Effect Of Gender, Age And Income On Investors' Risk Perception In Investment Decision : A Survey Study

Palash Bairagi[1]

Dr. Anindita Chakraborty[2]

The present research focuses on the behavioural aspect of investment, which tells that the investment decision varies with the uncertainty of the situation and the perception of the individual at different risk level. The risks are categorised by different class of people of sex differences, age differences and different income groups. These individual groups directly or indirectly associated with the perception of individual risk level in decision making. Based on this the present study tries to investigate the effect of gender, age and income differences on investors' risk perception in investment decision in the Indian context. Delhi-NCR region is the primary location of the study for data collection with the help of a questionnaire method. The finding of the study says that there is no significant difference in investors' risk perception among the different independent groups.

Key Words : Risk, Risk perception, investors, Investment decision.

1. INTRODUCTION

The advancement in finance proliferated the introduction of behavioural finance as a new discipline, which mainly deals with investors' biases and psychological factors. The factors caused investment decision making nasty sometimes. The principal cause of this nasty behaviour is that "the investors' act irrational" (Shiller, 2000), by its sex, age and income. Apart from these, the foremost cause is the individual investors' himself and his level of risk perception which intervene the investment decision making. In other words, the investors' risk perceptions are influenced by its social emotion which affects the investment decision making. In behavioural finance (Slovic, 1987), risk perception is defined as the subjective judgments which relates to how much people know about and understand risks. Similarly, Bairagi et al., (2018) say about the concept "Risk perception" which defines the way retail investors' view the financial risk basaed on expert knowledge and experiences that acquired from a different class of people.

In this study, we investigate systematic differences of risk perception between groups. In particular, we study the interaction of risk perception of an individual with the gender, age and income of the decision maker. The common stereotype is that women are more risk-averse than men, people of young age are more proactive in investment. Therefore, the financial risk or the perception acquired from a different class of people is characterised by sex differences, age differences and individual income differences which we called the socio-economic factor. These factors are influences the investment decisions due to their perception of risk toward investment. In other words, we can say that investors' risk perception involved with the differences male-female character, age variation and the income figures. Take some previous context who says that "is men more willing to perceive or take the financial risk than women?" (Charness et al., 2007) answered this question by concluding that women make a smaller investment than the men do and they appear to be more financial risk averse.

Furthermore, the novelty of the study gearing to improve the clarity of the study by deep investigating the significantly difference of the individual perception in investment decision among the groups. While doing so, most of the data were collected not for gender, age or income valuation but for satisfying the research hypothesis in below. Therefore, the study fulfilling the criteria of gender, age and income of individual investors' perception towards investment risk and their relation. With this, the present study extended with some extensive literature review, objective and hypothesis framework, methodology and analysis and discussions in below.

2. LITERATURE REVIEW

The existing literature in the area of effect of gender, age and Income on risk perception and it relates to the investment decision making. The discussion supports some of the critical summaries of the literature reviewed which paves the way for the study which includes with the

[1] Research Scholar, Institute of Management Studies, Banaras Hindu University, Varanasi (U.P.), palashbairagi@fmsbhu.ac.in

[2] Assistant Professor, Institute of Management Studies, Banaras Hindu University, Varanasi (U.P), aninditachakraborty19@gmail.com

concept of risk in investment decision making. Lopes (1987) defined risk is a situation where decisions are made from consequences whose, future events having known probability. It involves a factor of uncertainty and a potential loss (Kaplan and Garrick, 1981). Further, Wildavsky and Dake (1990) defined psychology of risk is the ability to predict and explain what kind of people will perceive potential hazards to be how dangerous. In another word, it is a psychological aspect of risk perception that studies behavioural finance and the biases (Ricciardi, 2008).

Weber and Milliman (1997) experimented that risk perception of investors and the choices are related to each other which gives same preferences for perceived risk in both the series of decision making. The authors also tried to find out the factor that changes and affects choices which in turn also affects risk perception.

Madhumarthi (1998) suggested that the preferences of the investors and their perception about the risk in the Indian markets. Three classes of investors had been identified based on their risk perception namely, risk seekers, risk bearers and risk avoiders. The result showed the operating performance of the companies influenced the investors. The risk perception changed the investment decisions of the investors and the profit earned by them.

Olsen and Cox (2001) studied the influence of gender perception and their responses on investment risk where social and technological hazards is an extensive evidence which includes the factors as age, education, wealth and experience for determining the answers to investment risk for both genders are different from each other or not and their perception level. The evidence on the existing literature of gender differences in financial decision making stems from the behavioural studies. The consensus on the size of the gender differences and the methodical consistency of the study (Powell and Ansic, 1997).However, in the case of behavioural finance study of general investors, Gender is the most important explanatory factor that affects the confidence in the investment decision. If we look back to some traditional literature like Lewellen et al. (1977) who said that gender differences had been associated with the types of financial information possessed and the use of such information directly or indirectly influences the investors' decision making. More likely, Estes &Hosseini (1988) also said that women have significantly lower confidence in an investment task than men, Similarly after controlling for all other relevant variables and characteristics including the amount of the investment decision.

Garbarino and Strahilevitz (2004) examined that men and women differ in their perception of the risks which associated with the shopping online and its effects. Similarly, they also discussed the gender differences in the effect of receiving a recommendation from relatives, friends on perceptions of online purchased risk. They further compared the men women willingness towards the investment in online. The result revealed that women perceived a higher level of risk in online purchasing than the men.

Similarly, Age exhibits the investors' risk perception and the financial decision over the life cycle and implications for regulation by Agrawal et al. (2009), who said that the average person peak financial decision making age is around 53 years of old. In contrary to this Goetting and Schmall (1993) noted that the ability of investors to make sound financial decisions which associated with the gaining financial knowledge. To make sound financial decisions increases sharply in the age of 20 years to 30 years of old, the levels off and peak in the 50 years of old, then it begins to fall sharply on 70 to 80 years of old.

Onsomu (2015) identified the effect of age on investors' decision at the Nairobi Securities exchange where the respondent in the age bracket of 18-30 years, 31-40 years and 41-50 years respectively were affected investors decision to overconfident bias. The finding depicted that age differences have a significant effect on the level of overconfident bias among the participants. Further, the author concluded that the most affected investors are in the age bracket between 31-40 years of old.

In case of Income, which we can be called it socio-economic factor, Lutfi (2011) explained the relationship between the demographic factors like such as gender, age, marital status, education, income, and family members, and investor's risk tolerance as well as investment preference. The author resulted that the respondent with income of at list 10 million, puts most of their money in capital market instruments than the that of the respondent with an income of less than 10 million tents to put their money in bank account. Therefore, they concluded that low-income investors tend to save their money in a bank account which indicates that the income affects the investors' risk behaviour.

Ansri and Moid (2013) explained the crucial factors that affect investment behaviour of young investors' on which the study inferred that majority of investors invest for growth and additional income and the primary factor that guides their investment decision is a risk factor which means that investors mostly are risk-averse.

Similarly, Prakash et al. (2014) studied the different socio-economic classes which influence the risk decision behaviour in Karachi. The authors also said that investors in Karachi are particular about their future market condition and hence they are reluctant to take risk decision and invest in less risky assets. Similarly, regarding socio-economic factors, the investors with high income prefer more risk than the investors' with less income. Furthermore, they also exhibited that the people with higher level of education prefer higher risk than the investors have a low level of education.

3. THE OBJECTIVE OF THE STUDY

The objective of the present study is to investigate the effect of gender, age and income on investors' risk perception in the investment decision.

Hypothesis framework :

For Gender

H_a= There isa significant relationship between the effect of gender on investors risk perception in the investment decision.

For Age

H_a=There is a significant relationship between the effect of ageon investors risk perception in the investment decision.

For Income

H_a= There is a significant relationship between the effect of income on investors risk perception in the investment decision.

3. METHODS AND PARTICIPANTS

The present study is exploratory cum descriptive in nature. Both secondary and primary sources of data were used for the research. The secondary data were collected for the support of various questions such as what supports the determinant of risk perception. The primary data were obtained from conducting the retail investors' survey with 437 filled responses, through self-designed questionnaire method, the survey was also conducted from the geographical area of Delhi NCR region. The Questionnaire was divided into two parts. In the first part, the questions were directly related to demographics like the gender, age, income. In the second part of the questionnaire, respondents were asked to give their responses on five-point Likert scales of ten statements of risk perception. In the given scales 1 indicates "Strongly disagree" 2 is "disagree" 3 is "undecided" 4 is "Agree" and 5 indicates "Strongly Agree". Of The reliability of the investors' perception in investment decision making are measured by calculating Alpha Coefficient of 0.72, often items, which satisfy the criteria of further study. The criteria for the selecting the responses are judgmentally basis, where the presumptions are made from retail investors' perception and experience towards their investment decision making. Based on the above criteria we calculated the median value from all sum of respondents for categorising the investors' risk perception in investment decision (i.e. Low risk perception (LRP)< Median Value <High risk perception (HRP). The data were tabulated and analysed with the help of SPSS. The statistical tools were used for analysis include Mean, Standard Deviation and Analysis of Variance (ANOVA).

5. ANALYSIS AND DISCUSSIONS

5.1. Description of Investor profile.

Table – 1 : Investor Profile and Descriptions

VARIABLES		GENDER				TOTAL	
		MALE		FEMALE			
		COUNT	%	COUNT	%	COUNT	%
AGE	LESS THAN 30	110	25.2	41	4.4	151	34.6
	31-40	166	38	51	11.7	217	49.7
	41- ABOVE	64	14.6	5	1.1	69	15.7
		340	77.8	97	17.2	437	100
INCOME	LESS THAN 2 LAKH	69	15.8	20	4.6	89	20.4
	2-4 LAKH	88	20.1	36	8.2	124	28.4
	4-6 LAKH	113	25.9	31	7.1	144	33
	6-8 LAKH	47	10.8	10	2.3	57	13
	8 LAKH AND MORE	23	5.2	-	-	23	5.2
TOTAL		340	77.8	97	22.2	437	100

Table.1 describes the investors' profile and the personality of the investors' which includes gender, age groups and incomegroups. Regarding Gender age and incomedifferences,the study forgo with the 437 participants responded the full questionnaire in the retail investor survey, out of which 77.8 per cent (i.e. 340) of respondents were male and remained 22.2 per cent (i.e. 97) of the sample respondents were female. Thus, the result indicates that female participant in the investment front is still away from the male opponent.

In case of age of respondents, 49.70 per cent of majority investors were in the age group between 31-40 years of old, as compared to others like 34.6 per cent in between 30 years (less than 30) and 15.8 % were more than 40 years of early investors'. The cross-tab analysis results between age and gender reveals that 38 per cent of the male respondents were under the age group of 30-4 years of old followed by 25 per cent (less than 30) and 14.6 per cent (40-above) as compared to female respondent of 11.7 per cent (31-40), 4.4 per cent (less than 30) and 1.1 per cent (40-above).This indicates that the age group between 31- 40 years of old is more prone towards investing into stock.

5.2. Descriptive Statistics.

Table.2. Descriptive statistics of Investor' risk perception on investment decision.

VARIABLES	Investor' Perception on Investment Decision			
	Low-Risk Perception (LRP)		High-Risk Perception (HRP)	
	Mean	SD	Mean	SD
Gender	1.24	0.428	1.20	0.402
Age	1.76	0.679	1.87	0.689
Income	2.51	1.066	2.58	1.16
N= 437	229		208	
Median = 36	*Sources : Author Computed Data*			

Table.2. Describes the descriptive statistics of investors risk perception on investment decision which is categories as low-risk perception, which can define as the investors'who's'average score below the median valueare called low-risk perception and the investors' whose average score are above the median value is called high-risk perception, among the different independent variables. The table also says out of the total sample of 437 respondent. Out of which 229 respondents have a low-risk perception in investment decision making with the overall mean value of the different independent categorical variable with gender 1.24 (SD of 0.428), age 1.76 (SD of 0.679) and income 2.51 (SD of 1.066). As compared to that of the mean score of all the respondents who perceive high risk on investment decision in different groups like gender 1.20 (SD of 0.402), age 1.87 (SD of 0.689) and income 2.58 (SD of 1.16).

5.3. Homogeneity of variance among the independent variable

Table-3 : Levene's test of equality of variances

VARIABLES	Levene's Statistic	df1	df2	Sig.
GENDER	5.238	1	435	.023
AGE	2.081	2	434	.126
INCOME	1.336	4	432	.256

Dependent Variable : IRp

Sources : Author computed data.

Table.3. Depicted thehomogeneity of variance among the independent variable like gender, age and Income with the dependent variable of investors' risk perception (IRp). The assumption of Levene's test of equality says that the significant values for two independent groups' variable are more than .05, which is.380 and .108. This indicates that the equality of variance exists among the age and income and the mean score of all categorical of the independent variable is same. Therefore, we can say that there is no significant difference between the age and income categories on the dependent variable, i.e. the investor risk perception. In the case of gender, the significant value is less than .05 which is .023. This indicates that the theory of euqality in gender difference are not same with the mean in risk perception which means male and female in the investment decision have different risk perception.

5.4. The result of Analysis of Variances (ANOVA)

Table-4 : ANOVA Result

		ANOVA				
	Variables	Sum of Squares	df	Mean Square	F	Sig.
GENDER	Between Groups	0.230	1	0.230	0.921	0.338
	Within Groups	108.767	435	0.250		
	Total	108.998	436			
AGE	Between Groups	.597	2	0.299	1.196	0.304
	Within Groups	108.400	435	0.250		
	Total	108.998	436			
INCOME	Between Groups	1.148	4	0.287	1.150	0.333
	Within Groups	107.850	435	0.250		
	Total	108.998	436			
Dependent Variable : IRp (Investors' risk perception)						
Sources : Author Computed data						

Table-4 : Describes the ANOVA result of between group and the within groups of the different independent variable like gender age and income. The result shows that the significant value is greater than 0.05 % level of significance among different independent variables like 0.338, 0.304 and 0.333 for gender, age and income which means we fail to accept the null hypothesis.

6. FINDINGS.

Based on the research objective the effect of gender, age and income on investors' risk perception in the investment decision and the hypothesis. The study found that male respondents (77.8 %) are more than the female (22.2%) shown in investors profile table no.1. For the hypothesis as concern ANOVA result shows in terms of gender that there is no significant difference in risk perception of male and female in investment decision. Similarly, for age groups, there is no significant difference among different age group in risk perception of investors 'in decision making. For Income group, it is found that there no significant difference in investors' risk perception in different income groups in investment decision. This is because the significant score in ANOVA results (Table no.4) for the entire three independent group variable i.e.0.338, 0.304 and 0.333 for gender, age and income are more than that of the .05 % of significant. Therefore, the result of all three variables like gender, age and income shows a similarity in the mean scores on the dependent variable. Hence, all the three independent variable gender, age and income are failed to accept the null hypothesis for dependent variable.

7. CONCLUSION.

By looking into the objective of the study, the present study concluded that the effect of gender, age and income are adversely affected investors' perception, which is shown in the literature review. However, in this study, the mean score for equality of variance are same for age groups and between income groups as compared to gender, which shows the inequality of mean score between male and female. Hence, it can be said that the independent grouping variable like gender, age and income does not affect so much to investors' perception towards risk as the study is statistically significant among the dependent group variable. While looking into the investor profile, we can also make differentiate among male participants are more advanced than the female participants in investment matters. In terms age differences the level of risk remains the same for investors' perception in investment decision for age groups.

Regarding Income, sometimes individual income does not affect the perception of the investor. Because it is not necessary that one has the high income, he or she should look high risk or vice-versa. At the end, the study also concluded that for the fulfilment of the objective that the effect of gender, age and income on investors risk perception in the investment decision. However, in general terms of individual investors' perception are almost similar in conceptually, but in practice, the situation is something else, personal risk differs with the uncertainty of time frame and domain knowledge that may be by different race and class of individual.

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