



# INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

## INVESTMENT RISK PERCEPTION OF UGC TEACHERS- AN EMPIRICAL STUDY

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**Abstract:** Last decade has seen a plenty of research in the area of behavioural finance. Despite umpteen number of studies on investment behaviour and risk perception, the results are either contradictory or non-conclusive. Since the standard of living and the quality of life of UGC teachers has been enhancing over the period, it was thought pertinent to study the investment risk perception of these stalwarts who contribute to the nation building and socio-economic development of the country. The main objective of the study is to assess the investment risk appetite of UGC teachers in Karnataka. Results were obtained through analysis of primary data collected from 200 respondents in the sample area. Purposive and Snow-ball sampling method was used for data collection. Multivariate Categorical Regression analysis was used to test the hypothesis. Very important findings of the study were that as the number of dependents increases, risk tolerance decreases. And further, annual income has the negative relation with the risk tolerance score. among the various independent variables, age, number of dependents and the annual income of the UGC teachers were found to be important determinant of risk attitude. Based on research findings important suggestions were offered for policy implications as well as to the respondents to improve their investment strategy.

**Key Words:** Investment behaviour, UGC teachers, determinants, Risk Appetite,

### I. INTRODUCTION

Future is Uncertain. One has to save and invest his earnings of today for future. Savings depend upon the income (salary) the employees earn and their spending pattern. There is a considerable surge in the investment options across the globe. Since there are plethora of investment avenues, investors invariably faced with a dilemma as to where to put their money to get maximum return. Moreover, it is pertinent to consider the risk involved in each of these options. The decision of the investors depends, mainly, on the recognition, assessment and tolerance level of the risk associated with the investment portfolio.

Teachers are one of the most respected communities across the globe. Teachers professional advancement is determined by the quality of their life depends on the level of standard of living maintained by them. Income, spending, saving and investment has a great impact on standard of living and in turn influence their profession and the education system.

The number of Universities, Colleges, and students has been drastically increased over the last five years. As such, the number of teaching staff also increased under the UGC scheme of the MHRD, Government of India. As per the AISHE report all UGC Teachers at all India level were 8,64,337 males, 6,38,819 were females and the total number stood at 15,03,156. Since the level of earnings of teachers in higher education, particularly UGC-Teachers, is increased after seventh pay implementation, and there is a drastic change in the pension policy of the Government, Research in this aspect of important stakeholder in education system assumes significance in the field of educational reform.

### II. REVIEW OF LITERATURE:

Last decade has seen plenty of research works on the determinants of investment behavior and risk perception of individual investors. Among them, the most important socio-economic factors are gender, age, income and profession. For the present study, the researcher reviewed the most relevant studies of the previous period taking into account both socio-demographic factors and behavioural factors that affect the investment decision and risk perception. A person's gender is one of the most researched factors that appear to determine the risk perception of individual investors. Studies highlighted the gender as an important factor in investment decision and risk perception (Bruce and Johnson-1994; Jianakoplos and Barnesek -1998; Bajtelsmit and Bernasek-1996; Schumell-1996; Lewellen et al.-1997; Sunden and Surette-1998). In a study the Federal Government's Thrift Savings Plan, Hinz et al. (1997) conclude that women are less likely to hold risky assets and more inclined to use fixed-income alternatives. Kover (1999) finds that fewer than half of women were unwilling to take more risk in return for higher expected return. Studies from other areas of economics, for example purchases of life insurances, support the view that women are more risk averse (Halek and Eisenauer, 2001). Studies also claim that the purpose of investors who tend to trade excessively take more risk and make poor investment decisions (Barber and Odean, 2001). Few studies also demonstrate that women take less risk than men (Byrnes et al.-1999; Felton et al. 2003; Slovic-1966; Flynn et al.-1994; Schubert-2006). Mu-Lan Wang et.al. (2013) find that females, as opposed to males, were more inclined to loss aversion. The researcher found some contradictory evidence on the gender issue in studies by Johnson and Powell (1994) and Schubert et al. (1999), who found that in specific circumstances women appear as risk loving as men or even more so. The study by Schubert (2006) shows

that women appear less sensitive to probabilities and more pessimistic about gains than men do. In risk management, women appear to have a comparative advantage with respect to diversification and communication tasks. However, later in 2007, **Feng and Seasholes** used data from a brokerage firm to show that Chinese men and women show similar investment behavior. **Divya and Sekar (2010)** in their study “Investors preference towards financial investments” argued that the diversity in decision making that create liquidity in the market and found that Fixed securities are always part of portfolio in terms of pure interest bearing bonds, debt instruments; asset backed mortgages, and securitized instruments. **Sanjay Kaushik et.al. (2013)** claim that there was no significant difference in the perception of risk by both the sexes. **Puttaswamy and Paramashivaiah (2014)** in their article entitled “Changing risk perception of women investors: an empirical study” attempted to investigate the risk appetite of women investors. The regression model suggested that there was a negative influence of age of women on the risk tolerance which supported many earlier studies. The result was found significant at five per cent level and only age and education had the positive influence on the risk appetite level of women. **Kumar and Niladri (2015)** in their study on Behavioural Prospects of Individual decision making highlight the common decisional errors made by investors and portfolio managers. They concluded that social factors like herding, emotional contagion, imitation, info cascades, psychological patterns like representativeness availability, anchoring heuristics affect investment decisions of individuals. **Mishra & Mishra (2016)** in their article entitled “Financial Risk Tolerance among Indian Investors: A multiple Discriminant Modeling of Determinants” included the individual value of materialism to investigate risk tolerance on the employees working in a higher education institute of some repute in the city of Bhubaneswar, Odisha, India. However, this study ignores the profession and education level of the investors that influences the investment decision and risk tolerance level. These two are the important factors. **Dr. Dhiraj Jain and Parul Jain (2012)** examined savings and investment pattern of school teachers -a study with reference to Udaipur District, Rajasthan. It has been evident from the study that most of the school teachers are saving their money for the purpose of their children’s education, marriage and as security after retirement. **Dr. Ananthapadmanabha Achar (2012)** studied on —Saving and Investment Behaviour of Teachers - An empirical study. The study showed that the family characteristics such as monthly family income, stage of family life cycle, and upbringing status emerged as determinants of their savings and investment behavior. **Srividhya, and Visalakshi (2013)** in their article entitled “Nest egg (savings) and venture investment pattern of college teachers –a study (puducherry and tamilnadu state)” based on the approach on the economic analysis and its usage on the whole. The study observed that Majority of the respondents feel the best avenue for investment is in deposits and it is helpful to manage the unpredictable future. They feel that with the uncertain future, savings in different forms help the rest family members in peace. **Surender G and S Sharma (2018)**, in their study- “Financial Literacy And Financial Planning Among Teachers Of Higher Education – A study Of Critical Factors Of Select Variables” attempted to know the critical factors using factors analysis in enhancing the Financial Literacy Levels and study their impact on select variables of Financial Planning among teacher of higher education. **Dr. Neela J.Rushdi and Sushma (2019)** in their study “Establishing and Association between Risk Tolerance and Behavioural Biases among Indian Investors” attempted to identify the presence of different biases in individual decision making and their association with the risk tolerance capacity. **Kripa.M. Das and Rajesh T (2020)** conducted a study entitled “A study on investment pattern of women college teachers working in arts and science colleges with special reference to Thiruvananthapuram District”. The study focused on the pattern of savings among women investors and concluded that although a lot of schemes were available for investment, a majority are interested to invest in traditional avenues. Selection of investment alternative by investors depends on their knowledge level regarding various investment avenues, risk taking ability, and purpose of investment.

## 2.1 RESEARCH GAP

The result of the literature review shows that there were many studies on investment pattern, financial literacy and awareness, portfolio management, factors determining the selection of investment avenues, risk tolerance of individual investors on a comprehensive basis. The studies are more of non-contemporary, vibrant but less focused. The studies are of empirical in nature over different types of respondents and study areas. Moreover, the studies on risk tolerance yielded contradictory results of risk measurement. However, hardly no studies are found on the risk tolerance of UGC Teachers particularly in the study area.

## 2.2 STATEMENT OF THE PROBLEM

Despite several studies on the behavioural finance, investment behaviour and investors risk perception of UGC teachers is one of the under researched dimension. Therefore, the research problem has been identified as risk tolerance level of UGC teachers.

## 2.3 SIGNIFICANCE OF THE STUDY

The study will help the salaried class employees to plan savings and investment towards maximizing the returns. The in-depth analysis of the preferred investment avenues and risk perception will help the Government to work out the various feasible schemes to mobilize finance from salaried class investors. This study contributes to the literature on the determinants of individual risk in India where much dynamism in the policy perspectives of the government has been witnessed in recent years.

## 2.4 RATIONALE OF THE STUDY

There are few studies in other states. However, either sufficient time has elapsed since several reforms in financial markets took place, or their sample size was too small to replicate the results or the study was restricted to limited scope. We find no studies on the present topic on UGC teachers specially after the Central Government implemented the salary package as per 7<sup>th</sup> Central Pay Commission (CPC) recommendation, wherein the teachers in the higher education gained greater propensity to save and invest their increased salary income in various investment avenues subjected to different risk profiles. As there is no specific study on the investors risk perception of UGC teachers in Karnataka, the researcher undertook the research on the topic “Investment Risk perception of UGC teachers- An empirical study”

## 2.5 SCOPE OF THE STUDY

The present study aims to understand the investment behavior and risk tolerance level as perceived by UGC Teachers in undergraduate colleges and Universities belong to different faculty in the state of Karnataka. It covers investment in general and assesses the level of risk tolerance as perceived by the respondents during the research period.

## 2.6 OBJECTIVES OF THE STUDY

The study aims to understand the investment preference and risk tolerance in general. The following are the specific objectives of the study:

- 1) To study the investment risk appetite of the respondents
- 2) To offer suggestions based on the research findings, for policy implications.

## 2.7 HYPOTHESIS:

*H<sub>01</sub>*: There is no significant relation between risk perception and independent variables

## III RESEARCH METHODOLOGY

The present study is both descriptive and empirical in nature. The target group of the population of the study includes UGC teachers of both undergraduate colleges and Universities, both public and private, working in all the disciplines. For the present study, Purposive sampling and snowball sampling method was adopted. The researcher issued 230 questionnaires to UGC teachers working in both Undergraduate colleges and Universities. In total 206 instruments were received from the respondents. Therefore, the response rate was 90 per cent. Six incomplete questionnaires were removed and finally a total sample of 200 filled in questionnaires were found valid for analysis.

### 3.1 TOOLS OF ANALYSIS

Primary data was analysed using SPSS version 20. Data was analysed by percentages, ANOVA, and multiple regression analysis for testing of hypothesis.

## IV DATA ANALYSIS AND INTERPRETATION

The study used Primary data collected from 200 respondents valid for the analysis. The analysis include the socio-demographic classification of the respondents on the basis of Gender, Age, Marital Status, Number of Dependents, Academic Achievement, Designation, Annual Income, Annual Savings, their income tax payment status, and Whether they are investing in various avenues. Data analysis directed us to go for non-parametric test, as the calculated value of ANOVA was less than the hypothetical value at 5 percent. The set of 63 items (28 Risk Tolerance items) was tested for reliability using Cronbach Alpha. The Cronbach Alpha **0.848** in the present case

Table 1: Demographic Profile of the Respondents

		GENDER					
		MALE		FEMALE		Total	
		Count	%	Count	%	Count	%
AGE (In Years)	Below 35	27	13.5%	28	14.0%	55	27.5%
	35-45	48	24.0%	12	6.0%	60	30.0%
	45-55	52	26.0%	4	2.0%	56	28.0%
	Above 55	25	12.5%	4	2.0%	29	14.5%
	<b>Subtotal</b>	<b>152</b>	<b>76.0%</b>	<b>48</b>	<b>24.0%</b>	<b>200</b>	<b>100.0%</b>
Marital Status	Single	16	8.0%	16	8.0%	32	16.0%
	Married	132	66.0%	28	14.0%	160	80.0%
	Widow/Divorced	4	2.0%	4	2.0%	8	4.0%
	<b>Subtotal</b>	<b>152</b>	<b>76.0%</b>	<b>48</b>	<b>24.0%</b>	<b>200</b>	<b>100.0%</b>
Number of Dependents	1	21	10.5%	4	2.0%	25	12.5%
	2	8	4.0%	20	10.0%	28	14.0%
	3	68	34.0%	8	4.0%	76	38.0%
	More than 3	55	27.5%	16	8.0%	71	35.5%
	<b>Subtotal</b>	<b>152</b>	<b>76.0%</b>	<b>48</b>	<b>24.0%</b>	<b>200</b>	<b>100.0%</b>
Academic Level	PG	75	37.5%	30	15.0%	105	52.5%
	Ph.D.	73	36.5%	18	9.0%	91	45.5%
	Post-Doctoral	4	2.0%	0	0.0%	4	2.0%
	<b>Subtotal</b>	<b>152</b>	<b>76.0%</b>	<b>48</b>	<b>24.0%</b>	<b>200</b>	<b>100.0%</b>
Designation	Assistant Professor	95	47.5%	40	20.0%	135	67.5%
	Associate Professor	45	22.5%	7	3.5%	52	26.0%
	Professor	12	6.0%	1	0.5%	13	6.5%
	<b>Subtotal</b>	<b>152</b>	<b>76.0%</b>	<b>48</b>	<b>24.0%</b>	<b>200</b>	<b>100.0%</b>
Annual Income	Below ₹5,00,000	6	3.0%	30	15.0%	36	18.0%
	₹5,00,000 - ₹10,00,000	33	16.5%	2	1.0%	35	17.5%
	₹10,00,000 - ₹15,00,000	70	35.0%	12	6.0%	82	41.0%
	Above ₹15,00,000	43	21.5%	4	2.0%	47	23.5%
	<b>Subtotal</b>	<b>152</b>	<b>76.0%</b>	<b>48</b>	<b>24.0%</b>	<b>200</b>	<b>100.0%</b>

Source: Primary Data

shows the high degree of internal consistency among the items in the instrument. Table 1 shows the demographic classification of the data.

Table 1 indicates that 152 (76 %) of the respondents are male and 48 (24%) of the respondents are female respectively. The largest group of the respondents (30%) are in the age group of 35-45 years whereas 28% of the respondents are in the age group of 45-55 years, 27.5 % of the respondents are in the age group of below 35 years and 14.5% of the respondents are above 55 years. The designation classification shows that a large percentage (67%) of the respondents are Assistant Professors, 26% are Associate Professors- the second level of Professional and Career Advancement Stage as per UGC policy, and 6.5% of the respondents are Professors- the highest level of designation in the teaching career under the UGC norms. Analysis further show that 41% of the respondents are in the group of annual income of ₹10,00,000 - ₹15,00,000, 23.5% are in the group of annual income above ₹15,00,000, 18% of the respondents have annual income below ₹5,00,000, and 17.5% of the respondents are having annual income ₹5,00,000 - ₹10,00,000. It is can be inferred that as the respondents are academicians and knowledgeable individuals, they take the investment decisions mostly on their own. In some typical cases, they resort to their friends, relatives and Colleagues.

The questionnaire contains the investment names and the category of risk they associated. It includes demographic profile of the respondents, investment pattern and behavior, and the statements based on an internationally recognized instrument developed by Grable and Lytton (1999) to investigate to what extent demographic factors influence an individual's willingness to take on financial risk. However, we have slightly modified the questionnaire to fulfill the reliability parameter and included 27 risk tolerance questions. These measures are widely used because they are available in the public domain; easy to administer, and relatively easy for respondents to answer. As such investment avenues grouped into three such as Low risk or safe investment in the first category, Moderate risk investments in the second category, and the high risk investments in the third category. The study used Likert Scale questions with three degree of preference- Low preferred, Moderately Preferred and highly preferred. If the respondent ranks and

investment, in each category, as 'Highly Preferred' for the attribute, the variable score **03 points** and 'Moderately Preferred' scores **2 points** and 'Less Preferred or low preferred' scores **1 point**.

The study of risk perception and risk tolerance level of the investors is one of the important objectives of the study. The Questionnaire includes 28 items of risk tolerance questions designed with five point Likert scale. Weights assigned were 1, 2, 3, 4, and 5 for the responses. For instance, if the respondent strongly disagree (SDA) that he/she is not willing to take risk, or not willing to invest in risky portfolio, 01 mark is assigned. On the other hand if they strongly agree (SA) that they are not willing to take risk and If they are ready to bear the risk on investment, 05 marks are assigned. Weights were assigned to the answers to the questions on objectives of investment, investment selection criteria, Investment decision on the different investment avenues in the same order. More weights are assigned to Share market, mutual Fund, Hedge fund, Private Equity, as they are more subjected to Volatility in the market. Similarly less weightage given to Investments such as Government securities, Real Estate, Bullion, Bonds and Term deposits and other savings as they are not much prone to market sentiments. For those who say that willing to bear the risk, more marks were assigned and those who not, were marked less mark. Finally, the total weight points obtained by the respondents were added up and we have taken total score of each respondent.

Table 2 shows the total points indicating the level of risk tolerance scores whereas Table 3 highlights the statistic on risk appetite level. Table 23 indicates the variables in coded form-the extracts of the SPSS variables entry codes for all the risk tolerance statements. (the questionnaire is shown in the annexure). The table shows the frequency of the respondent who have strongly agreed and who have strongly disagreed and who have expressed their risk perception to the statement. The weightages were recorded in the SPSS for each individual by transforming the scores of the variables into a single variable. This variable is taken as the risk tolerance score and it is the dependent variable in our model, where as all the demographic variables are independent variables.

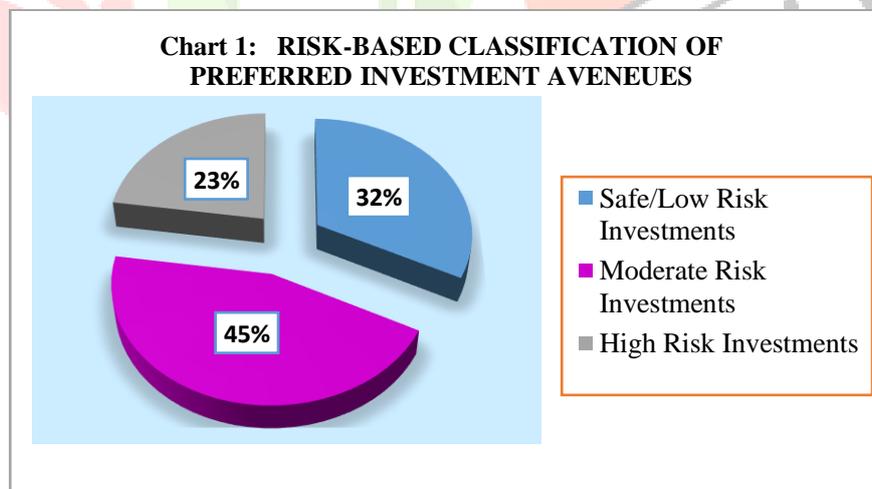
We have classified the individual risk tolerance scores into three different groups by ranking. Initially mean median and mode as shown in the Table 3 were taken as the base for grouping. Minimum scores of respondents is 29 whereas 164 is the highest score. The mean score is 95.54 with the standard deviation of 30.718. We have grouped respondents based on risk tolerance score.

There are 97 respondents who score marks 102 & above. 51 respondents score is between 70 and 101 whereas 52 respondents score is below 69. Table 24 below shows the percentage of respondents categorized into High risk appetite, Moderate risk appetite and Low risk appetite. 48.5% of them have high risk appetite, 25.5% have moderate risk appetite and 26 % have low risk appetite. They are labelled as '**Aggressive Investors**', '**Moderate Investors**' and '**Conservative Investors**' on the basis of their risk tolerance level.

**Table 2: Level of Risk Tolerance Score**

RISK LEVEL OF INVESTMENTS	HP	MP	LP	WS	%	Rank
<b>Safe/Low Risk Investments</b>	279	509	412	2267	32	II
<b>Moderate Risk Investments</b>	306	729	765	3141	45	I
<b>High Risk Investments</b>	120	343	537	1583	23	III
	705	1581	1714	6991	100	

Source: Primary Data



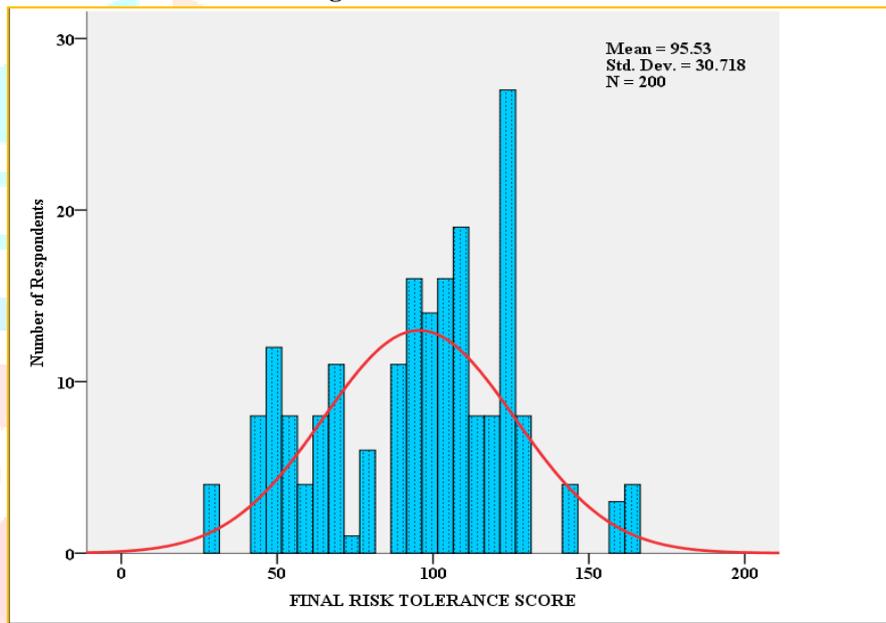
Source: Primary Data

Contrary to the early studies, the results tell us that investors risk tolerance level is high, more percentage of people dare to bear risks. Only 1/4 of the respondents are risk averse. The remaining respondents show that they invest in risky stocks, risky portfolios and desire to earn current income; need growth based investments rather than safety of investment. However, UGC teachers are assertive about the wealth creation as their objective, though they are bold enough to invest in risky portfolios.

**Table 3: Test Statistics Of Final Risk Tolerance Score**

N	Valid	200
	Missing	0
Mean		<b>95.54</b>
Median		101.00
Mode		122
Std. Deviation		<b>30.718</b>
Variance		943.567
Minimum		29
Maximum		164
Percentiles	<b>25</b>	69.00
	<b>50</b>	101.00
	<b>75</b>	119.25

**Chart 1: Histogram of Total Risk Tolerance scores**



Source: Computed from Primary Data

Table 3 and chart 1 exhibits the statistical analysis of risk tolerance score and the histogram showing the normal distribution of the variables constructed for it. The histogram and the normal distribution curve clearly indicates that more number of observations above the mean and the median level for the variables constructed and risk tolerance scores analysed. The median value 101 indicates that more than 50% of the respondents have risk tolerance score above 101. Only 26% of the respondents have scores below the median value. This analysis highlights the major chunk of the sample has the risk appetite score above the average.

#### 4.1 Testing of Hypothesis

The Null Hypothesis ( $H_{01}$ ) states that There is no significant relation between risk perception and independent variables

$H_{01}$ : There is no significant relation between risk tolerance and independent variables

To test our hypothesis ( $H_{01}$ ) the correlations between Risk appetite score and all the potential independent variables are reported in Table 4.

Table 4: Correlations Between Risk Tolerance Score and Independent Variables

	Risk Tolerance	Gender	Age	Marital Status	Number Of Dependents	Academic Level	Designation	Annual Income
Risk Tolerance	1							
Gender	.047	1						
Age	.249**	-.345**	1					
Marital Status	.161*	-.170*	.500**	1				
Dependents	-.036	-.121	.147*	.165*	1			
Academic Level	.189**	-.130	.358**	.280**	.042	1		
Designation	.221**	-.188**	.636**	.275**	.097	.490**	1	
Annual Income	.075	-.501**	.664**	.385**	.073	.337**	.415**	1

\*\* Correlation is significant at the 0.01 level (2-tailed). \* Correlation is significant at the 0.05 level (2-tailed).

Source: Computed from Primary Data

The table shows the moderate positive correlation between age and marital status, marital status and dependents, academic level, designation and annual income. Weaker positive correlation is reported between annual income, academic level, designation and dependents. There is a negative correlation between Gender and all other variables. A strongest negative correlation between Gender and age is displayed. Similarly, negative correlation is reported between marital status and Gender. Negative correlation between risk tolerance and the number of dependents. Therefore, the Hypothesis ( $H_{01}$ ) is not rejected. Very important finding is that as the number of dependents increases risk tolerance decreases as it is reported between Dependents and risk tolerance score (-0.036). Table 4 provides that multicollinearity is unlikely to affect the estimation of the coefficients in the regression equation.

Table 5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.331 <sup>a</sup>	.109	.077	29.515

a. Predictors: (Constant), Annual Income, Number of Dependents, Academic Level, Marital Status, GENDER, Designation, AGE

Table 6: ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	20514.651	7	2930.664	<b>3.364</b>	<b>.002<sup>b</sup></b>
	Residual	167255.104	<b>192</b>	871.120		
	Total	187769.755	199			

a. **Dependent Variable:** RSKTOLRSCORE

b. **Predictors:** (Constant), Annual Income, Number of Dependents, Academic Level, Marital Status, GENDER, Designation, AGE

Table 7: Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	<b>64.621</b>	15.417		4.192	.000
GENDER	7.190	5.688	.100	1.264	.208
AGE	8.524	3.434	.285	2.482	<b>.014</b>
Marital Status	3.954	5.729	.056	.690	<b>.491</b>
Number of Dependents	<b>-2.292</b>	2.142	-.075	-1.070	.286
Academic Level	6.109	4.567	.107	1.338	.183
Designation	2.816	4.834	.056	.583	.561
Annual Income	<b>-4.178</b>	3.023	-.139	-1.382	.169

a. Dependent Variable: RSKTOLRSCORE

## 4.2 Regression Model

In order to test the determinants of risk tolerance, a number of different demographic factors may be considered. It is possible to quantify the effect of each of these demographic characteristics on the risk tolerance of an individual using statistical analysis.

The regression model applied to test the determinants of risk tolerance of respondents is as follows:

$$R\gamma = a_0 + a_1(\text{Gender}) + a_2(\text{Age}) + a_3(\text{MS}) + a_4(\text{DP}) + a_5(\text{ACL}) + a_6(\text{DSG}) + a_7(\text{ANI}) + \epsilon \dots (1)$$

$R\gamma$  is the risk appetite level;

MS-Marital Status;

DP- number of Dependents;

ACL-Academic Level;

DSG-Designation;

ANIC-Annual income.

The value of  $R^2$  equals 0.101, indicating that 10 percent of the variations in the risk tolerance are explained by the independent variables shown in the model summary (Table 6). The value of  $R^2$  is significant as indicated by the  $p$  value (**0.002**) of F statistics as given in the ANOVA (Table 6).

Of all the demographic characteristics tested in equation (1) AGE factor was found to be significant at 5% level for sample group. The constant term in this model, 64.621 represents a baseline risk tolerance score which will be up or down according to the characteristics of the individual respondent. The coefficients for the independent variables indicate the direction and magnitude of the effect on risk tolerance. Number of dependents and Annual Income are negatively related showing a decrease of **2.292 and 4.178 points**. Gender, Age, Marital Status, Academic level and Designation are positively related. All variables in the test found to be insignificant at 5% level (Table 6). The results also support the view held by many in the investment industry that investors become more risk averse with the increase in the number of dependents. The earlier studies have not given a uniform conclusion about the Age and Gender as the influencing factors. The studies on women investors have given some positive results about the determinant of risk tolerance level. Very interestingly, the present study finds that Annual income has the negative relation with the risk tolerance score. This signifies that the increase in the annual income decreases the risk tolerance level by 4.178 points

## V. FINDINGS

- Risk tolerance score are found to be Minimum 29 and 164 is the highest score. The mean score is 95.54 with the standard deviation of 30.718.
- The median value 101 indicates that more than 50% of the respondents have risk tolerance score above 101.
- 48.5% of the respondents have high risk appetite, 25.5% have moderate risk appetite and 26 % have low risk appetite. They are labelled as 'Aggressive Investors', 'Moderate Investors' and 'Conservative Investors' on the basis of their risk tolerance level.
- Contrary to the early studies, the results tell us that investors risk tolerance level is high, more percentage of people dare to bear risks.
- Only 1/4 of the respondents are risk averse.
- 48.5% of the respondents perceive that they could invest in risky stocks, risky portfolios and desire to earn current income; they prefer growth based investments rather than safety of investment. However, UGC teachers are assertive about the wealth creation as their objective, though they are bold enough to invest in risky portfolios.
- A strongest negative correlation between Gender and age is displayed.
- Negative correlation between risk tolerance and the number of dependents.
- Number of dependents and Annual Income are negatively related showing a decrease of 2.292 and 4.178 points
- The Seventh Hypothesis ( $H_{01}$ ) is not rejected

- Very important finding is that as the number of dependents increases risk tolerance decreases as it is reported between Dependents and risk tolerance score (-0.036).
- Gender, Age, Marital Status, Academic level and Designation are positively related.
- AGE factor was found to be significant at 5% level for sample group.
- The value of  $R^2$  equals 0.101, indicating that 10 percent of the variations in the risk tolerance are explained by the independent variables
- Very interestingly, the present study finds that Annual income has the negative relation with the risk tolerance score. This signifies that the increase in the annual income decreases the risk tolerance level by 4.178 points.

### 5.1. SUGGESTIONS

- Based on the research findings, it is suggested that the respondents who are willing to invest their idle money in a profitable portfolio, initially to take advice of the financial agents. In addition, make a suitable diversification so that their investment is well balanced to earn income, preserve capital, and maintain liquidity.
- It can be suggested that low risk tolerant investors can have a mix of low risk and moderate investment avenues in a suitable proportion.
- The high risk tolerant investors are bold, dynamic and have enough experience in the investment world can have better play in mutual funds and hedge funds in addition to equity and debenture in a balanced proportion.
- It is suggested that low risk tolerant investor, particularly teachers, can take the services of investment consultant for short period to get the insight of risky portfolios
- The Government should make necessary financial literacy and risk management training to the teachers. From this the teachers can save, invest, and manage diversified portfolio and finally contribute the development of financial market.
- The banks and fund managers are advised to design a suitable website and media through which communicate the valuable information to the investors regularly.
- Investment managers are advised to design a mobile application for helping the investors to learn the investment management, adjust the portfolios.
- Bank managers can design a suitable applications to suit the regular salaried employees to divert their idle money or convert their low earning investment basket into a wide variety of portfolios according to the market conditions
- A very important suggestion to the teaching community is that they should be open minded to learn and practice, and also teach the next generation the risk mitigating ideas so that a viable, profitable investment portfolio is chosen wisely.

### 5.2 Conclusions

Attitude towards risk, investment choice and decisions are very important determinant of financial well-being of an individual. Individual investors risk tolerance level interpreted in various studies is reviewed in the present study. Since the UGC teachers as a separate segment was not touched upon for research purpose, we proceeded to fill the research gap. The study of risk perception would contribute to better decisions in their investment choice. Where teachers knowledgeable community, more competent in education, employment, socially and politically as well, it was thought prudent to diagnose the determinants of risk tolerance and appetite level of UGC teachers. The results show that among the various independent variables, age, number of dependents and the annual income of the UGC teachers were found to be important determinant of risk attitude. Based on research findings important suggestions were offered for policy implications as well as to the respondents to improve their investment strategy.

### 5.3 Limitation

The major limitations of the study are-

- Since a smaller sample was chosen, it may not be a true representative of the population under study.
- The possibility of the respondent's responses being biased cannot be ruled out.
- The present study covers only few independent variables. But the risk perception and tolerance depend on various other factors also.

## REFERENCE

- Bajtelsmit, V. and Bernasek, A.,(1996). Why do women invest differently than men?,  
*FinancialCounseling and Investing* 7(1), 1-10.
- Barberis, N. and Thaler, R., (2003). "A Survey of behavioural finance," Handbook of  
Economics of Finance, in: G.M. Constantinides & M.Harris & R.M. Stulz (ed.), edition 1, volume 1, chapter 18, pp. 1053-1128  
Elsevier.<http://www.jb-business.de/wp-content/uploads/2013/01/behavioral-finance-yale-study.pdf>
- Banerjee, V.A.(1992). "A Simple Model of Herd Behavior," *The Quarterly Journal of  
Economics*, Vol. 107, No. 3, pp. 797-817
- Barnewall M (1987). "Psychological Characteristics of the Individual Investor", in William  
Droms, ed., *Asset Allocation for the Individual Investor*, Charlottesville, Va: The  
Institute of Chartered Financial Analysts.
- Bernheim B.D, & Garrett D.M (1996). The determinants and consequences of Financial  
Education in the Workplace: Education from a Survey of Households (Working Paper No.5667). *Cambridge, MA: National Bureau  
of Economic Research*.
- Bruce, A. and Johnson, J.,(1994). "Male and female betting behavior: new perspectives,"

*Journal of Gambling Studies* 10(2) 183-198.

Bymes, J.P., Miller, D.C. and Schafer, W.D.,(1999). Gender Differences in Risk Taking: A

Meta-Analysis." *Psychological Bulletin* 125, (3) 367-383.

Dr. Ananthapadhma Achar (2012). Saving and Investment Behaviour of Teachers – An

Empirical study, *International Journal of Physical and Social Sciences*, August 2012, pp 263-286

Dr. Dhiraj Jain and Parul Jain (2012). Savings and Investment Pattern of School Teachers –a

study with reference to Udaipur District, Rajasthan, *International Journal Of Research In Commerce, Economics & Management*, Volume no. 2 (2012), Issue no. 6 (JUNE 2012)

Deepak Tandon, Kamini Tandon and Niddhi Malhotra, (2014). An Evaluation of the Technical,

Pure Technical and Scale Efficiency in the Indian Banking Industry Using Data Envelop Analysis, Vol.15, No.3, pp.545-563.

Dhivya R. & Sekar C. (2010). Investors' Preference towards Financial Investments-Some

survey Evidence. *Indian Journal of Finance*, 4(7), 2010.

Doubleday, W. G., (2002). Expected utility and the cumulative consequences of repeated

decisions: a tutorial, *Risk, Decision and Policy* 7(2), 109-119.

Felton, J., Gibson, B. and Sanbonmatsu, D.M., (2003). Preference for risk in investing as a

function of trait optimism and gender, *Journal of Behavioral Finance* 4(1) 33-40.

Feng, L. and Seasholes, M. S., (2007). Individual investors and gender similarities in an

emerging stock market, *Pacific-Basin Finance Journal*, 16(2008) (1) 44-60. Online version.

[http://seasholes.com/files/Paper\\_Feng\\_Seasholes\\_2008\\_PBFJ.pdf](http://seasholes.com/files/Paper_Feng_Seasholes_2008_PBFJ.pdf)

Fisher J, (1952). "Income, Spending and Savings patterns of Consumer units in different age

groups", *Studies in Income and Wealth*, vol.15, NEBER, Princeton University Press.

Flynn, J., Slovic, P. and Mertz, C.K., (1994). Gender, race and perception of environmental

health risks, *Risk Analysis* 14(6), 1101-1108.

Grable, J. E. and Lytton, R. H. (1999). 'Financial risk tolerance revisited: the development of

a risk assessment instrument', *Financial Services Review*. Vol. 8, 163-181.

Hinz, R. P., McCarthy, D. D., Turner, J. A. (1997). "Are Women Conservative Investors?:

Gender Differences in Participant-Directed Pension Investments", in *Positioning*

*Pensions for the Twenty-First Century*, Gordon, M. S., Mitchell, O. S., Twinney, M. M., eds. Philadelphia: University of Pennsylvania Press, pp.145-156..

Halek, M. and Eisenhauer, J. G. (2001). Demography and risk aversion, *Journal of Risk and*

*Insurance* 68(1), 1—24.

Johnson, J.E.V. and Powell, P.L.,(1994). Decision making, risk and gender: are managers

different?, *British Journal of Management* 5(2), 123-38

Jianakoplos, N. and Bernasek, A., (1998). Are women more risk averse?, *Economic Inquiry*

36(4), 620-630.

Kripa. M. Das & Dr. Rajesh T (2020). "A study on investment pattern of women college

teachers working in arts and science colleges with special reference to Thiruvananthapuram district". *Mukt Shabd Journal* .9 (7).

Pp333-344.

Kumar Raut, Niladri Das (2015). Behavioral Prospects of Individual Investor Decision Making

Process: A Review. *Indian Journal of Finance*, 9(4), 2015. DOI: [10.17010/ijf/2015/v9i4/71457](https://doi.org/10.17010/ijf/2015/v9i4/71457)

Kover, A.,(1999). Okay, women really could use special advice about investing, *Fortune*,

139(6), 129-132

Lewellen, W., Lease, R. and Schlarbaum, G.,(1997). Patterns of investment strategy and

behavior among individual investors, *Journal of Business*, 50(3), 296-333.

Mishra & Mishra (2016). Financial Risk Tolerance among Indian Investors: A Multiple

Discriminant Modeling of Determinants, *Strategic Change*, Vol 25.

DOI-10.1002/jsc.2075

- Mu-Lan Wang, Hung-His Huang and Shu-Hui Ho (2013). Measurement of Loss Aversion Behaviour under prospect Theory: Comparison of various kinds of individuals, *Indian Journal of Finance*, 7(9), 5-15
- Naela Jamal Rushdi & Sushma (2019). Establishing AN Association between Risk Tolerance and Behavioral Biases among Indian Investors. *International Journal of Engineering and Advanced Technology (IJEAT)* ISSN: 2249-8958 (Online), 9 (2), 2019.
- Puttaswamy, Paramashiviah, P and Ramya, S. K, (2014). Changing Risk Perception of Women Investors: An Empirical Study, *Indian Journal of Finance*, Vol.8, No.6, pp.22-32.
- Sanjay Kaushik, Garima Kamboj and Diksha Kakkar,(2013). Trade-Offs Between Investors' Perceptions of Risk, Returns, Service Quality, and Mutual Fund Investments, *Indian Journal of Finance*, 7(12), 27-37.
- Sanjay Kaushik, Garima Kamboj and Diksha Kakkar,(2013). Trade-Offs Between Investors' Perceptions of Risk, Returns, Service Quality, and Mutual Fund Investments, *Indian Journal of Finance*, 7(12), 27-37.
- Schubert, R.(2006). Analyzing and Managing risk – on the importance of gender differences in risk attitudes,” *Managerial Finance* 32 (9), 706-715. DOI:[10.1108/03074350610681925](https://doi.org/10.1108/03074350610681925)
- Schumell, D. (1996). Increased focus on women as financial service customers. *Trust and Estates*, 135( 6), 19-20.
- Slovic, P, (1966). Risk-taking in Children: Age and Sex Differences, *Child Development* 37(1), 169-176. DOI: 10.2307/1126437
- Srividhya,N. & Visalakshi,S. (2013). Net egg (savings) and venture (investment) Pattern of college teachers- A study (Puducherry and Tamilnadu State). *International Monthly Refereed journal of Research in Management & Technology*, ISSN-2320-0073,2, Pp.7-19.
- Srividhya, N. & Visalakshi, S. (2013). Nest egg (savings) and Venture (investment) Pattern of college teachers – A Study (Puducherry and Tamilnadu State). *International Monthly Refereed Journal of Research in Management & Technology*, ISSN-2320-0073, 2, Pp.7-19
- G Surendar & Subramanya Sarma (2017). Financial Literacy and Financial Planning among Teachers of Higher Education – A Comparative Study on Select Variables. *Amity Journal of Finance*, 2(1), (31-46)
- Sunden, A. and Surette, B.,(1998). Gender differences in the allocation of assets in retirement savings plans,” *American Economic Review* 88(2), 207-211.