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Review Article

# Influence of Demographic Characteristics on Investment Decisions- Study of Behavioral Biases in College and University Teachers of Punjab

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**Abstract**

The present paper aims to study how the demographic characteristics of the respondents, College and University Teachers in Punjab, have an influence on their investment decisions by having an impact on their behavioral biases. Primary data from college and university teachers of Punjab has been collected through a mailed questionnaire. The findings revealed that there is a presence of behavioral biases amongst the respondents of the study. However, the effect of the demographic characteristics on behavioral biases was significant in only few of the behavioral biases taken as independent variables in the study. ANOVA was applied to test the significance of demographic characteristics on the behavior of investors while making investment decisions. The study has four dependent variables i.e. age, gender, designation and years of experience and eight independent variables which are behavioral biases namely herding bias, home bias, anchoring bias, representative bias, overconfidence bias, gambler's fallacy bias, hindsight bias and confirmation bias. Where the results turned out to be significant, Post Hoc Analysis was applied to test the specificity of the significance of the dependent variables.

**Introduction**

The discipline of Behavior Finance has only evolved with time. The traditional theorists of Finance overlooked the influence of Behavioral biases on Investment since their theories rested on two main assumptions that the investors are rational and the markets are perfect and all price related information is easily available. The 'rationalists' and the 'behaviorists' have been involved in discussions for almost two decades now on how rationally or irrationally the financial agents behave (McGuckian, 2013). Behavioral finance took a leaf from various other disciplines like sociology and psychology and confirmed that emotions play a significant role in financial decision making.

Although Behavioral Finance has grown in proportion in recent times but it cannot be said that it is not a new concept as it had its wings during 1970s when Kahneman and Tversky came out with their researches and concluded that behaviour of investors have an influence on their investment decision making. The discipline got a real push when Professor Daniel Kahneman of Princeton University was awarded with the prestigious Nobel Prize in Economic Sciences in the year 2002. Since then there has been a plethora of research work done in the field of Behavioral Finance. This research too is part of this wave of finding the extent of impact behavior has on the investment decisions of an individual. Though an investor tries to be as much rational as possible but the lack of available information brings biasness in the investment decision making process Prosad et al. (2014). The present paper tries to contribute in this field by studying the behavioural biases present amongst college and university teachers based on their demographic characteristics while making investment decisions.

**Research Gap**

After undergoing an extensive literature review it was found that there exists vast research in the field of behavioral finance like behavioral biases in stock market; AI and behavioral finance; Mutual funds and behavioral biases; and many more researches taking behavioral biases as their base. Also, research at micro level has been done considerably but the objective, region, variables, methodologies and outcomes vary from one research work to another. The behavioral biases amongst teachers (both college and university) while making investments are yet to be explored in India. The present research will help to identify the behavioral biases of college and university teachers while making investment decisions and how these biases are impacted by an individual's demographic characteristics.

**Literature Review**

Prosad et.al(2015)in the study, 'Behavioral biases of Indian investors: a survey of Delhi-NCR region' examined the presence of behavioral biases in Indian investors specifically overconfidence, excessive optimism or pessimism, herd behavior and the disposition effect by making use of Chi square test and Cronbach Alpha. They found that Behavioral biases depend on investors' demographics as well as their trading sophistication and men are more overconfident than women with regard to their knowledge of Indian stock market. Isidore and Christie (2018) in the article entitled, 'A Behavioral Finance perspective of the stock market anamolies' explained the anomalous behavior of the stock market which was unexplained by the classical theories. Gill and Bajwa (2018) through 'A study on Behavioral Finance, Behavioral Biases and Investment decisions' studied the impact of behavioral biases on individual investment decisions. Deshmukh and Joseph (2016) in their study titled, 'Behavioral Finance: An introspection of Investors Psychology' revealed that factors like perception, motivation, incentive potential, intensity of cues play a major role while forming an intention to invest in mutual funds. The study was conducted using AMOS 21 software to assess the impact of behavioral factors over mutual fund investment decision made by investors in Raipur city. Shankar and Babu (2014) in the article titled, 'The impact of Behavioral finance on Stock markets' found that gender plays an important role in stock market investments and most of the investors are male. Apart from gender, the application of ANOVA provided that the income also plays an important role in decision making. Anderson (2010) in the study entitled, 'Detecting Anchoring in Financial Markets' established that anchoring is indeed involved in the decision making of market participants. Filbeck et.al (2005) attempted to study the relationship between personality type and Expected Utility Theory risk tolerance using Factor Analysis. They inferred that individuals tend to act "normal" rather than rational while making investments and there is a non linear relation between personality and risk tolerance. Takeda et al. (2013) has focused on the financial literacy of investors. Dhar and Zhu,2006; Jonsson et al., 2017 opine that financial literacy can be related to individual differences in case of disposition bias. There is another strand of researchers that make use of demographic characteristics to explain the differences in the behaviour of individuals (Barber and Odean, 2001; Lin, 2011).

**Research Methodology**

The study comprises of 8 independent variables namely herding, home bias, anchoring bias, representative bias, overconfidence bias, gambler's fallacy, hindsight bias and confirmation bias. The dependent variables of the

study are the demographic characteristics of the respondents comprising of age, gender, designation and years of experience. The Questionnaire was made up with the help of online media/Google Documents. It was circulated through e-mail, social networking sites like WhatsApp, and other online platforms. The information was collected from 100 college and university teachers with the following details of their demographic profiles in relation to age, gender, designation and years of experience.

The questionnaire was distributed to 100 university and college teachers who are active in trading. The questionnaire comprised of four sections. The first fifteen questions from Section A seeking information related to financial literacy; next forty questions from Section B relating to behavioral biases; next five questions relating to problems faced by the respondents; and last seventeen questions studied the demographic characteristics of college and university teachers (respondents) in Punjab. Section A comprised of multiple choice questions relating to Financial Literacy while Likert Scale was used in Section B and C relating to behavioral biases and problems faced by the respondents of the study while making investment decisions and Section D had open ended and rating questions since it was meant for collecting demographic characteristics.

**Results and Discussions**

Demographic Classification of Respondents

Table 1 presents the demographic figures of the respondents. It shows that 50 per cent of the respondents are males, 49 per cent are females and 1 per cent preferred not to reveal their gender. This shows that both the genders are not equally distributed. As regards the age, 40 percent of the respondents are of less than 30 years, 42 percent between 31-40 years, 14 per cent between 41-50 years and 4 per cent with more than 50 years. This implies that the maximum respondents for the study fall in the age of 31-40 years. The break-up of the respondents in terms of their designation is: 8 per cent of the respondents are Lecturer/Guest faculty; 46 percent are Assistant Professors; 34 percent fall in the category of others; and Associate Professors and Professors accounted for 6 percent each. The ones in the others category are the ones who were earlier engaged in the field of teaching in college and universities and have either been retired or hold eminent positions in non-teaching field. The composition of the respondents in terms of Years of Experience is: 6 percent of the respondents have less than one year of experience; 46 percent between one to five years; 10 percent between 5-10 years; 16 per cent between 10-15 years; and 22 per cent of the respondents possess a rich experience of more than 15 years.

Table 2 to 9 depicts the results of the items of the questionnaire asked from the respondents based on heuristics. The total results reveal that the respondents are skewed towards the responses like agree, neutral and disagree.

Table 1: Demographic Characteristics of the Respondents

| Variable | Particulars | Frequency | Percentage |
|---|---|---|---|
| Gender | Male | 50 | 50.0 |
| | Female | 49 | 49.0 |
| | Preferred not to say | 1 | 1.0 |
| | Total | 100 | 100.0 |
| Age | Less than 30 years | 40 | 40.0 |
| | 31-40 years | 42 | 42.0 |

| | | | |
|---|---|---|---|
| | 41-50 years | 14 | 14.0 |
| | More than 50 years | 04 | 04.0 |
| | Total | 100 | 100.0 |
| Designation | Lecturer/Guest Faculty | 8 | 8.0 |
| | Assistant Professor | 46 | 46.0 |
| | Associate Professor | 6 | 6.0 |
| | Professor | 6 | 6.0 |
| | Others | 34 | 34.0 |
| | Total | 100 | 100.0 |
| Years of Experience | Less than 1 Year | 6 | 6.0 |
| | 1-5 Years | 46 | 46.0 |
| | 5-10 Years | 10 | 10.0 |
| | 10 to 15 Years | 16 | 16.0 |
| | More than 15 Years | 22 | 22.0 |
| | Total | 100 | 100.0 |

Table 2: Herding Bias

| S/N | | SD(%) | D(%) | UN(%) | A(%) | SA(%) |
|---|---|---|---|---|---|---|
| 1 | Other's decision towards a particular investment has an effect on my investment decision. | 4 (4%) | 16 (16%) | 34 (34%) | 42 (42%) | 4 (4%) |
| 2 | I get influenced by other people's pattern and kind of investments before making investment decisions. | 2 (2%) | 24 (24%) | 20 (20%) | 50 (50%) | 4 (4%) |
| 3 | Other's decision towards the volume and no. of investment plans impacts my decision to make an investment. | 10 (10%) | 18 (18%) | 26 (26%) | 42 (42%) | 4 (4%) |
| 4 | I react towards changes in stock market as per the moves of other investors. | 4 (4%) | 20 (20%) | 32 (32%) | 36 (36%) | 8 (8%) |
| 5 | I analyze the return on investment in the same manner as other people do. | 2 (2%) | 32 (32%) | 26 (26%) | 40 (40%) | 0 (0%) |

Results based on Herding Bias

Table 2 represents the results of herding behavior. As evident in the above table, high percentage of respondents agree to the questions signifying that decision of one investor does influence the decision of other investors in general. However as per the observations of the results on the basis of demographic characteristics, none of the

characteristics showed a significant impact. Thus herding bias comes naturally to people of different age, experience and positions.

Table 3: Home Bias

| S/N | | SD (%) | D(%) | UN(%) | A(%) | SA(%) |
|---|---|---|---|---|---|---|
| 1 | I believe Indian stock market is more reliable when investment is to be made. | 4 (4%) | 14 (14%) | 22 (22%) | 48 (48%) | 12 (12%) |
| 2 | I make investments in Indian companies due to easy access to local information | 2 (2%) | 14 (14%) | 22 (22%) | 52 (52%) | 10 (10%) |
| 3 | Investments in Indian companies give a sense of loyalty towards home country. | 2 (2%) | 18 (18%) | 30 (30%) | 36 (36%) | 14 (14%) |
| 4 | Investments in Indian companies make it easy to keep a regular track on the position of stocks. | 2 (2%) | 10 (10%) | 28 (28%) | 54 (54%) | 6 (6%) |
| 5 | Investments in Indian Companies contribute towards the growth of Indian economy. | 2 (2%) | 4 (4%) | 12 (12%) | 62 (62%) | 20 (20%) |

Results based on Home Bias

Table 3 represents the results of home bias. It can be seen from the table that majority of the respondents have neutral and agreed responses towards the statements. A notable change has been seen in the number of respondents agreeing to these questions as compared to the questions in the “Herding Bias” section which to some extent highlights the inclination of a majority of persons towards their mother land. Again on the scale of demographic characteristics, no significant impact was noticed which might be the result of the fact that the people in general, irrespective of their age, gender, designation show similar interest towards home grown companies.

Table 4: Anchoring Bias

| S/N | | SD (%) | D(%) | UN(%) | A(%) | SA(%) |
|---|---|---|---|---|---|---|
| 1 | I wait for the investments to reach at least the purchase price or the initial investment cost if the investment made is in a declining trend. | 2 (4%) | 12 (12%) | 38 (38%) | 38 (38%) | 10 (10%) |
| 2 | The previous price becomes the referral point for me to purchase any share or to make an investment in any other sector. | 4 (4%) | 16 (16%) | 18 (18%) | 54 (54%) | 8 (8%) |
| 3 | I predict the return on investment for the upcoming periods on the basis of the | 2 (2%) | 4 (4%) | 22 (22%) | 70 (70%) | 2 (2%) |

| | | | | | | |
|---|---|---|---|---|---|---|
| | current price of a company's share | | | | | |
| 4 | I consider the initial investment cost or purchase price of a share as a barometer for the success or failure of an investment. | 4 (4%) | 14 (14%) | 36 (36%) | 42 (42%) | 4 (4%) |
| 5 | The previous information relating to a company determines whether to withdraw (sell off) or hold the investment for quiet sometime. | 2 (2%) | 2 (2%) | 34 (34%) | 54 (54%) | 8 (8%) |

Results based on Anchoring Bias

Table 4 shows the results of anchoring bias. A higher percentage of respondent agreeing to the statements is an indicator of the fact that information present with the investor is an important factor based on which he/she takes the decision to invest. Although three of the four demographic characteristics did not show any significant impact, the "Age" did show signs of impact on the results. The respondents aged 40 years and above tend to be more biased in the sense that the investment decisions taken by them are driven by their instinct and probably the experience they have gained over the years.

Table 5: Representative Bias

| S/N | | SD (%) | D(%) | UN(%) | A(%) | SA(%) |
|---|---|---|---|---|---|---|
| 1 | I take a successful investment plan with a belief that it will continue to rise in future as well. | 2 (2%) | 12 (12%) | 8 (8%) | 56 (56%) | 22 (22%) |
| 2 | A current low return worries me and keeps me away from the prospects of high return from such an investment. | 4 (4%) | 12 (12%) | 24 (24%) | 40 (40%) | 20 (20%) |
| 3 | Recent trend of the market is the only factor which influences my investment decision. | 4 (4%) | 26 (26%) | 28 (28%) | 34 (34%) | 8 (8%) |
| 4 | I do not consider the past performance of a company before investing in a company. | 18 (18%) | 42 (42%) | 18 (18%) | 20 (20%) | 2 (2%) |
| 5 | The current returns available in an investment plan help me in evaluating the investment proposal and then arriving at a decision to invest in. | 4 (4%) | 6 (6%) | 22 (22%) | 58 (58%) | 10 (10%) |

Results based on Representative Bias

Table 5 represents results of representative bias. It can be seen from the table that majority of the respondents agreed with majority of the statements. A closer look at the results reveals that the "years of experience" is the only demographic characteristic to have a significant impact. As also evident in the Post Hoc Analysis done in Table No.10, the people with experience in excess of 10 years tend to be biased while taking investment decisions in the sense that the decisions are more likely to be based on the current trends rather than the past performances.

Table 6: Overconfidence Bias

| S/N | | SD (%) | D(%) | UN(%) | A(%) | SA(%) |
|---|---|---|---|---|---|---|
| 1 | I feel that I possess the requisite skills to predict the return on investment generating out of an investment plan. | 4 (4%) | 6 (6%) | 36 (36%) | 46 (46%) | 8 (8%) |
| 2 | My wits and knowledge about the investments bring the expected returns. | 2 (2%) | 10 (10%) | 38 (38%) | 46 (46%) | 6 (6%) |
| 3 | My forecasts about good or bad investments are true to the best of my knowledge. | 4 (4%) | 8 (8%) | 38 (38%) | 38 (38%) | 12 (12%) |
| 4 | I always take the correct investment decisions even if the investors find it difficult to predict the market. | 4 (4%) | 30 (30%) | 34 (34%) | 26 (26%) | 6 (6%) |
| 5 | I am always able to forecast a loss in any of the investments I make and devise ways to minimize the risk associated. | 4 (4%) | 36 (36%) | 36 (36%) | 20 (20%) | 4 (4%) |

Results based on Overconfidence Bias

Table 6 represents results of overconfidence bias. It can be seen from the table that there is a mixed kind of a response given by the respondents with neutral, disagree and agree responses. Further the results of demographic characteristics too did not reveal anything significant as the respondents seem to be equally biased in taking decisions on the basis of their own confidence towards the outcome.

Table 7: Gambler's Fallacy Bias

| S/N | | SD (%) | D(%) | UN(%) | A(%) | SA(%) |
|---|---|---|---|---|---|---|
| 1 | If there is a continuous low return from any of my investment plans, I carry a belief that it will definitely rise in the near future. | 6 (6%) | 16 (16%) | 30 (30%) | 44 (44%) | 4 (4%) |
| 2 | I do not get influenced by the current returns of an investment plan. | 2 (2%) | 40 (40%) | 34 (34%) | 20 (20%) | 4 (4%) |
| 3 | I follow a reverse belief to the current information available in the market with regard to an investment plan. | 6 (6%) | 22 (22%) | 28 (28%) | 44 (44%) | 0 (0%) |

| | | | | | | |
|---|---|---|---|---|---|---|
| 4 | I consider the past performance of a company before investing in either a stock or any other investment of that company. | 2 (2%) | 2 (2%) | 22 (22%) | 62 (62%) | 12 (12%) |
| 5 | The current status of a stock is of a great help in arriving at a decision to invest. | 2 (2%) | 6 (6%) | 18 (18%) | 56 (56%) | 18 (18%) |

Results based on Gambler's Fallacy Bias

Table 7 represents results of gambler's fallacy bias. It can be seen from the table that just like in case of overconfidence bias, there is a mixed kind of a response given by the respondents with neutral, disagree and agree responses. A collective total of 52% and 76% in "Strongly Disagree", "Disagree" and "Neutral" responses in the first and second question of this set respectively, reveals a startling fact that the respondents lack belief in investments plans that give continuous low returns and their decisions are directly linked with the current trend or return. This fact remains constant over the different demographic characteristics as none could show any significant impact conveying the fact that the respondents being teachers do not tend to gamble around with their investment decisions and showed conservative approach.

Table 8: Hindsight Bias

| S/N | | SD (%) | D(%) | UN(%) | A(%) | SA(%) |
|---|---|---|---|---|---|---|
| 1 | I know about the profits and losses that may happen in future to me. | 6 (6%) | 18 (18%) | 26 (26%) | 42 (42%) | 8 (8%) |
| 2 | The market up and down trends seem obvious to me. | 6 (6%) | 16 (16%) | 36 (36%) | 34 (34%) | 8 (8%) |
| 3 | I possess a special skill or talent to foresee the investment outcomes. | 2 (2%) | 16 (16%) | 46 (46%) | 30 (30%) | 6 (6%) |
| 4 | My investment decisions turn out to be good due to correct foresightedness of the market movements. | 4 (4%) | 6 (6%) | 52 (52%) | 34 (34%) | 4 (4%) |
| 5 | I hardly face any issues in making investments even if the market is unfavorable. | 8 (8%) | 38 (38%) | 18 (18%) | 30 (30%) | 6 (6%) |

Results based on Hindsight Bias

Table 8 represents results of hindsight bias. It can be seen from the table that majority of the respondents have disagreed, neutral and agreed responses towards the statements. However a deeper look into the statistics can give a few revelations. The result of this particular bias was different from the others in the sense that it was the only set of questions wherein the "Neutral" responses outnumbered the "Agreed" or "Disagreed" responses in general. This in itself shows how behavior plays a role in decision making. The respondents were not confident to either agree or disagree to the questions that focused on their skills and foresightedness which can be an

indicator of the fact that the profit/loss and the market trends seem to occupy more space in the minds of the respondents in general rather than their own skill to foresee the outcomes. Yet again the demographic characteristics failed to impact the outcome in a significant way.

Table 9: Confirmation Bias

| S/N | | SD (%) | D(%) | UN(%) | A(%) | SA(%) |
|---|---|---|---|---|---|---|
| 1 | My beliefs and expectations about the market movements are true. | 2 (2%) | 12 (12%) | 48 (48%) | 34 (34%) | 4 (4%) |
| 2 | A recent news or publication in the market prompts me to make the investment decisions accordingly. | 2 (2%) | 4 (4%) | 30 (30%) | 50 (50%) | 14 (14%) |
| 3 | I believe that only a novel information about a company acts a strong base for making investment decisions. | 2 (2%) | 14 (14%) | 38 (38%) | 40 (40%) | 6 (6%) |
| 4 | I ensure that I gather all the current information relating to an investment before making up my mind for any investment. | 6 (6%) | 10 (10%) | 20 (20%) | 52 (52%) | 12 (12%) |
| 5 | Past information of a company is necessarily not a contributing factor for investment decisions. | 12 (12%) | 32 (32%) | 18 (18%) | 32 (32%) | 6 (6%) |

Results based on Confirmation Bias

Table 9 represents results of confirmation bias. It can be seen from the table that majority of the respondents have disagreed, neutral and agreed responses towards the statements. A higher percentage of neutral responses in these questions somehow showcase the volatile nature of the Stock Market due to which the respondents lack affirmation in their beliefs and expectations. This bias too seems to be equally present in the respondents irrespective of their age, gender, designation or years of experience as none could show a significant impact.The above results represent the presence of behavioral biases amongst the respondents which influence their investment decision making process. Subsequently, Test of ANOVA was applied to find out if the demographic characteristics of the respondents have a significant impact on these behavioural biases.The results of ANOVA revealed that age has no significant influence on herding bias, home bias, representative bias, overconfidence bias, hindsight bias, gambler's fallacy and confirmation bias. It means that irrespective of the age of an individual investor, these biases may be present in all the investors while making investment decisions. However, the study revealed that age has a significant influence on anchoring bias. Post Hoc analysis revealed that respondents with more than 40 years of age showed more signs of anchoring bias in their investment decision making process. Gender seems to have no significant influence in any of the independent variables of the study. It can be concluded that gender as a factor does not influence the behavioural biases present in both men and women while making investment decisions. Similarly the designation of the respondents had no significant influence on any of the independent variables of the present study.

However, the study of the experience of the respondents implies that respondents with more than 10 years of experience had a significant influence on the representative bias and therefore such respondents did not consider the past performance of a company before investing in a company.This implies that out of the four dependent variables, age and experience of the respondents influence anchoring and representative bias respectively. The results of Post Hoc Analysis for representative and anchoring bias have been shown in Table 10 and 11 respectively.Table 10 shows that for respondents with experience of 10-15 years shows significant impact on representative bias of the respondents. Further, dwelling into the post hoc analysis, It can therefore be concluded that they rely on the present trend of the company before making any investment in it and therefore the past performance of the company does not affect their decision making process.Table 11 shows the significance value of 0.042 showing that the respondents with age of 41-50 and more than 50 years treat the current price of a share as an anchor for predicting the Return on investment for upcoming period.

**Multiple Comparisons**

Bonferroni

| Dependent Variable | (I) Years of experience | (J) Years of experience | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|---|---|---|---|---|---|---|---|
| | | | | | | Lower Bound | Upper Bound |
| 16. I take a successful investment plan with a belief that it will continue to rise in future as well | Less than 1 Year | 1-5 Years | -.326 | .376 | 1.000 | -1.41 | .75 |
| | | 5-10 Years | -.200 | .447 | 1.000 | -1.49 | 1.09 |
| | | 10-15 Years | -.875 | .415 | .375 | -2.07 | .32 |
| | | More than 15 Years | .227 | .399 | 1.000 | -.92 | 1.37 |
| | 1-5 Years | Less than 1 Year | .326 | .376 | 1.000 | -.75 | 1.41 |
| | | 5-10 Years | .126 | .302 | 1.000 | -.74 | .99 |
| | | 10-15 Years | -.549 | .251 | .315 | -1.27 | .17 |
| | | More than 15 Years | .553 | .225 | .155 | -.09 | 1.20 |
| | 5-10 Years | Less than 1 Year | .200 | .447 | 1.000 | -1.09 | 1.49 |
| | | 1-5 Years | -.126 | .302 | 1.000 | -.99 | .74 |
| | | 10-15 Years | -.675 | .349 | .563 | -1.68 | .33 |
| | | More than 15 Years | .427 | .330 | 1.000 | -.52 | 1.38 |
| | 10-15 Years | Less than 1 Year | .875 | .415 | .375 | -.32 | 2.07 |
| | | 1-5 Years | .549 | .251 | .315 | -.17 | 1.27 |
| | | 5-10 Years | .675 | .349 | .563 | -.33 | 1.68 |
| | | More than 15 Years | 1.102* | .285 | .002 | .28 | 1.92 |
| | More than 15 Years | Less than 1 Year | -.227 | .399 | 1.000 | -1.37 | .92 |
| | | 1-5 Years | -.553 | .225 | .155 | -1.20 | .09 |
| | | 5-10 Years | -.427 | .330 | 1.000 | -1.38 | .52 |
| | | 10-15 Years | -1.102* | .285 | .002 | -1.92 | -.28 |
| 17. A current low return worries me and keeps me away from the prospects of high return from such an investment | Less than 1 Year | 1-5 Years | .174 | .408 | 1.000 | -1.00 | 1.35 |
| | | 5-10 Years | .700 | .485 | 1.000 | -.69 | 2.09 |
| | | 10-15 Years | -.188 | .450 | 1.000 | -1.48 | 1.11 |
| | | More than 15 Years | .318 | .433 | 1.000 | -.93 | 1.56 |
| | 1-5 Years | Less than 1 Year | -.174 | .408 | 1.000 | -1.35 | 1.00 |
| | | 5-10 Years | .526 | .328 | 1.000 | -.42 | 1.47 |
| | | 10-15 Years | -.361 | .273 | 1.000 | -1.15 | .42 |
| | | More than 15 Years | .144 | .244 | 1.000 | -.56 | .84 |
| | 5-10 Years | Less than 1 Year | -.700 | .485 | 1.000 | -2.09 | .69 |
| | | 1-5 Years | -.526 | .328 | 1.000 | -1.47 | .42 |
| | | 10-15 Years | -.888 | .379 | .212 | -1.98 | .20 |
| | | More than 15 Years | -.382 | .358 | 1.000 | -1.41 | .65 |
| | 10-15 Years | Less than 1 Year | .188 | .450 | 1.000 | -1.11 | 1.48 |
| | | 1-5 Years | .361 | .273 | 1.000 | -.42 | 1.15 |
| | | 5-10 Years | .888 | .379 | .212 | -.20 | 1.98 |
| | | More than 15 Years | .506 | .309 | 1.000 | -.38 | 1.39 |
| | More than 15 Years | Less than 1 Year | -.318 | .433 | 1.000 | -1.56 | .93 |
| | | 1-5 Years | -.144 | .244 | 1.000 | -.84 | .56 |
| | | 5-10 Years | .382 | .358 | 1.000 | -.65 | 1.41 |
| | | 10-15 Years | -.506 | .309 | 1.000 | -1.39 | .38 |
| 18. Recent trend of the market is the only factor which influences my investment decision | Less than 1 Year | 1-5 Years | .304 | .455 | 1.000 | -1.00 | 1.61 |
| | | 5-10 Years | .600 | .541 | 1.000 | -.95 | 2.15 |
| | | 10-15 Years | -.125 | .501 | 1.000 | -1.57 | 1.32 |
| | | More than 15 Years | .818 | .482 | .931 | -.57 | 2.20 |
| | 1-5 Years | Less than 1 Year | -.304 | .455 | 1.000 | -1.61 | 1.00 |
| | | 5-10 Years | .296 | .365 | 1.000 | -.75 | 1.35 |
| | | 10-15 Years | -.429 | .304 | 1.000 | -1.30 | .44 |
| | | More than 15 Years | .514 | .271 | .614 | -.27 | 1.29 |
| | 5-10 Years | Less than 1 Year | -.600 | .541 | 1.000 | -2.15 | .95 |
| | | 1-5 Years | -.296 | .365 | 1.000 | -1.35 | .75 |
| | | 10-15 Years | -.725 | .422 | .891 | -1.94 | .49 |
| | | More than 15 Years | .218 | .399 | 1.000 | -.93 | 1.37 |
| | 10-15 Years | Less than 1 Year | .125 | .501 | 1.000 | -1.32 | 1.57 |
| | | 1-5 Years | .429 | .304 | 1.000 | -.44 | 1.30 |
| | | 5-10 Years | .725 | .422 | .891 | -.49 | 1.94 |
| | | More than 15 Years | .943 | .344 | .073 | -.05 | 1.93 |
| | More than 15 Years | Less than 1 Year | -.818 | .482 | .931 | -2.20 | .57 |
| | | 1-5 Years | -.514 | .271 | .614 | -1.29 | .27 |
| | | 5-10 Years | -.218 | .399 | 1.000 | -1.37 | .93 |
| | | 10-15 Years | -.943 | .344 | .073 | -1.93 | .05 |
| 19. I do not consider the past performance of a company before investing in a company | Less than 1 Year | 1-5 Years | -.072 | .417 | 1.000 | -1.27 | 1.13 |
| | | 5-10 Years | .067 | .496 | 1.000 | -1.36 | 1.49 |
| | | 10-15 Years | -.708 | .460 | 1.000 | -2.03 | .61 |
| | | More than 15 Years | .258 | .442 | 1.000 | -1.01 | 1.53 |
| | 1-5 Years | Less than 1 Year | .072 | .417 | 1.000 | -1.13 | 1.27 |
| | | 5-10 Years | .139 | .335 | 1.000 | -.82 | 1.10 |
| | | 10-15 Years | -.636 | .279 | .248 | -1.44 | .17 |
| | | More than 15 Years | .330 | .249 | 1.000 | -.39 | 1.05 |
| | 5-10 Years | Less than 1 Year | -.067 | .496 | 1.000 | -1.49 | 1.36 |
| | | 1-5 Years | -.139 | .335 | 1.000 | -1.10 | .82 |
| | | 10-15 Years | -.775 | .387 | .482 | -1.89 | .34 |
| | | More than 15 Years | .191 | .366 | 1.000 | -.86 | 1.24 |
| | 10-15 Years | Less than 1 Year | .708 | .460 | 1.000 | -.61 | 2.03 |
| | | 1-5 Years | .636 | .279 | .248 | -.17 | 1.44 |
| | | 5-10 Years | .775 | .387 | .482 | -.34 | 1.89 |
| | | More than 15 Years | .966* | .316 | .029 | .06 | 1.87 |
| | More than 15 Years | Less than 1 Year | -.258 | .442 | 1.000 | -1.53 | 1.01 |
| | | 1-5 Years | -.330 | .249 | 1.000 | -1.05 | .39 |
| | | 5-10 Years | -.191 | .366 | 1.000 | -1.24 | .86 |
| | | 10-15 Years | -.966* | .316 | .029 | -1.87 | -.06 |
| 20. The current returns available in an investment plan help me in evaluating the investment proposal and then arriving at a decision to invest in | Less than 1 Year | 1-5 Years | .630 | .393 | 1.000 | -.50 | 1.76 |
| | | 5-10 Years | .400 | .467 | 1.000 | -.94 | 1.74 |
| | | 10-15 Years | .375 | .433 | 1.000 | -.87 | 1.62 |
| | | More than 15 Years | .227 | .417 | 1.000 | -.97 | 1.42 |
| | 1-5 Years | Less than 1 Year | -.630 | .393 | 1.000 | -1.76 | .50 |
| | | 5-10 Years | -.230 | .316 | 1.000 | -1.14 | .68 |
| | | 10-15 Years | -.255 | .263 | 1.000 | -1.01 | .50 |
| | | More than 15 Years | -.403 | .234 | .888 | -1.08 | .27 |
| | 5-10 Years | Less than 1 Year | -.400 | .467 | 1.000 | -1.74 | .94 |
| | | 1-5 Years | .230 | .316 | 1.000 | -.68 | 1.14 |
| | | 10-15 Years | -.025 | .365 | 1.000 | -1.07 | 1.02 |
| | | More than 15 Years | -.173 | .345 | 1.000 | -1.16 | .82 |
| | 10-15 Years | Less than 1 Year | -.375 | .433 | 1.000 | -1.62 | .87 |
| | | 1-5 Years | .255 | .263 | 1.000 | -.50 | 1.01 |
| | | 5-10 Years | .025 | .365 | 1.000 | -1.02 | 1.07 |
| | | More than 15 Years | -.148 | .297 | 1.000 | -1.00 | .71 |
| | More than 15 Years | Less than 1 Year | -.227 | .417 | 1.000 | -1.42 | .97 |
| | | 1-5 Years | .403 | .234 | .888 | -.27 | 1.08 |
| | | 5-10 Years | .173 | .345 | 1.000 | -.82 | 1.16 |
| | | 10-15 Years | .148 | .297 | 1.000 | -.71 | 1.00 |

*. The mean difference is significant at the 0.05 level.

**Multiple Comparisons**

Bonferroni

| Dependent Variable | (I) Age | (J) Age | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|---|---|---|---|---|---|---|---|
| | | | | | | Lower Bound | Upper Bound |
| 11. I wait for the investments to reach at least the purchase price or the initial investment cost if the investment made is in a declining trend | Less than 30 Years | 31-40 Years | -.039 | .238 | 1.000 | -.68 | .60 |
| | | 41-50 Years | -.254 | .334 | 1.000 | -1.15 | .65 |
| | | More than 50 Years | -.575 | .564 | 1.000 | -2.09 | .94 |
| | 31-40 Years | Less than 30 Years | .039 | .238 | 1.000 | -.60 | .68 |
| | | 41-50 Years | -.214 | .332 | 1.000 | -1.11 | .68 |
| | | More than 50 Years | -.536 | .563 | 1.000 | -2.05 | .98 |
| | 41-50 Years | Less than 30 Years | .254 | .334 | 1.000 | -.65 | 1.15 |
| | | 31-40 Years | .214 | .332 | 1.000 | -.68 | 1.11 |
| | | More than 50 Years | -.321 | .610 | 1.000 | -1.96 | 1.32 |
| | More than 50 Years | Less than 30 Years | .575 | .564 | 1.000 | -.94 | 2.09 |
| | | 31-40 Years | .536 | .563 | 1.000 | -.98 | 2.05 |
| | | 41-50 Years | .321 | .610 | 1.000 | -1.32 | 1.96 |
| 12. The previous price becomes the referral point for me to purchase any share or to make an investment in any other sector | Less than 30 Years | 31-40 Years | .021 | .184 | 1.000 | -.48 | .52 |
| | | 41-50 Years | -.479 | .259 | .407 | -1.18 | .22 |
| | | More than 50 Years | -.300 | .438 | 1.000 | -1.48 | .88 |
| | 31-40 Years | Less than 30 Years | -.021 | .184 | 1.000 | -.52 | .48 |
| | | 41-50 Years | -.500 | .258 | .331 | -1.19 | .19 |
| | | More than 50 Years | -.321 | .437 | 1.000 | -1.50 | .86 |
| | 41-50 Years | Less than 30 Years | .479 | .259 | .407 | -.22 | 1.18 |
| | | 31-40 Years | .500 | .258 | .331 | -.19 | 1.19 |
| | | More than 50 Years | .179 | .473 | 1.000 | -1.10 | 1.45 |
| | More than 50 Years | Less than 30 Years | .300 | .438 | 1.000 | -.88 | 1.48 |
| | | 31-40 Years | .321 | .437 | 1.000 | -.86 | 1.50 |
| | | 41-50 Years | -.179 | .473 | 1.000 | -1.45 | 1.10 |
| 13. I predict the return on investment for the upcoming periods on the basis of the current price of a company's share | Less than 30 Years | 31-40 Years | -.073 | .238 | 1.000 | -.71 | .57 |
| | | 41-50 Years | .404 | .334 | 1.000 | -.50 | 1.30 |
| | | More than 50 Years | -1.275 | .564 | .156 | -2.79 | .24 |
| | 31-40 Years | Less than 30 Years | .073 | .238 | 1.000 | -.57 | .71 |
| | | 41-50 Years | .476 | .332 | .928 | -.42 | 1.37 |
| | | More than 50 Years | -1.202 | .563 | .211 | -2.72 | .31 |
| | 41-50 Years | Less than 30 Years | -.404 | .334 | 1.000 | -1.30 | .50 |
| | | 31-40 Years | -.476 | .332 | .928 | -1.37 | .42 |
| | | More than 50 Years | -1.679* | .610 | .042 | -3.32 | -.04 |
| | More than 50 Years | Less than 30 Years | 1.275 | .564 | .156 | -.24 | 2.79 |
| | | 31-40 Years | 1.202 | .563 | .211 | -.31 | 2.72 |
| | | 41-50 Years | 1.679* | .610 | .042 | .04 | 3.32 |
| 14. I consider the initial investment cost or purchase price of a share as a measure for the success or failure of an investment | Less than 30 Years | 31-40 Years | -.176 | .219 | 1.000 | -.77 | .41 |
| | | 41-50 Years | -.771 | .308 | .084 | -1.60 | .06 |
| | | More than 50 Years | .550 | .520 | 1.000 | -.85 | 1.95 |
| | 31-40 Years | Less than 30 Years | .176 | .219 | 1.000 | -.41 | .77 |
| | | 41-50 Years | -.595 | .306 | .329 | -1.42 | .23 |
| | | More than 50 Years | .726 | .519 | .991 | -.67 | 2.13 |
| | 41-50 Years | Less than 30 Years | .771 | .308 | .084 | -.06 | 1.60 |
| | | 31-40 Years | .595 | .306 | .329 | -.23 | 1.42 |
| | | More than 50 Years | 1.321 | .563 | .125 | -.19 | 2.84 |
| | More than 50 Years | Less than 30 Years | -.550 | .520 | 1.000 | -1.95 | .85 |
| | | 31-40 Years | -.726 | .519 | .991 | -2.13 | .67 |
| | | 41-50 Years | -1.321 | .563 | .125 | -2.84 | .19 |
| 15. The previous information relating to a company determines whether to withdraw (sell off) or hold the investment for quite some time | Less than 30 Years | 31-40 Years | -.611 | .247 | .090 | -1.28 | .05 |
| | | 41-50 Years | -.825 | .347 | .116 | -1.76 | .11 |
| | | More than 50 Years | -1.575 | .585 | .050 | -3.15 | .00 |
| | 31-40 Years | Less than 30 Years | .611 | .247 | .090 | -.05 | 1.28 |
| | | 41-50 Years | -.214 | .344 | 1.000 | -1.14 | .71 |
| | | More than 50 Years | -.964 | .584 | .612 | -2.54 | .61 |
| | 41-50 Years | Less than 30 Years | .825 | .347 | .116 | -.11 | 1.76 |
| | | 31-40 Years | .214 | .344 | 1.000 | -.71 | 1.14 |
| | | More than 50 Years | -.750 | .633 | 1.000 | -2.45 | .95 |
| | More than 50 Years | Less than 30 Years | 1.575 | .585 | .050 | .00 | 3.15 |
| | | 31-40 Years | .964 | .584 | .612 | -.61 | 2.54 |
| | | 41-50 Years | .750 | .633 | 1.000 | -.95 | 2.45 |

*. The mean difference is significant at the 0.05 level.

Limitations of the research

The present study was undertaken in some specific regions of Punjab. As the study is purely primary in nature, therefore there is a possibility of respondents being biased and not disclosing their true behavioural patterns while making investment decisions.

Conclusion

The study of 100 college and university teachers on the influence of four demographic characteristics on investment decisions by impacting the behavioral biases revealed that Age and Years of Experience showed significant influence on anchoring and representative bias respectively. Other biases remained out of any significant influence from any of the four demographic characteristics. The observations have been backed by relevant data and tests performed which includes descriptive statistics, frequency distribution, ANOVA and Post-Hoc Analysis (using Bonferroni), the results of which have been shown in the tables number 2 to 11.

**References:**


1. Chitra K. &Jayashree T. (2014). Does Demographic Profile Create a Difference in the Investor Behavior? The International Journal of Business & Management, Vol 2 (7).
2. GregFibeck et al. (2017). Behavioral finance: A panel discussion. Journal of behavioral and experimental finance vol.15, pageno. 52-58.
3. Kabra, G., Mishra, Prashant K. & Dash, Manoj K. (2010). Factors Influencing Investment Decision of Generation in India: an Econometric Study. Asian Journal of Management Research, vol. 1(1), pp. 308-328.
4. Kahneman, Daniel and Tversky, Amos. (1979). Prospect Theory: An Analysis of Decision under Risk. Econometric, vol 47(2), pp. 263 – 291.
5. Ahmad, Durri K. (2015). Comprehensive Review of Literature on Behavioural Finance. Indian Journal of Commerce &Management Studies. www.scholarshub.net.Volume VI (2).
6. Barber Brad M., and Odean, Terrance. (1999). The Courage of Misguided Convictions. Financial Analysts Journal, vol.55(6).
7. Ramadorai, T. (2013), "India is world no 1 in individuals directly owning stocks", available at: http://archive.financialexpress.com/news/india-is-world-no-1-in-individuals-directly-owning-stocks-oxfords-ramadorai/1209136
8. Shiller, R.J. (2003), "From efficient markets theory to behavioral finance", Journal of EconomicPerspectives, Vol. 17 No. 1, pp. 83-104.
9. Lal, J. (1992). Understanding Indian Investor. Global Business Press, New Delhi.
10. Tversky, A. and Kahneman, D. (1974), "Judgment under uncertainty: heuristics and biases", Science,Vol. 185 No. 4, pp. 1124-1131.
11. Barberis,N.,&Thaler,R.(2003).HandbookoftheeconomicsoffinanceRetrieved fromhttp://faculty.som.yale.edu/nicholasbarberis/ch18_6.pdf
12. Bashir,T.&Bashir,T.(2013).ImpactofBehavioralBiasesonInvestorsDecisionMaking:MaleVsFemale.IOSRJournal ofBusiness and Management, 10, 60–68.