funds in Coimbatore City. The specific objectives of the study are stated below:

- 1. To evaluate the performance of selected mutual funds on the basis of risk return relationship and
- 2. To examine the retail investors' perceptions towards mutual funds with reference to Coimbatore city.

#### SCOPE OF THE STUDY

The present study includes the mutual fund schemes as on 1st April 1999 which have a history of five years in the industry. To analyze the growth and performance of mutual funds, this study uses all measures discussed in various studies. After the new thrust was given by passing off various regulations, investment mutual fund have become more important. The purpose of investment is to get a return or income in the funds invested in different financial assets. The financial assets are characterized with its size and variability of their future returns. In this study Cornish - Fisher model was used to estimate the risk involved in the mutual fund investment. Perception of retail investors, who are the most exploited lot in

the Indian capital market, regarding risk and return were studied.

#### **METHODOLOGY**

The methodology used for the study is described in this part. It includes period of study, sample design, data and their sources and data analysis. The main focus of the study is to analyze the growth and evaluate the performance of mutual fund industry in India, in the frame work of risk and return during study period. To analyze the perception of retail investors towards mutual funds their risk tolerance level, expected return, level of knowledge of mutual fund, confidence level in mutual fund investment, period of investment in mutual fund and downside risk they are ready to take while investing in mutual fund investment were collected. Interview Schedule was used to collect the required information. As no list of retail investors was available, a sample of 150 investors based on Quota Sampling was used to select the respondents. The share brokers, the UTI offices, the LIC agents and the Professionals were contacted to establish contact with general investors in and around Coimbatore city.

#### **Analysis and Interpretation of Data**

The data collected through the wellstructured questionnaire are analyzed and interpretation is made on the basis of such analysis are represented as below:

## Age Group and Risk Tolerance Level

More than 60% of the respondents who were in the age group of 25 years or below, have expressed that they have moderate risk tolerance level. Whereas the respondents in the age group of 26-35 years, about 30% of them have low risk tolerance level and around 57% of them has moderate risk tolerance level. The percentage of respondents who are in the low risk-tolerance level is more in the 45 years and above age group (35.7%). Also in the same age group only 46.4% have moderate risk tolerance level. percentage is lower when compared to other age groups. Similarly the percentage of respondents who have high risk tolerance level is higher (21.4%) in the age group of 25 years or below when compared to other age groups. So, this shows that as the age

increases more number of respondents like to take low risk.

Table 1: Age group and risk tolerance level

Age Group	Ri	Total		
	High Risk	Low Risk	Moderate Risk	Total
Upto 25 years	6 (4.29)	5 (8.4)	17 (9.29)	28
26 - 35 years	7 (8.28)	16 (16.2)	31 (29.52)	54
36 - 45 years	5 (6.13)	14 (12)	21 (21.86)	40
Above 45 years	5 (4.29)	10 (8.4)	13 (15.30)	28
Total	23	45	82	150

Source: Primary Data

(Figures given in the brackets represent the Expected Frequency)

**Null hypothesis:** The association between the age group of the respondents and the risk tolerance level is not significant.

As the calculated  $x^2$  value (3.862) is less than the table value (12.592) at 5% level of significance for 6 degrees of freedom, the null hypothesis is accepted and it could be concluded that the association between the age group of the respondents and the risk tolerance level is not significant.

#### Gender and Risk Tolerance Level

Among the female respondents, about 59% have expressed that they have moderate risk tolerance level. This percentage is marginally higher than the male respondents; about 54% of them have moderate risk tolerance level. The percentage of low risk tolerance level respondents is higher among males (35.9%) compared to female respondents (25.9%). So this shows that overall the proportion of respondents falling in the high, moderate and low risk tolerance levels are almost same for male and female respondents.

Table 2: Gender and risk tolerance level

	Risl				
Gender	Gender High Risk		Moderate Risk	Total	
Male	19 (18.86)	38 (36.9)	66 (67.24)	123	
Female	4 (4.14)	7 (8.1)	16 (14.76)	27	
Total	23	45	82	150	

Source: Primary Data

(Figures given in the brackets represent the Expected Frequency)

**Null hypothesis:** The association between the gender of the respondents and the risk tolerance level is not significant.

As the calculated  $x^2$  value (0.315) is less than the table value (5.991) at 5% level of significance for 2 degrees of freedom, the null hypothesis is accepted and it could be concluded that the association between the gender of the respondents and the risk tolerance level is not significant.

#### **Educational Qualification and Risk- Tolerance Level**

About 36% of the high school educated respondents are ready to take high risk, whereas under graduates and above are ready to take only moderate level of risk. The above analysis shows that there is high relationship between education and risk tolerance level.

Table 3: Educational qualification and risk - tolerance level

Educational Qualification	Risk - Tole	Total		
Educational Quantication	High Risk	Low Risk	Moderate Risk	Total
HSC	5 (2.14)	8 (4.2)	1 (7.65)	14
Under Graduate	8 (12.11)	28 (23.7)	43 (43.18)	79
Post Graduate	6 (3.13)	7 (12)	27 (21.87)	40
Professional	4 (2.61)	2 (5.1)	11 (9.29)	17
Total	23	45	82	150

(Figures given in the brackets represent the Expected Frequency)

**Null hypothesis:** The association between the educational qualification of the respondents and the risk tolerance level is not significant.

As the calculated  $x^2$  value (21.426) is greater than the table value (12.592) at 5% level of significance for 6 degrees of freedom, the null hypothesis is rejected and it could be concluded that the association between the educational qualification of the respondents and the risk tolerance level is significant.

#### Occupation and Risk Tolerance Level

From the above table it is seen that about 63% of the employed respondents are ready to take moderate risk. Self-employed investors (48%) are willing to take low risk only. Among professionals and retired investors, majority are ready to take only moderate level of risks. So the table shows that specific occupational groups take moderate risk and other groups take either high risk or low risk.

Table 4: Occupation and risk tolerance level

Occupation	Risk - Tolerance Level				
	High Risk	Low Risk	Moderate Risk	Total	
Employed	8 (9.81)	16 (19.2)	40 (34.98)	64	
Self Employed	3 (6.44)	20 (12.6)	19 (22.96)	42	
Professional	4 (2.60)	2 (5.19)	11 (9.29)	17	
Retired	2 (1.84)	4 (3.6)	6 (6.56)	12	
Others	6 (2.3)	3 (4.5)	6 (8.2)	15	
Total	23	45	82	150	

Source: Primary Data

(Figures given in the brackets represent the Expected Frequency)

**Null hypothesis:** The association between the occupation of the respondents and the risk tolerance level is not significant.

As the calculated  $x^2$  value (18.544) is greater than the table value (15.507) at 5% level of significance for 8 degrees of freedom, the null hypothesis is rejected and it could be concluded that the association between the occupation of the respondents and the risk tolerance level is significant.

#### Annual Income and Risk Tolerance Level

From the above table it is seen that Income wise, more than 50% of the respondents from all the categories of income are willing to take moderate level of risk. Except high income category, only very few are willing to take high risk in their investments. 30 to 35% of the respondents in the income category of below Rs.3 lakhs are willing to take low risk. So, the table shows that irrespective of the income, investors would like to take moderate risk.

Table 5: Annual income and risk - tolerance level

Annual Income	Risk - Tole	Total		
Annual Income	High Risk	Low Risk	Moderate Risk	Total
Less than Rs.1 lakh	7 (7.67)	15 (15)	28 (27.33)	50
Rs.1 – Rs.2 lakhs	11 (11.5)	24 (22.5)	40 (41)	<b>75</b>
Rs.2 - Rs.3 lakhs	2 (2.14)	5 (4.2)	7 (7.65)	14
More than Rs.3 lakhs	3 (1.68)	1 (3.3)	7 (6.01)	11
Total	23	45	82	150

(Figures given in the brackets represent the Expected Frequency)

**Null hypothesis:** The association between the annual income of the respondents and the risk tolerance level is not significant.

As the calculated  $x^2$  value (3.226) is less than the table value (12.592) at 5% level of significance for 6 degrees of freedom, the null hypothesis is accepted and it could be concluded that the association between the occupation of the respondents and the risk tolerance level is not significant.

#### Monthly Savings and Risk Tolerance Level

About 58% of the respondents, who are having a monthly savings of Rs.5,000 and above or Rs.2,000 and below are ready to assume moderate risk whereas among the respondents whose monthly savings is between Rs.2,001 and Rs.5,000 only 45% have moderate risk tolerance level. The low risk tolerance percentage is higher in the savings group (Rs.2,001 – Rs.5,000) is higher when compared to other saving groups. Majority of the respondents irrespective of their monthly savings would like to take only moderate level of risk tolerance. This shows that the proportion respondents falling under all risk tolerance levels are not related to monthly savings.

Table 6: Monthly savings and risk tolerance level

Monthly Savings	Risk - Tole	Total		
Monthly Savings	High Risk	Low Risk	Moderate Risk	Total
up to Rs.2,000	9 (12.11)	24 (23.7)	46 (43.18)	79
Rs.2,001 - Rs.5,000	8 (6.13)	14 (12)	18 (21.86)	40
Rs.5,001 – Rs.10,000	2 (2.91)	6 (5.7)	11 (10.38)	19
Above Rs.10,001	4 (1.84)	1 (3.6)	7 (6.56)	12
Total	23	45	82	150

Source: Primary Data

(Figures given in the brackets represent the Expected Frequency)

**Null hypothesis:** The association between the monthly savings of the respondents and the risk tolerance level is not significant.

As the calculated  $x^2$  value (7.354) is less than the table value (12.592) at 5% level of significance for 6 degrees of freedom, the null hypothesis is accepted and it could be concluded that the association between the monthly savings of the respondents and the risk tolerance level is not significant.

## Age Group and Expected Return

It is observed that irrespective of the age group the expected return for most of the investors are between 11 - 15% and 16 - 20%. Except 36 - 45 years age group around 40% in the remaining age groups expected a return of 11 - 15%. 35% in the age group 36 - 45 years and up to 25 years expected a return of 16 - 20%. The chi-square test does not show any

significant relationship between Age and Expected return. This shows that, most of the investors expected return between 11 - 15% and 16 - 20% irrespective of their age groups.

Table 7: Age group and expected return

Ago Caoua	Expected Return				
Age Group	5 - 10 %	11 - 15 %	16 - 20 %	More than 20 %	Total
Up to 25 years	1 (5.23)	10 (7.84)	10 (9.33)	7 (5.6)	28
26 - 35 years	10 (10.08)	15 (15.12)	21 (18)	8 (10.8)	54
36 - 45 years	11 (7.47)	14 (11.2)	7 (13.33)	8 (8)	40
Above 46 years	6 (5.22)	3 (7.84)	12 (9.33)	7 (5.6)	28
Total	28	42	50	30	150

Source: Primary Data

(Figures given in the brackets represent the Expected Frequency)

**Null hypothesis:** The association between the age group of the respondents and the expected return is not significant.

As the calculated  $x^2$  value (15.233) is less than the table value (16.919) at 5% level of significance for 9 degrees of freedom, the null hypothesis is accepted and it could be concluded that the association between the age group of the respondents and the expected return is not significant.

## Gender and Expected Return

Among the female respondents, around 25% and among the male respondents, around 35% expected a return of 11 - 15% whereas among female respondents, 18.5% in males and about 30% in males expected a return of 16 - 20%. The chi-square test conducted has not shown any significant relationship between Gender and Expected return. This shows that whether male or female respondents the rate of return falls between 11 - 15% and 16 - 20%.

Table 8: Gender and expected return

Gender	Expected Return				
5 - 10 %		11 - 15 %	16 – 20 %	More than 20 %	Total
Male	18 (22.96)	37 (34.44)	43 (41)	25 (24.6)	123
Female	10 (5.04)	5 (7.56)	7 (9)	5 (5.4)	27
Total	28	42	50	30	150

Source: Primary Data

(Figures given in the brackets represent the Expected Frequency)

**Null hypothesis:** The association between the gender of the respondents and the expected return is not significant.

As the calculated  $x^2$  value (7.588) is less than the table value (7.815) at 5% level of significance for 3 degrees of freedom, the null hypothesis is accepted and it could be concluded that the association between the gender of the respondents and the expected return is not significant.

#### **Educational Qualification and Expected Return**

The proportion of respondents expecting 11 - 15% and 16 - 20% returns are almost same from high school level to post graduate level. However about 43% of the respondents with high school level is expecting return of more than 20%. Among higher educated respondents under graduate and above, majority of them is expecting return of 16 - 20%. So the table shows that irrespective of the education level the expected return varies between 11 - 15% and 16 - 20%.

Table 9: Educational qualification and expected return

Educational	Expected	Expected Return				
Qualification	5 - 10 %	11 - 15 %	16 - 20 %	More than 20 %	Total	
HSC	4 (2.61)	2 (3.92)	2 (4.67)	6 (2.8)	14	
Under Graduate	15 (14.74)	24 (22.12)	26 (26.33)	14 (15.8)	79	
Post Graduate	6 (7.47)	14 (11.2)	14 (13.33)	6 (8)	40	
Professional	3 (3.17)	2 (4.76)	8 (5.67)	4 (3.4)	17	
Total	28	42	50	30	150	

(Figures given in the brackets represent the Expected Frequency)

**Null hypothesis:** The association between the educational qualification of the respondents and the expected return is not significant.

As the calculated  $x^2$  value (11.428) is less than the table value (16.919) at 5% level of significance for 9 degrees of freedom, the null hypothesis is accepted and it could be concluded that the association between the educational qualification of the respondents and the expected return is not significant.

#### Occupation and Expected Return

From the above table it is seen that about 42% of the employed respondents are expecting a return of 11 - 15% only. Among self-employed, professionals and retired respondents, majority of them are expecting 16 - 20% of interest. So the table shows that irrespective of the occupation expected return varies between 11 - 15% and 16 - 20%. The chi-square test applied to test the significant relationship between the expected return and occupation of the respondent has not shown a significant relationship at 5% level.

Table 10: Occupation and expected return

Occumation	Expected Return				
Occupation	5 - 10 %	11 - 15 %	16 - 20 %	More than 20 %	Total
Employed	8 (11.94)	27 (17.92)	23 (21.33)	6 (12.8)	64
Self Employed	10 (7.84)	8 (11.76)	12 (14)	12 (8.4)	42
Professional	3 (3.17)	2 (4.76)	8 (5.67)	4 (3.4)	17
Retired	3 (2.24)	0 (3.36)	6 (4)	3 (2.4)	12
Others	4 (2.8)	5 (4.2)	1 (5)	5 (3)	15
Total	28	42	50	30	150

Source: Primary Data

(Figures given in the brackets represent the Expected Frequency)

**Null hypothesis:** The association between the occupation of the respondents and the expected return is not significant.

As the calculated  $x^2$  value (25.917) is less than the table value (21.026) at 5% level of significance for 12 degrees of freedom, the null hypothesis is accepted and it could be concluded that the association between the occupation of the respondents and the expected return is not significant.

#### **Annual Income and Expected Return**

Income wise 40% of the investors who are earning less than Rs.1 lakh are expecting 11 - 15% interest. 46% of the respondents whose annual income is more than Rs.3 lakhs are expecting more than 20% of interest. Around 27 - 37% of the respondents in all income

categories are expecting 16 - 20% of interest. So the above analysis shows that for the various levels of income groups the expected return varies between 11 - 15% and 16 - 20%.

Table 11: Annual incomes and expected return

Annual Income	Expected Return				Total
	5 - 10 %	11 - 15 %	16 - 20 %	More than 20 %	Total
Less than Rs.1 lakh	6 (9.33)	20 (14)	15 (16.67)	9 (10)	50
Rs.1 - Rs.2 lakhs	18 (14)	16 (21)	28 (25)	13 (15)	75
Rs.2 – Rs.3 lakhs	3 (2.61)	4 (3.92)	4 (4.67)	3 (2.8)	14
More than Rs.3 lakhs	1 (2.05)	2 (3.08)	3 (3.67)	5 (2.2)	11
Total	28	42	50	30	150

Source: Primary Data

(Figures given in the brackets represent the Expected Frequency)

**Null hypothesis:** The association between the annual income of the respondents and the expected return is not significant.

As the calculated  $x^2$  value (11.761) is less than the table value (16.919) at 5% level of significance for 9 degrees of freedom, the null hypothesis is accepted and it could be concluded that the association between the annual income of the respondents and the expected return is not significant.

## **Monthly Savings and Expected Return**

Between 30 - 40% the respondents in all the savings category except Rs.5,001 - Rs.10,000 expected a return of 11 - 15% whereas nearly 37% of the respondents in this category i.e. Rs.5,001 - Rs.10,000 category expected a return of 16 - 20% The shows that monthly savings varied between 11 - 15% and 16 - 20% irrespective of monthly savings of investors.

Table 12: Monthly savings and expected return

Monthly Savings	Expected Return				
	5 - 10 %	11 - 15 %	16 - 20 %	More than 20 %	Total
Upto Rs.2,000	18 (14.74)	23 (22.12)	29 (26.33)	9 (15.8)	79
Rs.2,001 - Rs.5,000	5 (7.46)	10 (11.12)	12 (13.33)	13 (8)	40
Rs.5,001 – Rs.10,000	3 (3.54)	7 (5.32)	4 (6.33)	5 (3.8)	19
Above Rs.10,001	2 (2.24)	2 (3.36)	5 (4)	3 (2.4)	12
Total	28	42	50	30	150

Source: Primary Data

(Figures given in the brackets represent the Expected Frequency)

**Null hypothesis:** The association between the monthly savings of the respondents and the expected return is not significant.

As the calculated  $x^2$  value (10.981) is less than the table value (16.919) at 5% level of significance for 9 degrees of freedom, the null hypothesis is accepted and it could be concluded that the association between the monthly savings of the respondents and the expected return is not significant.

## Age Group and Level of Knowledge of Mutual Fund

About 50% of the respondents in the age group 25 years and below and 36 to 45 years have average level of knowledge. More than 20% in the above 45 years age group have poor knowledge of the mutual fund. 35% of the respondents in the age group 26 - 35 years have good knowledge of mutual funds. So this shows that irrespective of age, level of knowledge of mutual fund is between average and good for most of the investors.

Table 13: Age group and level of knowledge of mutual fund

Ago Caoua	Level of Knowledge of Mutual Fund					
Age Group	Very Good	Good	Average	Poor	Total	
Up to 25 years	5 (3.17)	8 (3.14)	14 (13.25)	1 (2.42)	28	
26 - 35 years	5 (6.12)	19 (17.64)	26 (25.56)	4 (4.68)	54	
36 - 45 years	6 (4.53)	11 (13.17)	21 (18.93)	2 (3.46)	40	
Above 46 years	1 (3.17)	11 (9.14)	10 (13.25)	6 (2.42)	28	
Total	17	49	71	13	150	

(Figures given in the brackets represent the Expected Frequency)

**Null hypothesis:** The association between the age group of the respondents and the level of knowledge of mutual fund is not significant.

As the calculated  $x^2$  value (12.064) is less than the table value (16.919) at 5% level of significance for 9 degrees of freedom, the null hypothesis is accepted and it could be concluded that the association between the age group of the respondents and the level of knowledge of mutual fund is not significant.

## Gender and Level of Knowledge of Mutual Fund

Significant relationship is found between the gender and the level of knowledge of mutual fund. More than 45% of the female respondents have good or very good knowledge of mutual fund where as 50% of the female respondents have average level of knowledge of mutual funds. Only around 6% of the male respondents have poor knowledge of mutual funds.

Table 14: Gender and level of knowledge of mutual fund

Candan	Level of Knowledge of Mutual Fund					
Gender	Very Good	Good	Average	Poor	Total	
Male	11 (13.96)	42 (40.18)	62 (58.22)	8 (10.66)	123	
Female	6 (3.06)	7 (8.82)	9 (12.78)	5 (2.34)	27	
Total	17	49	71	13	150	

Source: Primary Data

(Figures given in the brackets represent the Expected Frequency)

**Null hypothesis:** The association between the gender of the respondents and the level of knowledge of mutual fund is not significant.

As the calculated  $x^2$  value (8.954) is greater than the table value (7.815) at 5% level of significance for 3 degrees of freedom, the null hypothesis is rejected and it could be concluded that the association between the gender of the respondents and the level of knowledge of mutual fund is significant.

#### Educational Qualification and Level of Knowledge of Mutual Fund

More than 40% of the respondents in all the categories have accepted that they have average level of knowledge of mutual fund. Except high school level educated respondents, very few accepted that they have poor knowledge of mutual fund. So, the above analysis shows that irrespective of the education, most of the investors have average to good knowledge of mutual fund.

Table 15: Educational qualification and level of knowledge of mutual fund ducational Level of Knowledge of Mutual Fund

Educational	Level of Knowledge of Mutual Fund				
Qualification	Very Good	Good	Average	Poor	Total
HSC	1 (1.58)	4 (4.57)	9 (6.62)	0 (1.21)	14
Under Graduate	10 (8.95)	27 (25.80)	32 (37.39)	10 (6.84)	79
Post Graduate	5 (4.53)	14 (13.17)	19 (18.93)	2 (3.46)	40
Professional	1 (1.92)	4 (5.53)	11 (8.04)	1 (1.47)	17
Total	17	49	71	13	150

(Figures given in the brackets represent the Expected Frequency)

**Null hypothesis:** The association between the educational qualification of the respondents and the level of knowledge of mutual fund is not significant.

As the calculated  $x^2$  value (7.612) is less than the table value (16.919) at 5% level of significance for 9 degrees of freedom, the null hypothesis is accepted and it could be concluded that the association between the educational qualification of the respondents and the level of knowledge of mutual fund is not significant.

#### Occupation and Level of Knowledge of Mutual Fund

Among employed and self-employed around 36% and 50% of the investors have good knowledge of mutual fund respectively. Nearly 65% of professionals have reported average knowledge of mutual fund. Among the retired, around 67% have told that they had good knowledge of mutual fund. So it was found that based on occupation the level of knowledge varies among the investors.

Table 16: Occupation and level of knowledge of mutual fund

Occumation	Level of Knowledge of Mutual Fund					
Occupation	Very Good	Good	Average	Poor	Total	
Employed	8 (7.25)	23 (20.91)	30 (30.29)	3 (5.54)	64	
Self Employed	6 (4.76)	12 (13.72)	21 (19.88)	3 (3.64)	42	
Professional	1 (1.92)	4 (5.53)	11 (8.04)	1 (1.47)	17	
Retired	1 (1.36)	8 (3.92)	2 (5.68)	1 (1.04)	12	
Others	1 (1.7)	2 (4.9)	7 (7.1)	5 (1.3)	15	
Total	17	49	71	13	150	

Source: Primary Data

(Figures given in the brackets represent the Expected Frequency)

**Null hypothesis:** The association between the occupation of the respondents and the level of knowledge of mutual fund is not significant.

As the calculated  $x^2$  value (25.553) is greater than the table value (21.026) at 5% level of significance for 12 degrees of freedom, the null hypothesis is rejected and it could be concluded that the association between the occupation of the respondents and the level of knowledge of mutual fund is significant.

#### Annual Income and Level of Knowledge of Mutual Fund

Around 60% of the investors have average knowledge in the Rs.3 lakhs and above income group as well as less than Rs.1 lakh income group. But, more than 50% of the investors have good or very good knowledge of mutual fund in Rs.1 - 2 lakhs income category. More than 70% of the investors have average to poor knowledge of mutual fund in Rs.2 - 3 lakhs income group. This shows that respondents with the different income levels have varied levels of knowledge of mutual fund.

Table 17: Annual income and level of knowledge of mutual fund

Annual Income	Level of Knowledge of Mutual Fund				
Annual income	Very Good	Good	Average	Poor	Total
Less than Rs.1 Lakh	5 (5.67)	12 (16.33)	29 (23.67)	4 (4.33)	50
Rs.1 – 2 Lakhs	10 (8.5)	31 (24.50)	29 (35.5)	5 (6.5)	75
Rs.2 – 3 Lakhs	0 (1.59)	4 (4.57)	6 (6.62)	4 (1.21)	14
More than Rs.3 Lakhs	2 (1.24)	2 (3.59)	7 (5.20)	0 (0.95)	11
Total	17	49	71	13	150

(Figures given in the brackets represent the Expected Frequency)

**Null hypothesis:** The association between the annual income of the respondents and the level of knowledge of mutual fund is not significant.

As the calculated  $x^2$  value (16.832) is less than the table value (16.919) at 5% level of significance for 9 degrees of freedom, the null hypothesis is accepted and it could be concluded that the association between the annual income of the respondents and the level of knowledge of mutual fund is not significant.

## Monthly Savings and Level of Knowledge of Mutual Fund

Majority (75%) of the respondents in the Rs.10,000 and above savings group have good or very good knowledge of mutual fund. Nearly 80% of the respondents in the Rs.5,001 – Rs.10,000 savings group have average knowledge of mutual fund. Except above Rs.10,000 savings group nearly 10% of the respondents in the remaining savings group have poor knowledge of mutual fund. So this shows that when monthly savings are more, the level of knowledge of mutual fund is also more.

Table 18: Monthly savings and level of knowledge of mutual fund

Monthly Savings	Level of Knowledge of Mutual Fund					
Monthly Savings	Very Good	Good	Average	Poor	Total	
Upto Rs.2,000	6 (8.95)	30 (25.80)	36 (37.39)	7 (6.84)	79	
Rs.2,001 - Rs.5,000	8 (4.53)	11 (13.16)	17 (18.93)	4 (3.47)	40	
Rs.5,001 - Rs.10,000	1 (2.15)	1 (6.20)	15 (8.99)	2 (1.64)	19	
Above Rs.10,001	2 (1.36)	7 (3.92)	3 (5.68)	0 (1.04)	12	
Total	17	49	71	13	150	

Source: Primary Data

(Figures given in the brackets represent the Expected Frequency)

**Null hypothesis:** The association between the monthly savings of the respondents and the level of knowledge of mutual fund is not significant.

As the calculated  $x^2$  value (19.067) is greater than the table value (16.919) at 5% level of significance for 9 degrees of freedom, the null hypothesis is rejected and it could be concluded that the association between the monthly savings of the respondents and the level of knowledge of mutual fund is significant.

#### Age Group and Confidence Level in Mutual Fund Investment

Around 60% and nearly 57% of the respondents have moderate level of confidence in the age groups 36 - 45 years and above 46 years respectively. Nearly 50% of the respondents and around 40% of the respondents in the age groups up to 25 years and 26 - 35 years have high level of confidence in the mutual fund. This shows that majority of the respondents in all age group the level of confidence in the mutual fund is moderate to high.

Table 19: Age group and confidence level in mutual fund investment

Ago Group	Confidence Level in Mutual Fund Investment					
Age Group	Very High	High	Moderate	Low	Total	
Upto 25 years	4 (2.05)	14 (10.08)	10 (14)	0 (1.87)	28	
26 – 35 years	4 (3.96)	21 (19.44)	25 (27)	4 (3.6)	54	
36 – 45 years	1 (2.93)	12 (14.4)	24 (20)	3 (2.67)	40	
Above 46 years	2 (2.05)	7 (10.08)	16 (14)	3 (1.87)	28	
Total	11	54	75	10	150	

(Figures given in the brackets represent the Expected Frequency)

**Null hypothesis:** The association between the age group of the respondents and the confidence level in mutual fund investment is not significant.

As the calculated  $x^2$  value (11.130) is less than the table value (16.919) at 5% level of significance for 9 degrees of freedom, the null hypothesis is accepted and it could be concluded that the association between the age group of the respondents and the confidence level in mutual fund investment is not significant.

#### Gender and Confidence Level in Mutual Fund Investment

About 50% of the female respondents and about 40% of the male respondents have high or very high confidence in the mutual fund investment. About 50% of the male respondents have moderate confidence. This shows that for most of the investors from male and female respondents, the level of confidence in mutual fund is varied between moderate to high.

Table 20: Gender and confidence level in mutual fund investment

Gender Confidence Level in Mutual Fund Investment						
Gender	Very High	High	Moderate	Low	Total	
Male	8 (9.02)	43 (44.28)	63 (61.5)	9 (8.2)	123	
Female	3 (1.98)	11 (9.72)	12 (13.5)	1 (1.8)	27	
Total	11	54	75	10	150	

Source: Primary Data

(Figures given in the brackets represent the Expected Frequency)

**Null hypothesis:** The association between the gender of the respondents and the confidence level in mutual fund investment is not significant.

As the calculated  $x^2$  value (1.483) is less than the table value (7.815) at 5% level of significance for 3 degrees of freedom, the null hypothesis is accepted and it could be concluded that the association between the gender of the respondents and the confidence level in mutual fund investment is not significant.

#### **Educational Qualification and Confidence Level in Mutual Fund Investment**

Only very few from high school to professional level of education have responded that they have very high confidence in the mutual fund investment. Majority of the investors said that they have moderate level of confidence in the mutual fund investment. Only in post graduate and professional level 50% of the investors said that their level of confidence in mutual fund is moderate. So this shows that irrespective of the educational qualification the confidence level varies between moderate to high for majority of the respondents.

Table 21: Educational qualification and confidence level in mutual fund investment

Educational Qualification	Confidence Investment		in Mutu	al Fund	Total
Quannication	Very High	High	Moderate	Low	
HSC	1 (1.02)	6 (5.04)	6 (7)	1 (0.93)	14
Under Graduate	5 (5.79)	33 (28.44)	37 (39.5)	4 (5.27)	79
Post Graduate	5 (2.93)	9 (14.4)	22 (20)	4 (2.67)	40
Professional	0 (1.25)	6 (6.12)	10 (8.5)	1 (1.13)	17
Total	11	54	75	10	150

(Figures given in the brackets represent the Expected Frequency)

**Null hypothesis:** The association between the educational qualification of the respondents and the confidence level in mutual fund investment is not significant.

As the calculated  $x^2$  value (7.511) is less than the table value (16.919) at 5% level of significance for 9 degrees of freedom, the null hypothesis is accepted and it could be concluded that the association between the educational qualification of the respondents and the confidence level in mutual fund investment is not significant.

#### Occupation and Confidence Level in Mutual Fund Investment

The percentage of respondents having moderate level of confidence is high in all the categories of occupation except others. So this shows that majority of the respondents irrespective of occupation type have moderate level of confidence.

Table 22: Occupation and confidence level in mutual fund investment

1 4 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1							
Occumation	Confidence Level in Mutual Fund Investment						
Occupation	Very High	High	Moderate	Low	Total		
Employed	4 (4.69)	22 (23.04)	33 (32)	5 (4.27)	64		
Self Employed	7 (3.08)	15 (15.12)	19 (21)	1 (2.8)	42		
Professional	0 (1.25)	6 (6.12)	10 (8.5)	1 (1.13)	17		
Retired	0 (0.88)	4 (4.32)	8 (6)	0 (0.8)	12		
Others	0 (1.1)	7 (5.4)	5 (7.5)	3 (1)	15		
Total	11	54	75	10	150		

Source: Primary Data

(Figures given in the brackets represent the Expected Frequency)

**Null hypothesis:** The association between the occupation of the respondents and the confidence level in mutual fund investment is not significant.

As the calculated  $x^2$  value (16.952) is less than the table value (21.026) at 5% level of significance for 12 degrees of freedom, the null hypothesis is accepted and it could be concluded that the association between the occupation of the respondents and the confidence level in mutual fund investment is not significant.

## Annual Income and Confidence Level in the Mutual Fund Investment

Except the investors whose income is from Rs.2 – Rs.3 lakhs, more than 50% of the investors from rest of the income groups have moderate level of confidence in the mutual fund investment. Not many investors said that their confidence level in the mutual fund investment is high. So this shows that for majority of the investors the confidence level in the mutual fund investment is neither low nor very high.

Table 23: Annual income and confidence level in the mutual fund investment

Annual Income	Confidence Investment		in Mut	ual Fund	Total
	Very High	High	Moderate	Low	
Less than Rs.1 Lakh	2 (3.67)	19 (18)	25 (25)	4 (3.33)	50
Rs.1 - 2 Lakhs	8 (5.5)	24 (27)	39 (37.5)	4 (5)	75
Rs.2 - 3 Lakhs	1 (1.02)	6 (5.04)	5 (7)	2 (0.93)	14
More than Rs.3 Lakhs	0 (0.80)	5 (3.96)	6 (5.5)	0 (0.73)	11
Total	11	54	75	10	150

(Figures given in the brackets represent the Expected Frequency)

**Null hypothesis:** The association between the annual income of the respondents and the confidence level in mutual fund investment is not significant.

As the calculated  $x^2$  value (6.509) is less than the table value (16.919) at 5% level of significance for 9 degrees of freedom, the null hypothesis is accepted and it could be concluded that the association between the annual income of the respondents and the confidence level in mutual fund investment is not significant.

## Monthly Savings and Confidence Level in Mutual Fund Investment

Majority (75%) of the respondents in the Rs.10,000 and above savings group have moderate level of confidence in the mutual fund. This shows that almost in all savings groups most of the respondents have moderate to high level of confidence in mutual fund.

Table 24: Monthly savings and confidence level in mutual fund investment

Monthly Savings	Confidence Level in Mutual Fund Investment				
Monthly Savings	Very High	High	Moderate	Low	Total
Upto Rs.2,000	4 (5.79)	34 (28.44)	37 (39.5)	4 (5.26)	79
Rs.2,001 - Rs.5,000	5 (2.93)	13 (14.4)	20 (20)	2 (2.67)	40
Rs.5,001 - Rs.10,000	2 (1.39)	4 (6.84)	9 (9.5)	4 (1.26)	19
Above Rs.10,001	0 (0.88)	3 (4.32)	9 (6)	0 (0.8)	12
Total	11	54	75	10	150

Source: Primary Data

(Figures given in the brackets represent the Expected Frequency)

**Null hypothesis:** The association between the monthly savings of the respondents and the confidence level in mutual fund investment is not significant.

As the calculated  $x^2$  value (14.815) is less than the table value (16.919) at 5% level of significance for 9 degrees of freedom, the null hypothesis is accepted and it could be concluded that the association between the monthly savings of the respondents and the confidence level in mutual fund investment is not significant.

## Age Group and Period of Investment in Mutual Fund

More than 55% of the respondents in the 25 years and below age group and above 46 years age group invest for a period of 1-3 years. Around 20% in 26 - 35 years and around 30% in 36 - 45 years invest for more than 5 years. This shows that most of the investors invest either up to 1 year or 1 - 3 years irrespective of their age groups.

Table 25: Age group and period of investment in mutual fund

Age Group	Period for Investment in Mutual Fund				
Age Group	Upto 1 year	1 – 3 years	3 – 5 years	Above 5 years	Total
Upto 25 years	4 (5.78)	16 (12.69)	6 (4.29)	2 (5.22)	28
26 – 35 years	10 (11.16)	24 (24.48)	9 (8.28)	11 (10.08)	54
36 – 45 years	10 (8.26)	12 (18.13)	5 (6.13)	13 (7.47)	40
Above 46 years	7 (5.78)	16 (12.69)	3 (4.29)	2 (5.22)	28
Total	31	68	23	28	150

(Figures given in the brackets represent the Expected Frequency)

**Null hypothesis:** The association between the age group of the respondents and the period of investment in mutual fund investment is not significant.

As the calculated  $x^2$  value (14.605) is less than the table value (16.919) at 5% level of significance for 9 degrees of freedom, the null hypothesis is accepted and it could be concluded that the association between the age group of the respondents and the period of investment in mutual fund investment is not significant.

#### Gender and Period of Investment in Mutual Fund

Gender wise, around 25% of the female respondents invest either 3 - 5 years or more than 5 years. Among male, majority of them (48%) invest for a period of 1 - 3 years. Due to less representation of the sample investors the chi-square test applied has not shown any significant relationship between period of investment and gender.

Table 26: Gender and period of investment in mutual fund

Gender Period for Investment in Mutual Fund					
Gender	Upto 1 year	1 - 3 years	3 – 5 years	Above 5 years	Total
Male	27 (25.42)	59 (55.76)	16 (18.86)	21 (22.96)	123
Female	4 (5.58)	9 (12.24)	7 (4.14)	7 (5.04)	27
Total	31	68	23	28	150

Source: Primary Data

(Figures given in the brackets represent the Expected Frequency)

**Null hypothesis:** The association between the gender of the respondents and the period of investment in mutual fund investment is not significant.

As the calculated  $x^2$  value (4.930) is less than the table value (7.815) at 5% level of significance for 3 degrees of freedom, the null hypothesis is accepted and it could be concluded that the association between the gender of the respondents and the period of investment in mutual fund investment is not significant.

#### Educational Qualification and Period of Investment in Mutual Fund

Regarding period of investment in mutual fund, majority of the investors said that they would keep their investment in mutual fund from 1 year to 3 years. Investors who are qualified with under graduate level said that they keep their investment in mutual fund for above 5 years. So, this shows that educational level and period of investment in mutual fund do not have any relationship.

Table 27: Educational qualification and period of investment in mutual fund

Educational	Period for Investment in Mutual Fund				
Qualification	Upto 1 year	1 - 3 years	3 – 5 years	Above 5 years	Total
HSC	7 (2.89)	4 (6.34)	1 (2.14)	2 (2.61)	14
Under Graduate	15 (16.32)	38 (35.81)	12 (12.11)	14 (14.74)	79
Post Graduate	5 (8.26)	18 (18.13)	6 (6.13)	11 (7.46)	40
Professional	4 (3.51)	8 (7.70)	4 (2.60)	1 (3.17)	17
Total	31	68	23	28	150

(Figures given in the brackets represent the Expected Frequency)

**Null hypothesis:** The association between the educational qualification of the respondents and the period of investment in mutual fund investment is not significant.

As the calculated  $x^2$  value (13.012) is less than the table value (16.919) at 5% level of significance for 9 degrees of freedom, the null hypothesis is accepted and it could be concluded that the association between the educational qualification of the respondents and the period of investment in mutual fund investment is not significant.

## Occupation and Period of Investment in Mutual Fund

Among the surveyed investors 58% of the retired people prefer to invest their money in mutual fund for the period from 1 year to 3 years. Majority of the other respondents who come under employed, self-employed and professionals also would like to invest in mutual fund for 1 to 3 years. Only very few investors prefer to invest for 3 – 5 years. So this shows that for majority of the respondents in all types of occupations the period of investment varies between 1 to 3 years.

Table 28: Occupation and period of investment in mutual fund

Occumation	Period for Investment in Mutual Fund					
Occupation	Upto 1 year	1 – 3 years	3 – 5 years	Above 5 years	Total	
Employed	14 (13.22)	26 (29.01)	9 (9.81)	15 (11.94)	64	
Self	7 (8.68)	19 (19.04)	8 (6.44)	8 (7.84)	42	
Employed	7 (0.00)	19 (19.04)	0 (0.44)	0 (7.04)	44	
Professional	4 (3.51)	8 (7.70)	4 (2.60)	1 (3.17)	17	
Retired	4 (0.41)	7 (0.90)	0 (0.30)	1 (0.37)	2	
Others	2 (3.1)	8 (6.8)	2 (2.3)	3 (2.8)	15	
Total	31	68	23	28	150	

Source: Primary Data

(Figures given in the brackets represent the Expected Frequency)

**Null hypothesis:** The association between the occupation of the respondents and the period of investment in mutual fund investment is not significant.

As the calculated  $x^2$  value (8.785) is less than the table value (21.026) at 5% level of significance for 12 degrees of freedom, the null hypothesis is accepted and it could be concluded that the association between the occupation of the respondents and the period of investment in mutual fund investment is not significant.

#### Annual Income and Period of Investment in Mutual Fund

Chi-square test applied has not shown any significant relationship between period of investment in mutual fund and annual income. Nearly 40 - 50% of the respondents in all

income category except more than Rs.3 lakhs income group would prefer to invest for a period of 1 - 3 years. So this shows that among different levels of income groups the proportion of respondents who are investing for various periods from up to 1 year to above 5 years does not very much.

Table 29: Annual income and period of investment in mutual fund

Annual Income	Period for Investment in Mutual Fund				
Annual Income	Upto 1 year	1 - 3 years	3 – 5 years	Above 5 years	Total
Less than Rs.1 Lakh	13 (10.33)	23 (22.67)	7 (7.67)	7 (9.33)	50
Rs.1 – 2 Lakhs	15 (15.5)	37 (34)	9 (11.5)	14 (14)	75
Rs.2 – 3 Lakhs	2 (2.89)	6 (6.34)	2 (2.14)	4 (2.61)	14
More than Rs.3 Lakhs	1 (2.27)	2 (4.98)	5 (1.68)	3 (2.05)	11
Total	31	68	23	28	150

Source: Primary Data

(Figures given in the brackets represent the Expected Frequency)

**Null hypothesis:** The association between the annual income of the respondents and the period of investment in mutual fund investment is not significant.

As the calculated  $x^2$  value (12.647) is less than the table value (16.919) at 5% level of significance for 9 degrees of freedom, the null hypothesis is accepted and it could be concluded that the association between the annual income of the respondents and the period of investment in mutual fund investment is not significant.

#### Monthly Savings and Period of Investment in Mutual Fund

Nearly 45% of the respondents who save Rs.10,000 or below invest for a period of 1 to 3 years. Around 10 to 15% in all saving groups invest for a period of 3 - 5 years. Above 30% in the Rs.10,000 and above savings group invest for more than 5 years. This shows that proportion of respondents who invest for different time period is almost same among the different categories of monthly savings.

Table 30: Monthly savings and period of investment in mutual fund

Monthly Savings	Period for Investment in Mutual Fund				
Monthly Savings	Upto 1 year	1 - 3 years	3 – 5 years	Above 5 years	Total
Upto Rs.2,000	18 (16.32)	38 (35.81)	13 (12.11)	10 (14.74)	79
Rs.2,001 - Rs.5,000	6 (8.27)	18 (18.13)	6 (6.13)	10 (7.47)	40
Rs.5,001 - Rs.10,000	4 (3.92)	9 (8.61)	2 (2.91)	4 (3.54)	19
Rs.10,001 and above	3 (2.48)	3 (5.44)	2 (1.84)	4 (2.24)	12
Total	31	68	23	28	150

Source: Primary Data

(Figures given in the brackets represent the Expected Frequency)

**Null hypothesis:** The association between the monthly savings of the respondents and the period of investment in mutual fund investment is not significant.

As the calculated  $x^2$  value (6.346) is less than the table value (16.919) at 5% level of significance for 9 degrees of freedom, the null hypothesis is accepted and it could be concluded that the association between the monthly savings of the respondents and the period of investment in mutual fund investment is not significant.

## Age Group and Downside Risk Ready to Take While Investing in Mutual Fund

Irrespective of the age, majority of the respondents (more than 80%) are ready to take a maximum of 2% risk only. Around 50 - 60% of the respondents in the age groups upto 25

years and 26 - 35 years are ready to take a downside risk of less than 1%. Nearly 35% in 36 - 45 years and nearly 43% in above 46 years are ready to take a downside risk of 1 - 2%. This shows that irrespective of the age group, majority of the respondents would take a downside risk of less than 1% or 1 - 2%.

Table 31: Age group and downside risk ready to take while investing in mutual fund

	Downside Risk Ready to Take While Investing in					
Age Group	Mutual Fund					
	Less than 1%	1% - 2%	2% - 3%	3% - 5%		
Upto 25 years	15 (14.56)	9 (9.14)	1 (2.05)	3 (2.24)	28	
26 – 35 years	33 (28.08)	14 (17.64)	3 (3.96)	4 (4.32)	54	
36 – 45 years	18 (20.8)	14 (13.06)	6 (2.93)	2 (3.2)	40	
Above 46 years	12 (14.56)	12 (9.14)	1 (2.05)	3 (2.24)	28	
Total	78	49	11	12	150	

Source: Primary Data

(Figures given in the brackets represent the Expected Frequency)

**Null hypothesis:** The association between the age group of the respondents and the downside risk ready to take while investing in mutual fund is not significant.

As the calculated  $x^2$  value (8.922) is less than the table value (16.919) at 5% level of significance for 9 degrees of freedom, the null hypothesis is accepted and it could be concluded that the association between the age group of the respondents and the downside risk ready to take while investing in mutual fund is not significant.

## Gender and Downside Risk Ready to Take While Investing in Mutual Fund

Whether male or female, majority of them are ready to take a maximum of 2% risk only. Around 50% of the respondents in male category and female category are ready to take a downside risk of less than 1%. Just above 30% of the respondents in males and females are ready to take a downside risk of 1 - 2%. This shows that irrespective of gender the majority of the investors are ready to take a maximum downside risk of 2%.

Table 32: Gender and downside risk ready to take while investing in mutual fund

Downside Risk Ready to Take While Investing in Mutual Fund						
Gender	Less than 1%	1% - 2%	2% - 3%	3% - 5%	Total	
Male	65 (63.96)	40 (40.18)	9 (9.02)	9 (9.84)	123	
Female	13 (14.04)	9 (8.82)	2 (1.98)	3 (2.16)	27	
Total	78	49	11	12	150	

Source: Primary Data

(Figures given in the brackets represent the Expected Frequency)

**Null hypothesis:** The association between the gender of the respondents and the downside risk ready to take while investing in mutual fund is not significant.

As the calculated  $x^2$  value (0.497) is less than the table value (7.815) at 5% level of significance for 3 degrees of freedom, the null hypothesis is accepted and it could be concluded that the association between the gender of the respondents and the downside risk ready to take while investing in mutual fund is not significant.

## Educational Qualification and Downside Risk Ready to Take While Investing in Mutual Fund

Majority (71.4%) of the high school level educated investors are ready to take 1-2% downside risk. Investors are under graduate level 56%, post graduate level 63% and professionals 41% prefer to take down side risk at less than 1%. Only very few investors from all category are ready to take downside risk from 2 to 5%. So this shows that majority of the respondents would like to take downside risk of either 1-2% or less than 1%.

Table 33: Educational qualification and downside risk ready to take while investing in mutual fund

Educational	Downside Risk Ready to Take While Investing in Mutual Fund				
Qualification	Less than 1%	1% - 2%	2% - 3%	3% - 5%	Total
HSC	2 (7.28)	10 (4.57)	1 (1.02)	1 (1.12)	14
Under Graduate	44 (41.08)	25 (25.80)	4 (5.79)	6 (6.32)	79
Post Graduate	25 (20.8)	8 (13.17)	4 (2.93)	3 (3.2)	40
Professional	7 (8.84)	6 (5.53)	2 (1.24)	2 (1.36)	17
Total	78	49	11	12	150

Source: Primary Data

(Figures given in the brackets represent the Expected Frequency)

**Null hypothesis:** The association between the educational qualification of the respondents and the downside risk ready to take while investing in mutual fund is not significant.

As the calculated  $x^2$  value (15.475) is less than the table value (16.919) at 5% level of significance for 9 degrees of freedom, the null hypothesis is accepted and it could be concluded that the association between the educational qualification of the respondents and the downside risk ready to take while investing in mutual fund is not significant.

#### Occupation and Downside Risk Ready to Take While Investing in Mutual Fund

Majority of the investors under all types of occupation prefer to take downside risk at less than 1%. Only minimum number of investors is ready to take downside risk at 3-5% level.

Table 34: Occupation and downside risk ready to take while investing in mutual fund

Occupation	Downside Ris	Downside Risk Ready to Take While Investing in Mutual Fund					
	Less than 1%	1% - 2%	2% - 3%	3% - 5%	Total		
Employed	37 (33.28)	17 (20.91)	8 (4.69)	2 (5.12)	64		
Self Employed	21 (21.84)	15 (13.72)	0 (3.08)	6 (3.36)	42		
Professional	7 (8.84)	6 (5.53)	2 (1.24)	2 (1.36)	17		
Retired	7 (6.24)	3 (3.92)	1 (0.88)	1 (0.96)	12		
Others	6 (7.8)	8 (4.9)	0 (1.1)	1 (1.2)	15		
Total	78	49	11	12	150		

Source: Primary Data

(Figures given in the brackets represent the Expected Frequency)

**Null hypothesis:** The association between the occupation of the respondents and the downside risk ready to take while investing in mutual fund is not significant.

As the calculated  $x^2$  value (15.695) is less than the table value (21.026) at 5% level of significance for 12 degrees of freedom, the null hypothesis is accepted and it could be concluded that the association between the occupation of the respondents and the downside risk ready to take while investing in mutual fund is not significant.

## Annual Income and Downside Risk Ready to Take While Investing In Mutual Fund

Majority of the investors from all groups of annual income prefer to take down side risk at below 1% level. The higher income category investors are not ready to take higher risk (3 - 5%). More number of lower income category investors (44%) prefer to take the down side risk at 1 - 2%. This shows that irrespective of the income groups majority of the investors prefer to take down side risk less than 1%.

Table 35: Annual income and downside risk ready to take while investing in mutual fund

Annual Income	Downside Risk Ready to Take While Investing in Mutual Fund				
Annual Income	Less than 1%	1% - 2%	2% - 3%	3% - 5%	Total
Less than Rs.1 Lakh	17 (26)	22 (16.33)	6 (3.67)	5 (4)	50
Rs.1 - 2 Lakhs	45 (39)	22 (24.5)	2 (5.5)	6 (6)	<b>7</b> 5
Rs.2 - 3 Lakhs	9 (7.28)	3 (4.57)	1 (1.02)	1 (1.12)	14
More than Rs.3 Lakhs	7 (5.72)	2 (3.59)	2 (0.80)	0 (0.88)	11
Total	78	49	11	12	150

Source: Primary Data

(Figures given in the brackets represent the Expected Frequency)

**Null hypothesis:** The association between the annual income of the respondents and the downside risk ready to take while investing in mutual fund is not significant.

As the calculated  $x^2$  value (14.821) is less than the table value (16.919) at 5% level of significance for 9 degrees of freedom, the null hypothesis is accepted and it could be concluded that the association between the annual income of the respondents and the downside risk ready to take while investing in mutual fund is not significant.

#### Monthly Savings and Downside Risk Ready to Take While Investing in Mutual Fund

Except the savings group Rs.2,001 – Rs.5,000, 40 - 50% of the respondents in the remaining age groups are ready to take a downside risk of less than 1%. Also except in Rs.2,001 – Rs.5,000 about 30 - 40% of the respondents are ready to take risk of 1%. This shows that irrespective of the amount saved the majority of the respondents are ready to assume a down side risk of either below 1% or 1 - 2%.

Table 36: Monthly savings and downside risk ready to take while investing in mutual fund

Monthly Savings	Downside Risk Ready to Take While Investing in Mutual Fund					
Monthly Savings	Less than 1%	1% - 2%	2% - 3%	3% - 5%	Total	
Upto Rs.2,000	36 (41.08)	31 (25.80)	6 (5.79)	6 (6.32)	79	
Rs.2,001 – Rs.5,000	28 (20.8)	6 (13.17)	2 (2.93)	4 (3.2)	40	
Rs.5,001 - Rs.10,000	9 (9.88)	8 (6.20)	1 (1.39)	1 (1.52)	19	
Above Rs.10,001	5 (6.24)	4 (3.92)	2 (0.88)	1 (0.96)	12	

Total	78	49	11	12	150

(Figures given in the brackets represent the Expected Frequency)

**Null hypothesis:** The association between the monthly savings of the respondents and the downside risk ready to take while investing in mutual fund is not significant.

As the calculated  $x^2$  value (11.069) is less than the table value (16.919) at 5% level of significance for 9 degrees of freedom, the null hypothesis is accepted and it could be concluded that the association between the monthly savings of the respondents and the downside risk ready to take while investing in mutual fund is not significant.

#### **SUGGESTIONS**

Based on the analysis and findings the researcher offers the following suggestions.

- The present study found that due to the fund manager's poor risk bearing capacity, timing skill, stock selection ability, and imperfect diversification the schemes had suffered with low return. Hence to increase the fund return the concerned fund managers have to improve all these skills.
- The investors have to consider the prevailing rate of risk free returns and to compare the fund returns with it. Based on this the selection of schemes and the choice of investment avenues can be decided.
- Based on the informal discussion had with the individual investors it is suggested that the quarterly statement can contain the portfolio details through which the investors can understand how their investment is diversified, transparency must be followed while purchasing and redeeming the schemes and entry load charges can be reduced.

## **CONCLUSION**

The Indian Mutual Fund Industry has witnessed tremendous growth in all the selected criteria like resources mobilized, assets under management, number of schemes issued and number of investors, due to structural changes in the industry and the entry of private and foreign mutual funds have made the industry to grow significantly over the study period. Among the selected schemes for the study all schemes have earned positive returns. More number of equity

schemes earned higher return than market return. On the whole only 37% percent of the selected schemes earned higher return than market return. The HDFC Capital Builder Fund in equity, JM G - Security Fund in debt, and Alliance 95 in balanced fund gave the highest average monthly return with the higher risk rate. In the point of view of individual investors who would like to earn high return with low risk there were 6 equity, 1 debt, and 3 balanced schemes. Birla Advantage Fund, Franklin Pharma Fund, Birla MNC Fund, Prudential ICICI, FMCG Fund, Kotak MNC Fund and the UTI Nifty Index Fund under equity schemes, Sundaram Money Fund in debt schemes, under balanced schemes, Franklin Temp India Balanced Fund, Principal Balanced Fund, GIC Balanced Fund fetched higher return with low risk. JM Basic Fund in equity, Chola Freedom Income in debt and the UTI Children Career Plan under balanced fund were the worst performers among the selected schemes.

Due to inability and improper management of the fund managers nearly 50% of the selected equity schemes had given negative differential return .Hence the equity fund managers have more scope for diversifying the portfolio for the given level of total risk. The fund managers of debt and balanced schemes have proved their ability in selecting undervalued securities and diversifying the portfolio. As preference over investment in mutual fund is concerned, investors would prefer to invest more in future. Compared to public sector mutual funds, private sector mutual funds have attained the highest growth rate and performed better.

#### REFERENCES:

- 1. Agarwal and Vinod B (1997), "Economic Rents and Mutual Fund Performance: An Empirical Investigation", Journal of Economics & Finance, Summer 97, Volume. 21, Issue 2, p. 67.
- 2. Alves and Carlos, (2007), "Are Mutual Fund Investors in Jail?", Applied Financial Economics, November 2007, Volume 17, Issue 16, pp. 1301 1312.
- 3. Apap and Antonio (1998), "The Impact of Expenses on Equity Mutual Fund Performance", Journal of Financial planning, February 98, Volume 11, Issue 1, pp. 76 81.
- 4. Bogle and John C (2005), "The Mutual Fund Industry 60 Years later For Better or Worse?", Financial Analysts Journal, January / February 2005, Volume 61, Issue 1, pp. 15 24.
- 5. Bollenn and Nicolas P. B (2007), "Mutual Fund Attributes and Investor Behaviour", Journal of Financial and Quantitative Analysis, September 2007, Volume 42, Issue 3, pp. 683 708.
- 6. Chiang and Kevin C. H (2008), "Further Evidence on the Performance of Fund of Funds: The Case of Real Estate Mutual Funds", Real Estate Economics, Spring 2008, Volume 36, Issue 1, pp. 47 61.
- 7. European Federation of Investment Funds and Companies, Investment Company Institute, and Other National Mutual Funds Associations, www.ici.org/stats/mf/arcglo/index.html.
- 8. Gajendra (2007), "Classifying Mutual Funds in India: Some Results from Clustering", Indian Journal of Economics and Business, Volume. 6, No. 1, July, pp. 71 77.
- 9. Jaspal Singh and Subash Chandar, (2006), "Investors' Preference for Investment in Mutual Funds: An Empirical Evidence", The ICFAI Journal of Behavioural Finance, March, pp. 7 16.
- 10. John (2006), "Performance of Mutual Funds", Journal of Financial and Quantitative Analysis, June, pp. 31 33.
- Kaushik (2006), "Fund Performance Measurement Without Benchmark A Case of Select Indian Mutual Funds", Indian Institute of Capital Markets, Paper presented in the 10<sup>th</sup> Capital Markets Conference, December 19, 2006.
- 12. Kaushik K and Abhay (2010), "Do Mutual Funds with Few Holdings Out Perform the Market?", Journal of Asset Management, February, Volume 9, Issue 6, pp. 398 408.
- 13. Kochman and Ladd Badarinathi, (2001), "Mutual Fund Performance in a Non Symmetrical World: A Case for the Upside Deviation", American Business Review, January 2001, Volume 19, Issue 1, p. 46.
- 14. Martenson and Rita (2008), "Are Men Better Investors Than Women? Gender Difference in Mutual Fund and Pension Investments", Journal of Financial Services Marketing, May 2008, Volume 13, Issue 1, pp. 72 81.
- 15. Mei-Chen Lin (2006), "An Examination of the Determinants of Mutual Fund Performance Over Different Investment Horizons", International Journal of Management, March, Volume 23, Issue 1, pp. 147 156.
- 16. Muralidhar S (2000), "Mutual Funds Match F11's Financial Night in Stock Markets", The Financial Express, February 4, p. 3.
- 17. Sehgal and Sanjay (2009), "Short-Term Persistence in Mutual Funds Performance: Evidence from India", Journal of Accounting, Business and Management, April 2008, Volume 15, Issue 1, pp. 90 108.
- 18. Soumya Guha, "Performance of Indian Equity Mutual Funds Vis-a-Vis Their Style Benchmark: An Empirical Exploration", Indian Institute of Management, Kolkata, Paper Presented in the 10<sup>th</sup> Capital Markets Conference, December 18, 2007.
- 19. Sundar Sankarn (2003) "Can You Afford to Ignore Mutual Funds?", The ICFAI Journal of Applied Finance, Volume 9, No. 8, November, pp. 44 50.
- 20. Treynor, J L and K Mazuy (1996), How to Rate Management of Investment Funds", Harvard Business Review, Volume 43, No. 1, pp. 63 75.
- 21. Umamaheswar Rao (2001), "Mutual Fund Performance during Up and Down Market Conditions", Review of Business, summer 2001, Volume 22, Issue 1, p. 62.
- 22. Vance P Lesseig and D. Micheal Long (2002), "Gains to Mutual Fund Sponsors Offering Multiple Share Class Funds", The Journal of Financial Research, spring 2002, Volume 25, No. 1, pp. 81 98.