Factors Influencing Investment Decision of Generations in India:An Econometric Study

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ABSTRACT

This study aims to gain knowledge about key factors that influence investment behavior and ways these factors impact investment risk tolerance and decision making process among men and women and among different age groups. The individuals may be equal in all aspects, may even be living next door, but their financial planning needs are very different. It is by using different age groups along with Gender that synergism between investors can be generated. In this context, demographics alone no longer suffice as the basis of segmentation of individual investors. Hence keeping this in mind, the present study is an attempt to find out Factors which affects individual investment decision and Differences in the perception of Investors in the decision of investing on basis of Age and on the basis of Gender. The study concludes that investors' age and gender predominantly decides the risk taking capacity of investors.

Keywords: *Risk Coverage, Perceptual factors, Perception of Investors, Security, Opinion Leadership, Awareness of Investment options, Time Duration.*

1. INTRODUCTION

Many individuals find investments to be fascinating because they can participate in the decision making process and see the results of their choices. Not all investments will be profitable, as investor wills not always make the correct investment decisions over the period of years; however, you should earn a positive return on a diversified portfolio. Investing is not a game but a serious subject that can have a major impact on investor's future wellbeing. Virtually everyone makes investments. Even if the individual does not select specific assets such as stock, investments are still made through participation in pension plan, and employee saving programme or through purchase of life insurance or a home or by some other mode of investment like investing in Real Estate (Property) or in Banks or in saving schemes of post offices. Each of this investment has common characteristics such as potential return and the risk you must bear. The future is uncertain, and you must determine how much risk you are willing to bear since higher return is associated with accepting more risk. (Lopes, 1987)

The individual should start by specifying investment goals. Once these goals are established, the individual should be aware of the mechanics of investing and the environment in which investment decisions are made. These include the process by which securities are issued and subsequently bought and sold, the regulations and tax laws that have been enacted by various levels of government, and the sources of information concerning investment that are available to the individual.

Today the field of investment is even more dynamic than it was only a decade ago. World event rapidly events that alter the values of specific assets the individual has so many assets to choose from, and the amount of information available to the investors is staggering and continually growing. The key to a successful financial plan is to keep apart a larger amount of savings and invest it intelligently, by using a longer period of time. The turnover rate in investments should exceed the inflation rate and cover taxes as well as allow you to earn an amount that compensates the risks taken. Savings accounts, money at low interest rates and market accounts do not contribute significantly to future rate accumulation. While the highest rate come from stocks, bonds and other types of investments in assets such as real estate. Nevertheless, these investments are not totally safe from risks, so one should try to understand what kind of risks are related to them before taking action. The lack of understanding as how stocks work makes the myopic point of view of investing in the stock market (buying when the tendency to increase or selling when it tends to decrease) perpetuate. To understand the characteristics of each one of the different types of investment you must have enough financial knowledge.

Furthermore, inflation has served to increased awareness of the importance of financial planning and wise investing. More Inflation is a worry for each and every individual. Due to Inflation value of your money in future will decrease. To Cope up this, Investors wants to invest their money and earn certain rate of return which is more then rate of Inflation. Having clear reasons or purposes for investing is critical to investing successfully. Like training in a gym, investing can become difficult, tedious and even dangerous if you are not working toward a goal and monitoring your progress. In this Paper we examine some common reasons for investing.

In this Paper we are trying to find out

- Factors which affects individual investment decision.
- Difference in perception of Investors in the decision of investing on the basis of Age.
- Difference in perception of Investors in the decision of investing on the basis of Gender.

The remainder of this paper is organized into seven sections. The Next (Second) begins with a brief review of previous research in this area. The third section provides a brief description of the research methodology employed in this study. Descriptive data analysis and the reliability and validity of the instrument are reported in the fourth section. The Descriptive Analysis of generated factors is examined in the fifth section. Finally the Regression Analysis is reported in the Sixth Section.

Finally in the seventh section, The paper Concludes with a discussion on the implications of these findings for management of Investing Companies and others to consider this in deciding the policies feature and other things.

2. LITERATURE REVIEW

Earlier studies have been carried out to determine the pattern of Institutional investors Investment but Studies dealing with Investment pattern of individual investors are very few. Previous Studies mainly concentrate on Differences in individual investing pattern on the basis of Gender. Differences on the basis of Age in Investment pattern is new avenue for research. Earlier studies conclude that women invest their asset portfolios more conservatively than their male counterparts. Women's investment has historically been lower than men's for several reasons, including Social and various demographic concerns. However the differences continue to be significant even after controlling for individual Characteristics (Schmidt & Sevak, 2006).In making any Investment Decision Risk Aversion and Financial Literacy is a major factor. Although different literature available on risk define it variedly but in common the word risk refers to situations in which a decision is made whose consequences depend on the outcomes of future events having known probabilities(Lopes,1987).

There is evidence that Women are more risk averse then men in general and this translates to investing in less risky assets in their investment plans**(**Julie R. Agnew,either,2003).Differences in financial literacy between men and women may also explain differences in their investment decisions. There is some research on individual investors for e.**g.** Langer (1975) finds that self-reported risk tolerance does the best job of explaining differences in both portfolio diversification and portfolio turnover across individual investors.

Dunham (1984) admits that although personality factors can change over an extended period of time, the process is slow and tends to be stable from one situation to another. Therefore, these factors are expected to influence the decision making behavior of an individual. Barnewall (1987) finds that an individual investor can be found by lifestyle characteristics, risk aversion, control orientation and occupation. Barnewall (1988) suggests the use of psychographics as the basis of determining an individual's financial services needs and takes one closer to the truth from the customer's perspective of need to build a marketing program.

Statman (1988) observed that people trade for both cognitive and emotional reasons. They trade because they think they have information, when in reality they make nothing but noise and trade only because trading brings them joy and pride. Trading brings pride when decisions made are profitable, but it brings regrets when they are not. Investors try to avoid the pain of regret by avoiding realization of losses, employing investment advisors as scapegoats and avoiding stocks of companies with low reputations. Harlow and Brown (1990) observes that psychologists tend to believe that an individual's choice is primarily determined by factors unique to the particular decision setting, whereas economists assume that there is some individual-specific mechanism playing a common role in all economic decisions.

Warren *et al.* (1990) and Rajarajan (2000) predict individual investment choices (e.g., stocks, bonds, real estate) based on lifestyle and demographic attributes. These investors see rewards as contingent upon their own behavior (Rajarajan, 2002). Gupta (1991) argues that designing a portfolio for a client is much more than merely picking up securities for investment. The portfolio manager needs to understand the psyche of his client while designing his portfolio. Risk tolerant investors behave as though they can control risk. This suggests that risk tolerance serves as a proxy for an 'illusion of control' and thus overconfidence [Madhusoodanan (1997); Odean (1998); Barber and Odean (2001); Benartzi and Thaler (2001); Gervais and Odean (2001); and Daniel and Huberman (2003)].

Barber and Odean (2000) explored the impact of intuitive thinking on investment preference to study the experience of actual investors. The ET Retail Equity Investor Survey (2004) in the secondary market identified different categories of investors based on their characteristics and attitude towards secondary market investments. A study by on 245 Kuala Lumpur Stock Exchange individual investors from Kula Lumpur and Petaling Jaya, reveal that there are some differences between active and passive investors in terms of demographic and psychographics, investment characteristics as well as investment behavior.

Karthikeyan (2001) has conducted research on Small Investors Perception on Post office Saving Schemes and found that there was significant difference among the four age groups, in the level of awareness for kisan vikas patra (KVP), National Savings Scheme (NSS), and deposit Scheme for Retired Employees (DSRE),and the Overall Score Confirmed that the level of awareness among investors in the old age group was higher than in those of young age group. NO differences were observed among male and female investors except for NSS and KVP.

National Council of Applied Economic Research (NCEA) (1961) 'Urban Saving survey' noticed that irrespective of occupation followed and educational level and age attained, households in each group thought saving for the future was desirable. It was found that desire to make provision for emergencies were a very important motive for saving for old age. Securities and Exchange Board of India (SEBI) and NCEAR (2000) 'Survey of Indian Investors' had been report that Safety and Liquidity were the primary considerations which determined the choice of an asset. In this paper we are trying to find out the Factors which influence individual investment decision, the difference in the perception of Investors in the investing process on the basis of Age and the difference in perception of the Investors on the basis of Gender.

The present study aims to put on some knowledge about key factors that influence investment behavior and ways these factors impact investment risk tolerance and decision making process among men and women and among different age groups. The individuals may be equal in all aspects, but their behavior is different in same situation. Earlier studies did research but they did this only gender wise, in this study we are trying to find out the factors which affects individual investment decisions by considering both age and gender wise. Hence keeping this in mind, the present study is an attempt to find out Factors which affects individual investment decision and Differences in the perception of Investors in the decision of investing on basis of Age and on the basis of Gender.

3. METHODOLOGY

This study follows the survey research methodology. Based on previous research in related areas, a questionnaire was constructed to measure the investment pattern of individuals on the basis of Age and Gender. After pilot testing, the questionnaire was administered to a group of people whom age is more than 22 years. Here we are using minimum age as 22 years since we are considering that an individual starts earning after this age. The data were analyzed using standard techniques of factor analysis, Regression analysis and other basic techniques. The remainder of this section gives a brief description of the sample, the survey instrument and the survey procedure.

3.1 Sample

The target groups chosen for this study were the investor, who regularly invests. They will invest fewer amounts but invest regularly according to their earning. The target groups include various types of Investors such as on the basis of areas whether they belong to rural or urban areas. On the basis of Profession whether they are working in Government or Private Sector and On the basis of annual income and annual amount they invest.

3.2 Survey Instrument

A four page questionnaire consisting of six subscales was developed. In the first subscale, demographic information such as age, gender, marital status, region to which they belong, profession, individual income levels were sought. In the remaining five subscales, questions were adapted from similar instruments reported in the literature by previous researchers to measure the investment pattern of individuals on the five variables under consideration, viz. investing background, opinion leadership, Duration of investment, Awareness of Investments, Security.

Each question in the first subscale (Investing Background) was answered in Yes or No. Each question in the remaining four subscales of the questionnaire was scored on a 5 point Likert Scale from (1) highly dissatisfied to (5) highly satisfied. The regression analysis is used to find out factors which have significant impact on Investors. Regression Analysis is discussed in section 6. The theoretical Model is given below.
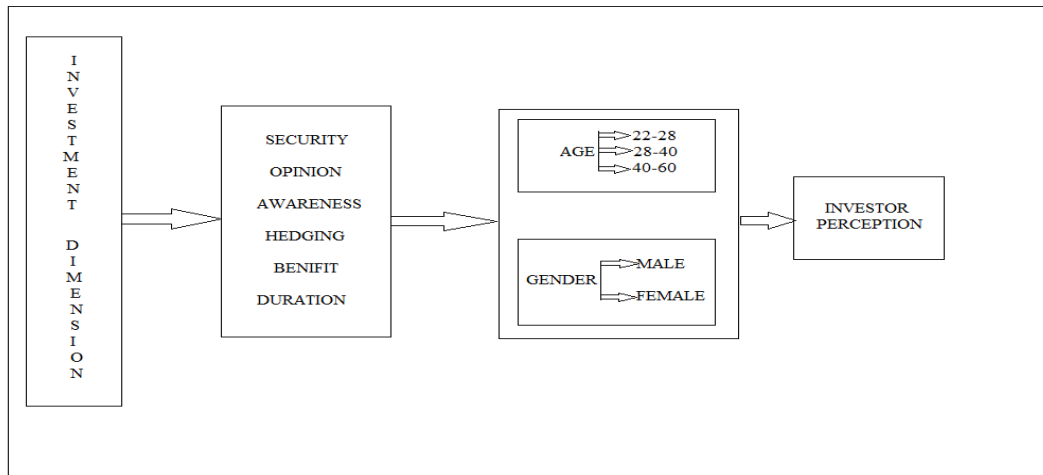

Figure 1: Theoretical Model for Regression Analysis

3.3 Survey Procedures

The instrument was first pilot tested on a small group of individuals. Preliminary analysis of the pilot data showed that those completed the survey form was generally happy with the questions asked. Minor changes were made to the subscale statements to improve clarity of the presentation. Questionnaires were hand delivered to many investors while personal interviews have also been taken. To ensure a degree of objectivity in the survey data, selected investors were personally interviewed by us to verify the accuracy of the self reported data. As far as our concern, the self reported data were found to be reliable.

4. DATA ANALYSIS

The data collected from the survey was scored and entered in the computer for analysis by the SPSS (17.0) package. Some preliminary results relating to the sample characteristics, the reliability of the questionnaire are reported in this section.

4.1 Respondent Characteristics

We made our questionnaire online and also collected data by distributing the forms personally. Of the 700 questionnaire forms distributed, 196 forms were returned; representing a response rate of 71% but out of this 47 forms were not considered for research since some of them are not properly filled . So the final ratios of forms which are considered for research are 65 %., which is considered an acceptable level of response rate in the type of research. Details of respondents such as Age, Gender, profession, and Annual Income are depicted in Table 1.

4.2 Reliability of Scale

To assess the reliability of the instruments, the Cronbach (1981) alpha coefficients for the total questionnaire and the five subscales were calculated and reported in Table 2. It is noted that all items were found to have a mean value ranging from 3.57 in the 5 point likert scale, where a value of 2.5 is regarded as neutral point. This indicates that ratings from the respondents tend to lie on the positive side of the rating scale. Furthermore, the standard deviations were found to range from .67 indicating a relatively high degree of consensus among the respondents in their perception of the rating of variables in the questions.

Table 1 Details of respondents

		No. of respondents	*Percentage (%)*
Age	22-28	233	51.10%
	28-40	180	39.50%
	40-60	43	9.40%
Gender	Male	270	59.20%
	Female	186	40.80%
Profession	Govt. Service	134	29.40%
	Private Service	212	46.50%
	Professional	110	24.10%
Annual Income	1.5- 3 lakh	44	9.60%
	3-5 lakh	212	46.50%
	Above 5 lakh	200	43.90%

Table 2 Reliability Statistics

Cronbach's Alpha
0.657

The Cronbach alpha is the most widely used index for determining internal consistency (Kerlinger 1986).It has been generally accepted that in the early stages of the research on hypothesized measure of construct, reliabilities of 0.50 or higher are needed, while for widely used scales, the reliabilities should not be below0.6 (Nunnally, 1978).In the current survey, all subscale alpha coefficients exceed 0.5 with an overall alpha value 4664 for the entire questionnaire. The high alpha value in all five subscales confirms the homogeneity of the items comprising them, and indicates acceptable level of reliability.

4.3 Perceptual factors (Identification of factors)

To understand the Investment Pattern of Individuals (Investors) 18 statements were identified. Each statement describes one aspect of perception. The opinions of investments were collected in Likert five point scales. Studying all 18 statements would have been tedious and, in fact not necessary also. So factor analysis was used to reduce variables into smaller number of manageable variables by exploring common dimensions available among the variables. The variable which had common response and high correlation were grouped under a common factor. Variables which did not have any significant effect were suppressed. The reduced factors should be distinct from each other.

First the suitability of data for the purpose of factor analysis was tested using two analyses, namely KMO test and Bartlett's test of Sphericity. The Kaiser- Maiyer-Olkin Measure of sampling adequacy is a statistic which indicates the proportion of variance in the variables which might be caused by new factors. High values generally indicate that a factor analysis may be useful with the data. If the value is less than **0.50**, the results of the factor analysis probably will not be very useful.

Table 3 KMO Value

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	0.591
Bartlett's Test of Sphericity Approx. Chi-Square	2.65E+03
df	153
Sig	0

Table 3 shows the KMO value is 0.591 which signifies that the factor analysis is useful with the data. The chi Square value for Bartlett's test of Sphericity is 4646 and the significant value is 0.0000 which is significant at more than 99 percent level of confidence. This means data are very suitable for factor analysis.

The next step in the process is to decide about the number of factors to be derived. The rule of thumb is applied to choose the number of factors for which 'Eigen values' with greater than one is taken by using Principal component analysis method. The component matrix so formed is further rotated orthogonally using varimax rotation algorithm

Table 4 Perceptual Factors with Percentage of Variance Explained

Factors	Eigen Value	% Variance Explained	% Cumulative Variance
Security	3.231	17.949	17.949
Opinion	2.368	13.156	31.105
Awareness	2.042	11.346	42.451
Hedging	1.718	9.544	51.995
Duration	1.361	7.562	59.557
Benefits	1.118	6.211	65.768

By performing factor analysis 18 variables are first reduced to 14 variables and then further reduced into six component factors (Table 4). Each component factor includes some statements which are otherwise called variables. Each variable represents perception of investors about one particular aspect of investment variable like investment institutions and statements under each factor explain the feature of such perceptual factor. The six perceptual factors which have Eigen value more than unity alone is taken for consideration. There are separate tables for factor loading of each factor. The six perceptual factors which have Eigen values more than unity alone are taken for consideration. The six perceptual factors represent around 65 percent of total variance which is very significant and the remaining variance is explained by other factors. The first factor security accounts for around 18 percent of total variance and other factors accounts for remaining 47 percent variance.

The list of seven component factor along with their labels and variables (statements along with loading) included under these factors are listed below.

4.3.1 Security
Table 5 shows that this factor contains variables related to the purpose of Investors. Basically this factor is move around future safety. As all the variables included under this component factor are related to future needs which may be any emergency or known, this factor can be called as security. They also considered security as the most important criterion before making any investment.

4.3.2 Opinion
Table 6 shows that this factor contains variables related to suggestions form other persons before making any investment. The investor who are intelligent and risk averse always wants to take suggestions from peers, financial expert or any share brokers.

4.3.3 Awareness
Table 7 shows that this factor contains variables related to the awareness of investors about various financial plans and basic knowledge about how to invest. The investors feel that awareness is the most important factor before making any investment decision. The public also states that the duty of the government is not only to offer attractive schemes but also to make the people aware of those schemes by giving schemes.

4.3.4 Hedging
Table 8 shows that this factor contains variables related to the precaution of risk. The investors feel that before making any decision about investments, it is good to take suggestions from experts of this field and always go for large duration investment, since this option gives more time to evaluate investment.

4.3.5 Duration

Table 9 shows that this factor contains variables related to time duration of investment. Respondents were asked to indicate the time duration they devoted for the investment activities. The result indicates that investors do not devote much time in Investment activities. Which imply that peoples are already aware of various financial plans and other Investment options? The other reason behind less devotion of time is due to other engagement in Life.

4.3.6 Benefits

Table 10 shows that this factor contains variables related to benefits of Investment. There are various benefits of Investment which differs from person to person. For e.g. someone invests to take advantage of Tax Benefits, someone invest for capital growth, someone invest for protection from inflation and for many other reasons.

4.3.7 Not necessary

There are some factors which are neglected since they are not reflecting any impact on Investment Pattern. We have not considered these factors in our analysis.

Table 5: Factor Loading for Security factor

Variables	*Factors Loading*
invest to meet my family needs in future	.762
invest to meet emergency needs	.707
invest in 2-5 years investments	.704
invest to live a safe and secure life	.632
Capital growth is the reason for investment	.519

Table 6: Factor Loading for Opinion Factor

Variables	*Factor Loading*
take suggestion from peers	.811
Like to invest in more than 5 years	.789
take Suggestion from relatives before investments	.695

Table 7 Factor Loading for Awareness Factor

Variables	*Factor Loading*
having good knowledge of investment plans	.923
having good knowledge of financial planning	.904

Table 8: Factor Loading for Hedging Factor

Variables	*Factor Loading*
Protection from inflation is reason for investment	.777
Like to invest in more than 5 years	.658
take Suggestion from financial advisor before investments	.856

Table 9 Factor Loading for duration Factor

Variables	*Factor Loading*
like to invest in less than 1 year investment	.856

Table 10 Factor loading for benefits Factor

Variables	*Factor Loading*
invest to take advantage of tax benefits	.754
Risk coverage is reason for investment	.856

5. Descriptive Analysis of Factors
5.1 Basis of generations (Age)

The primary purpose of this research was to identify the most important factors which influence investment pattern of the persons in India. Based on literature review it was also hypothesized that there would be differences in the investing pattern of Individuals and also basis of gender. The study also attempted to identify what are the most important factors which they would prefer to consider before making any investment. Mean and SD Scores of Different factors of all age group studied is depicted in Table 11.

Table 11 Descriptive Analysis of Factors on the basis of Age

	22-28 Years		28-40 Years		40-60 Years		F value
	Mean(S.D.)	Rank	Mean(S.D.)	Rank	Mean(S.D.)	Rank	
Security	14.26(1.52)	3	14.70(1.29)	2	15.32(.64)	1	12.760
Opinion	7.28(1.14)	2	7.21(1.01)	3	8.06(.88)	1	11.662
Awareness	5.35(1.28)	3	5.36(1.26)	2	5.76(.52)	1	.005
Hedging	5.07(.824)	3	5.34(.77)	2	5.35(.375)	1	16.455
Benefits	2.95(.34)	3	2.99(.217)	2	3.05(.366)	1	.310
Duration	2.42(.50)	2	2.38(.559)	3	2.49(.526)	1	2.258

Factor I, was labeled as "Security". While comparing the means score and Standard Deviation value of different age group, it was found that the mean score of age group (40 – 60 Years) is the highest (15.32) followed by age group (28 - 40 Years (14.70)and lowest in age group (22 - 28 Years) (14.26). We have taken the hypothesis that "there are no significant differences of security in all age group". Since, F-values are 12.760 which are more than 10, so our hypothesis is accepted. Therefore, it can be concluded that there is no significant differences of security in all age group.

Factor 2, was labeled as "Opinion". While comparing the means score and Standard Deviation value of different age group, it was found that the mean score of age group (40 – 60 Years) is the highest (8.06) followed by age group (22 - 28 Years (7.28)and lowest in age group (28-40 Years) (7.21). We have taken the hypothesis that "there are no significant differences of Opinion in all age group". Since, F-values are 11.662 which are more than 10, so our hypothesis is accepted. Therefore, it can be concluded that there is no significant differences of opinion in all age group.

Factor 3, was labeled as "Awareness". While comparing the means score and Standard Deviation value of different age group, it was found that the mean score of age group (40 – 60 Years) is the highest (5.76) followed by age group (28 - 40 Years (5.36)and lowest in age group (22 - 28 Years) (5.35). We have taken the hypothesis that "there are no significant differences of Awareness in all age group". Since, F-values are .005 which is less than 10, so our hypothesis is rejected. Therefore, it can be concluded that there is significant differences of awareness in all age group.

Factor 4, was labeled as "Hedging". While comparing the means score and Standard Deviation value of different age group, it was found that the mean score of age group (40 – 60 Years) is the highest (5.35) followed by age group (28 - 40 Years (5.34)and lowest in age group (22 - 28 Years) (5.07). We have taken the hypothesis that "there are no significant differences of Hedging in all age group". Since, F-values are 16.455 which are more than 10, so our hypothesis is accepted. Therefore, it can be concluded that there is no significant differences of Hedging in all age group.

Factor 5, was labeled as "Benefit". While comparing the means score and Standard Deviation value of different age group, it was found that the mean score of age group (40 – 60 Years) is the highest (3.05) followed by age group (28 - 40 Years (2.99) and lowest in age group (22 - 28 Years) (2.95). We have taken the hypothesis that "there are no significant differences of Benefit in all age group". Since, F-values are .310 which is less than 10, so our hypothesis is rejected. Therefore, it can be concluded that there is significant differences of Benefit in all age group.

Factor 6, was labeled as "Duration". While comparing the means score and Standard Deviation value of different age group, it was found that the mean score of age group (40 – 60 Years) is the highest (2.49) followed by age group (22-28) Years (2.42)and lowest in age group (28-40 Years) (2.38). We have taken the hypothesis that "there are no significant differences of Duration in all age group". Since, F-values are 2.258 which are less than 10, so our hypothesis is rejected. Therefore, it can be concluded that there is significant differences of Duration in all age group.

5.2 Basis of Gender

From the above analysis it was observed that the factors Security, Opinion and Hedging influence the investment pattern. So, to get better picture of factors influencing the investment pattern it is better to analyze the whole result based on gender wise. It has been proposed hypotheses that there are no significant differences of factors on the basis of gender. We have applied Levine's F-test Equal variance From the Table 12, it was observed that out of six factor that we studied F value of Hedging is the only one factor whose F value is greater than 10 (11.792) so only hypothesis "there are no significant differences of hedging on the basis of gender" is accepted rest all of the Hypothesis are rejected while F values for other factors is as follows Security (.792) Opinion (3.934) Awareness (.613) Benefit (.054) Duration (.878).

Table 12 Descriptive Analysis of Factors on the basis Gender

	Male		*Female*		*F Value*
	Mean(S.D.)	*Rank*	*Mean(S.D.)*	*Rank*	
Security	14.58 (1.39)	1	14.46 (1.43)	2	.792
Opinion	7.24 (1.13)	2	7.44(1.02)	1	3.934
Awareness	5.31 (1.23)	2	5.40(1.19)	1	.613
Hedging	5.13(.77)	2	5.40(.83)	1	11.792
Benefits	2.97(.28)	1	2.43(.54)	2	.054
Duration	2.38(.51)	2	2.98(.32)	1	.878

6. Regression Analysis

The purpose of this section is to examine that out of six perceptual factors which have significant impact on different age group and on the basis of gender. Some of the smaller frequencies in the original categories have been merged in the analysis. The results of regression analysis are explained below. We have applied step wise regression model for both age and gender wise.

Three Models for Age group (22- 28) years are generated. Four Models for age group (28-40) Years are generated and Five Models for age group (40-60) Years are generated. Two models for male and two models for females are derived. On the basis of high R square value we accepted model 3 for (22-28 years) age group, model 4 for (28 -40 years) age group and model 5 for (40-60 age group) and their respective second model for males and females. The detailed summary is given below.

6.1 Analysis of models on basis of Age

The result of regression analysis shows that model 3 for (22-28 years), model 4 for (28-40 years) and model 5 for (40-60 years) age group are accepted. A brief summary for the entire five models is given in Table 13.From the Table it is seen that R square value for model 3 is highest for 22-28 years age group, so model 3 is accepted, model 4 is accepted for 40-60 age group since its R square value is highest and model 5 is accepted for 40-60 age group since its R square value is highest among others models derived. Detail is given in Table 13.

The used model is
$Y_i = \alpha_i + \beta_i * X_i$

i=1, 22-28 age group
i=2, 28-40 age group
i=3,   40-60 age group
α_i = Intercept

$$\beta_i = \text{Coefficient of Factors}$$

Accepted model 3 for 22-28 years Age group comprises of 3 factors out of 6 factors. Opinion **(β=.174,t=4.865**

and $p < 0.05$) Awareness (β=.147,t=4.574 and $p < 0.05$) and benefits (β=.249,t=2.058 and $p < 0.05$).This implies that the most dominant factor among 22-28 years age group is Benefits which is followed by Awareness and then Opinion. Which in turn shows that persons belong to this age group are generally more risk takers and they are more eager to know about different types of Schemes which are available in market. They also not feel shy in taking suggestions from the expert or any other, this also shows their eagerness.

Accepted Model 4 for 28-40 age groups comprises of 4 factors out of 6 factors. Opinion (β=.220,t=5.421 and $p < 0.05$), Awareness (β=.115, t=3.671 and $p < 0.05$), Hedging (β=.157,t=2.923 and $p < 0.05$) and Security (β=.083,t=2.482 and $p < 0.05$). This implies that the most dominant factor among 28-40 years age group is hedging which is followed by Awareness then Security and then Opinion, which in turn shows that persons belong to this age group are moderate risk takers. They can compromise their returns if more risk is their. The persons belong to this group are basically gives their maximum preference for saving or they wants to keep money safe for future use.

Accepted Model 5 for 40-60 age groups comprises of 5 factors out of 6 factors Benefits,(β=.243,t=4.085 and $p < 0.05$) Hedging (β=.853,t=15.435 and p<0.05), Security (β=.297,t=9.098 and $p < 0.05$) and Awareness (β=.143,t2.241 and $p < 0.05$) and Duration (β=.210,t=4.976 and $p < 0.05$). This implies that the most dominant factor among 40 -60 age groups is hedging which is followed by awareness then Duration then benefits and then security, which in turn shows that on persons belong to Age Group (40 – 60 Years).This imply that persons belongs to this group are risk averse peoples. They invest only in those types of investment which are risk free. They basically invest to take advantage of Tax Benefits. (See Table 15 for β and t-values of accepted models).

Table 13 Age based Regression Model

Models	22-28 Years			28-40 Years				40-60 Years				
	1	*2*	*3*	*1*	*2*	*3*	*4*	*1*	*2*	*3*	*4*	*5*
R^2	.085	.171	.186	.179	.219	.240	.266	.633	.794	.872	.918	.928
F	21.349	23.699	17.434	38.884	24.787	18.508	15.828	70.7	77.1	88.2	106.7	95.5
D.W.		2.055			2.055					3.116		

6.2 Analysis of models on basis of Gender

The result of regression analysis shows that their respective model no 2 is accepted for both males and females. A brief summary of the two models is given in Table 14. From the Table it is seen that R square value for model 2 is highest, so model 2 is accepted for males and for female's respectively. Detail is given in Table 14.

The used Model is

$Z_i = \mu_i + \theta_i * X_i$

i= 1   Male

                     i=2   Female

μ_i = Intercept

θ_i = Coefficient of Factors

Model 2 for males comprises of 2 factors out of 6 factors, Opinion (β =.203,t=6.521 and $p < 0.05$) and Awareness (β =.141,t=4.915 and $p < 0.05$).This implies that the dominant factor for males is Awareness which is followed by Opinion. Males are generally more risk takers and they are more eager to know about different types of Schemes which are available in market. They also not feel shy in taking suggestions from the expert or any other, this also shows their eagerness.

Model 2 for females comprises of 2 factors out of six factors. Hedging (β =.185,t=3.467 and $p < 0.05$) and Benefits (β =.346,t=2.494 and $p < 0.05$). This implies that dominant factor in case of females is Benefits which is followed by hedging. Which in turn shows that female are less risk takers. They will compromise

their returns if more risk is their. Females basically give their maximum preference for saving or they wants to keep money safe for future use. They invest only in those types of investment which are risk free. They basically invest to take advantage of Tax Benefits. (See Table 15 for β and t-values of accepted models).

Table 14 Gender based Regression Model

Models	Male		Female	
	1	**2**	**1**	**2**
R^2	.138	.210	.066	.097
F	42.973	35.422	12.998	9.793
D.W.	2.127		1.801	

Table 15 Regression Analysis for accepted Models

Factors/ Accepted Model	Age Group			Gender	
	22-28B(t)	**28-40B(t)**	**40-60B(t)**	**MaleB(t)**	**FemaleB(t)**
	Model-3	**Model-4**	**Model-5**	**Model-2**	**Model-2**
Security	-	-.083(-2.482)**	-.297(-9.098)*	-	-
Opinion	-.174(-4.865)*	-.220(-5.421)*	-	-.203(-6.521)	-
Awareness	.147(4.574)*	.115(3.671)*	.143(2.241)*	.141(4.915)	-
Hedging	-	.157(2.923)*	.853(15.435)*	-	.185*(3.467)
Benefits	.249(2.058)**	-	-.243(-4.085)*	-	.346**(2.494)
Duration	-	-	-.210(-4.976)*	-	-
R^2	.186	.266	.928	.210	.097
F	17.434	15.828	95.478	35.422	9.793
D.W.	2.055	2.055	3.116	2.127	1.801

(Parenthesis contains t- value, * implies P<=0.05 significance level)

7. CONCLUSION

It can be concluded that the modern investor is a mature and adequately groomed person. In spite of the phenomenal growth in the security market and quality Initial Public Offerings (IPOs) in the market, the individual investors prefer investments according to their risk preference. For e.g. Risk averse peoples chooses life insurance policies, fixed deposits with banks and post office, PPF and NSC. Occasions of blind investments are scarce, as a majority of investors are found to be using some source and reference groups for taking decisions. Though they are in the trap of some kind of cognitive illusions such as overconfidence and narrow framing, they consider multiple factors and seek diversified information before executing some kind of investment transaction. The purpose of this study was to determine whether the variables such as demographic characteristics (age, gender) and investment patterns could be used individually or in combination to both differentiate among levels of men and women investment decisions and risk tolerance and develop some guidelines to the investment managers to design their investment schemes by considering these views of individuals.

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