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EXECUTIVE SUMMARY

In this context, the current research study, known as “The Impact of Demographic Factors on Behavioral Biases Among Investors,” has been conducted in order to determine the influence of demographics on the behavioral biases of investors. In this context, there are four types of behavioral biases, which include Confirmation Bias, Loss Aversion Bias, Herding Bias, & Anchoring Bias, & which would be analyzed using the demographic factors, such as Gender, Age, Education, & Experience of Investing.

Behavioral finance is one of the emerging branches of finance nowadays as the conventional financial theories consider investors to be rational in nature. Nevertheless, the behavioral aspects like heuristics, emotions, & psychology of the investor come into play when the investor makes any decision pertaining to the financial arena. Such behavioral biases have implications in the performance & risk management practices of the investors' portfolio.

This research is descriptive, analytical, & quantitative in its approach. Primary data were obtained from 200 respondents through the use of structured questionnaires that were sent through Google Forms. The respondents who participated in the study had previous experience in making investments in financial tools including stocks, mutual funds, SIPs, ETFs, & others.

The questionnaire was made up of two parts. The first part of the survey asked questions pertaining to demographics of the respondents such as “gender, age, education, & previous experience” in making investments. The second part comprised questions that pertained to the four behavioral biases being considered in the research. For gathering behavioral responses, the researcher employed the 5-point Likert Scale.

Purposive Sampling technique was employed for this study since it focused on participants who had some form of prior investment knowledge. The data collected was analyzed through statistical means including:

- Descriptive Statistics
- Cronbachs Alpha
- Chi Square Test
- Spearmans Rank Correlation
- M. L. Regression Analysis

Descriptive Statistics was applied to obtain information related to demographics of participants. It was found from the analysis that most of the respondents were b/w 21-25 years old & had completed either

their under-graduation or post-graduation. Moreover, most respondents had investment experience below three years.

11

Cronbachs Alpha was used to measure reliability of the questionnaire. It is important to note that reliability scores received for all behavioural biases were above the threshold score, which suggests that the research tool had high reliability.

To investigate associations b/w behavioral biases & demographic variables, chi square test was performed. As per the results, there was a significant association b/w:

- Age & Confirmation Bias
- Educational Qualification & Loss Aversion Bias
- Age, Educational Qualification, & Investment Experience with Herding Bias
- Gender & Anchoring Bias

Spearman's Rank Correlation analysis was used to find strength & direction of associations b/w "demographic factors" & "biases". It was found that Educational Qualification had a significant negative correlation with Confirmation Bias, which means that educated people were less prone to exhibit confirmation bias.

Similarly, Loss Aversion Bias had significant negative correlations with "Age, Educational Qualification, & Investment Experience". It means that educated, older, & experienced individuals had lesser tendency to behave in a loss averse manner.

Herding Bias was found to have significant negative correlations with "Age & Educational Qualification", which means that older & educated investors had lower herding tendencies.

Anchoring Bias did not display significant correlations with other variables in the correlation test.

21

M L R analysis was performed to find the overall impact of demographic factors on behavioral biases. As per the regression findings, demographic factors accounted for a moderate amount of variation for Loss Aversion Bias & Herding Bias. One of the main demographic factors influencing investor behavior was found to be Educational Qualification.

The conclusions drawn from the research findings state that investor's behavior isn't fully rational & is largely impacted by psychological & demographic factors. Behavioral biases are likely to affect investor decisions & may have implications for the financial welfare of the investors. Hence, the emphasis must be placed on enhancing financial literacy & investment knowledge among the investor.

This research adds knowledge on Behavioral Finance through its insights on how demographic factors impact the investor behavior in India. The research findings can prove beneficial for investors, financial advisors, educational institutions, policy makers & financial regulatory authorities in devising methods to increase investor awareness.

CHAPTER 1

INTRODUCTION

1.1 Background

There is an enormous amount of growth in various areas of businesses globally at present. It has led to ample investment opportunities for individuals in the financial market. These opportunities give rise to a large number of sources of incomes globally. The investors have now got the freedom to choose from a variety of financial tools to invest in equity markets like spot, Futures & Options, SIP, ETFs, Mutual Funds & other options. But it has also become complicated for the investors owing to the vast array of options. The Indian stock market has undergone remarkable changes during the last decade. According to figures provided by SEBI, there was a tremendous increase in the number of demat accounts that went up to 14 crore by 2024 from about 4 crore in 2020, thanks to the availability of many mobile-based platforms like Zerodha, Groww, & Upstox. There were millions of first-generation & inexperienced investors who entered the market without any knowledge of finance & investing. They were prone to behavioural biases, making the study important in the present context. Investment is a purposeful activity, which involves making sure one is prepared for any future events with the help of available resources. An investor is usually trying to earn profits from the investments undertaken or obtain capital gains at the same time considering the possible risks & expected rate of returns. Behavioral finance plays a vital role in investing as it is the phenomenon when individuals show irrational behavior as a result of psychological issues. The problem here is that many investors tend to ignore facts. People invest in stocks according to rumors & divest them because “people say” the shares are no good. While the advice received from stock market forums & analysis is not necessarily right, it could mislead the investor to buy those shares & raise their price, so that people recommending divestment get their profit.

1.2 Problem Statement

Traditional economic theories such as EMH & Expected Utility Theory presuppose that investors operate in a rational manner in order to maximise their wealth. The assumption further holds that they utilise all the available data objectively. However, over several decades now, numerous studies conducted under the purview of behavioural finance have proved investor don't operate rationally. This deviation is neither random nor arbitrary but has certain regularities owing to psychological limitations of investors.

Although many international studies have been undertaken on the issue of behavioural biases among investors & its implications, there still exists an evident gap in research on the influence of multiple demographic factors in relation to multiple types of investor biases in India. In general, most of the international studies consider one behavioural bias at a time or study the impact of one demographic variable independently. In addition to this, the recent surge in the number of retail investors in India, especially those who use applications & have a relatively poor understanding of finances, calls for immediate attention on studying the unique behavioural problems that this group faces. Financially harmful decisions arising out of these behavioural issues can lead to heavy financial losses at a personal level & even make markets more volatile at a broader level.

Hence, my study tries to explore question: What role does the demographic factor (age, gender, educational qualification, & investing experience) play in determining the presence & intensity of four major behavioural biases, such as “Confirmation Bias, Loss Aversion Bias, Herding Bias, & Anchoring Bias”, among investors from India? Finding answers to the above research question will add to our academic understanding of behavioural finance in general & help us practically too.

1.3 Objectives of the Study

The study is guided by the following specific objectives:

- To investigate the investment behavior & preferences of young investors such as their investment frequency, investment instruments used, & the percentage of their income invested.
- To determine the degree & nature of the behavioral biases in study population.
- To check relationship b/w the demographic factor of gender & the aforementioned four selected behavioral biases.
- To check the relationship b/w the demographic factor of age & the aforementioned four selected behavioral biases.
- To check the relationship b/w the demographic factor of educational qualification & the aforementioned four selected behavioral biases.
- To check the relationship b/w the demographic factor of investment experience & the aforementioned four selected behavioral biases.
- To check the relationship b/w the demographic factor of investment experience & the above mentioned four selected behavioral biases.

1.4 Scope of Study

This includes a thorough investigation into four types of behavioural biases:” Loss Aversion Bias, Herding Bias, Confirmation Bias, & Anchoring Bias”. An analysis is performed to show how these biases correlate with demographic factor. The research will be carried out among the students belonging to different fields from universities/colleges situated in Delhi. Besides, it will include working individuals with varied educational & investing backgrounds. Most participants of the survey will be aged b/w 18 to 35 years, as the trend towards younger retail investors in India seems to grow.

Some points must also be kept in mind about those things that do not come under the purview of this study. First of all, it should be noted that this study does not focus on the effect of macroeconomic environment, economic cycles, & financial instruments on behavioral biases.

1.5 Significance of the Study

The research is important on several fronts, including theoretical, practical, & policy-related.

Academic Importance: The research makes a major contr. to the imp. area of B. Fin. in emerging economies, especially in India. By considering four different biases for four demographic parameters at once, the research addresses an important research gap that exists in contemporary literature on either individual biases or individual demographics, but not both simultaneously. It provides an important analysis through the application of Spearmans Rank Correlation test on primary data.

Importance for Investors: Individual investors, especially the young or novice, will find it useful if they identify their propensity toward particular biases on the basis of their demographic characteristics. The first step toward overcoming any bias involves awareness. If investors are aware that their demographic characteristics are prone to induce particular biases, then they will make concerted efforts to avoid it.

Importance for Financial Educators/Advisors: The output can be used by financial planners & certified investment advisors (CIAs) & financial educators to develop tailored financial literacy programs. For example, if it is found through this study that investors with lesser qualifications tend to be prone to herding behaviour, then a module can be designed specifically to counter that tendency.

Importance for Policy Makers: Authorities such as SEBI & AMFI can use the results of this study to come up with investor’s education campaigns as well as their suitability criteria in a manner that takes into account demographic weaknesses.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

Behavioural Finance has become one of the most imp areas in the subject of finance due to its ability to provide an underst&ing regarding the impacts of psychological, emotional & other aspects on the decision-making process. Generally, traditional financial theories state that investors tend to be logical & they always make decisions that help them earn maximum gains. But reality shows that the actual decisions made by investors deviate from this assumption since they are driven by emotions, personal opinions, sentiments of the market & demographic attributes which results in irrational decisions & biases. The current research is aimed at identifying the impacts of factors Biasess. Various scholarly articles & research papers reveal that investor behaviour is not always logical & there is a considerable impact of demographic variables on their decisions.

This chapter highlights some key theoretical & empirical studies on Behavioural Finance, demographic variables influencing investors' decisions & the four biases in question.

2.2 Theoretical Foundations of Behavioural Finance

However, various studies have been conducted empirically that contradicted these classical financial concepts, including the efficient market hypothesis (Fama, 1970) & the expected utility theory by Von Neumann & Morgenstern.

For example, Shiller (1981) stated that there is too much volatility in stock markets in comparison to the changes in fundamentals, casting doubts on the efficient market theory. Likewise, De Bondt & Thaler (1985) found that the worst-performing stocks in the previous period tend to perform better than other stocks during the future periods, implying investor overreaction & irrationality. Therefore, the groundwork for behavioral finance had been set.

Prospect theory formulated by Kahneman & Tversky (1979) is considered the most influential theory regarding behavioral finance. First of all, this theory revealed that people perceive profitss & losses based on some reference level rather than their wealth positions. In addition, Kahneman & Tversky (1979) introduced the concept of loss aversion, meaning that individuals experience losses much harder than any gain.

Further, Tversky & Kahneman (1974) brought forward the idea of heuristics & cognitive biases like representativeness, availability, & anchoring. Even though heuristics help in simplifying the decision-making process, they result in cognitive errors.

The idea of mental accounting came from Thaler (1985), stating that investors categorize money in their minds & make irrational choices according to each category. The idea of bounded rationality of Herbert Simon also helped in developing behavioral finance because it states that investors have finite cognitive capabilities. As a result, investors make decisions through simplified procedures rather than rational procedures.

2.3 Demographic Factors & Investment Behaviour

2.3.1 Gender & Behavioural Biases

Gender has been extensively researched in behavioural finance. In their research paper "Boys Will Be Boys," Barber & Odean (2001) analyze over 35k brokerage accounts & discovered men were much more active traders than women owing to overconfidence, resulting in lower returns from investments due to high transaction fees.

According to Baker, Kumar, Goyal, & Gaur (2019), men exhibited overconfidence & high-risk taking in their investments, whereas women were found to be risk averse while investing. However, women were found to herd more than men in investments because women like to rely on group decisions while investing.

Prosad et al. (2015) & Lin (2011) also established that women were herders in their investments, whereas men were found to be confident & independent investors. Feingold (1994) found that men exhibited greater assertiveness & were less dependent on group behavior.

Further studies by Bh&ari & Deaves (2006) & Kumar & Goyal (2015) demonstrated how gender plays a crucial role in shaping investor psychology, especially regarding overconfidence, risk aversion, & trading activities.

In their study on Indian working women investors, Srivastava, Moid, & Rushdi (2024) discovered that those women having less experience in investing were more inclined towards being loss averse. All these studies thus prove that gender is a primary determinant of behavioural biases exhibited by investors.

2.3.2 Age & Behavioural Biases

The age plays imp role in shaping the investing behavior, since the investors in diff. phases of life have different experiences, financial responsibilities & risk preferences.

As Prosad et al. (2015) found, older investors, particularly those of ages 51-60 years, had higher levels of confidence owing to greater market experiences. In most cases, confidence led to the overconfidence

bias. Meanwhile, younger investors exhibited greater susceptibility to herding & anchoring biases because of insufficient experience in investing & reliance on the peer opinion & information.

According to Arora & Kumari (2015), age is an influencing factor regarding risk aversion; specifically, older investors show higher degrees of loss aversion since they care about the safety of wealth before retirement. On the contrary, younger investors tend to be more risky.

Gervais & Odean (2001) argued that overconfidence of investors was time-sensitive. Their research revealed that the investors first gained overconfidence due to their successes & subsequently calibrated themselves through feedback from the market environment.

Akhtar & Das (2019) observed that young investors are likely to be more susceptible to confirmation bias & herding behavior, while older investors tend to show greater anchoring & loss aversion tendencies. Similarly, Chira et al. (2008) observed that young investors depended on crowd behavior more when markets were uncertain. From this evidence, it is clear that apart from risk-taking abilities, age also influences vulnerability towards certain kinds of behavioral biases.

2.3.3 Educational Qualification & Behavioural Biases

Education & qualifications have an inconsistent effect on behavioral biases. Education increases knowledge about finance & improves decision-making skills, although it does not entirely stop people from being irrational.

According to Baker et al. (2019), financially literate investors had a lower tendency to be affected by herding & anchoring biases since they can analyze financial information independently. Those investors with financial background education tended to make rational decisions.

According to Ritter (2003), education decreases certain biases but may also cause overconfidence in individuals having higher levels of education as they tend to think that they know much more than others. Mahmood et al. (2024) note that financial literacy decreases the tendency to be affected by anchoring bias as educated investors are able to update their decisions.

As mentioned by Abreu & Mendes (2010), educated individuals trade less often & exhibit reduced herd behavior. However, Odean (1998) pointed out that very educated individuals can also overtrade due to overconfidence.

According to Gakhar & Prakash (2019), postgraduates in financial fields were less affected by herding & confirmation bias than those who graduated from other fields. As stated by Almansour & Arabyat (2017), education affects investment decision-making quality, especially when dealing with biases like anchoring & herding. In summary, while education helps overcome behavioral biases, it does not completely remove emotions & psychology.

2.3.4 Investment Experience & Behavioural Biases

Experience of investing is regarded as one of the most powerful moderators of behavioural biases since investors gain knowledge through previous experiences with market outcomes, & gradually become more efficient at making decisions.

Investors who have gained more experience in investing, as found by Vania et al. (2021), using Structural Equation Modelling, show less herding, overconfidence, & mental accounting tendencies. Also, according to Menkhoff et al. (2013), experienced fund managers demonstrate resistance to herding bias & the ability to spot market mispricing.

Experienced investors were found by Feng & Seasholes (2005) to be less likely to succumb to anchoring & the disposition effect, but their herding tendencies remain stable until they go through a full market cycle.

In another research, Shukla et al. (2020) studied Indian investors & concluded that investment experience had the highest negative impact on behavioural biases in comparison to any other demographic factors.

However, Gervais & Odean (2001) pointed out that, in some cases, investment experience might lead to an increase in overconfidence when investors tend to attribute their past achievements to only their abilities.

2.4 Review of Specific Behavioural Biases

2.4.1 Herding Bias

The herding effect denotes the inclination of investors to behave like others as opposed to behaving independently. Christie & Huang (1995) found that herding was evident whenever there were unusual occurrences in the stock market. Chang et al. (2000) discovered that herding behavior was prevalent in the Asian emerging markets.

Bikhchandani & Sharma (2001) highlighted two types of herding; the intentional & spurious forms, claiming that the former is caused by irrational imitation leading to market inefficiency. In India, herding was discovered to be one of the dominant biases in individual investors according to Baker et al. (2019).

Prosad et al. (2015) discovered that new investors & women exhibited greater herding behaviors. The proliferation of financial bloggers on social media sites has increased herding behaviors among Indian youths.

2.4.2 Confirmation Bias

Confirmation bias happens when investors focus on seeking information to confirm their existing opinions while ignoring evidence that might contradict these opinions. As stated by Rabin & Schrag (1999), confirmation bias results in investors having too much confidence in their beliefs & becoming unwilling to accept any correction.

Nickerson (1998) stated that confirmation bias is one of the most prevailing cognitive biases in human decision-making processes. In his study, Lord, Ross, & Lepper (1979) showed that people tend to explain evidence supporting both sides of an issue so that they can justify their existing opinion.

According to Rai (2024), confirmation bias is quite widespread among Indian investors who constantly get financial & social media information. As suggested by Pompian (2011), overconfidence goes hand-in-hand with confirmation bias in the context of interpreting market results.

2.4.3 Anchoring Bias

This is characterized by a tendency to depend on initial information in making decisions. Tversky & Kahneman (1974) carried out a study on anchoring bias using the wheel-of-fortune test.

In their subsequent study, Northcraft & Neale (1987) discovered that professional real estate experts were also affected by anchoring bias. Within the context of finance, Shefrin (2000) revealed that the investors tend to rely on purchase prices & thus cannot objectively appraise their investments.

George & Hwang (2004) discovered that investors tend to anchor to 52-week high stocks. Mahmood et al. (2024) discovered that financially literate investors are more likely to eliminate anchoring bias.

Focusing specifically on Indian retail investors, Sahi (2012) discovered that the investors tended to anchor to their purchase price & hold investments for very long periods despite incurring losses.

2.4.4 Loss Aversion Bias

It implies that people derive more disutility from loss over gains. Loss aversion was defined & made an important part of Prospect Theory by Kahneman & Tversky (1979).

The disposition effect in financial markets, where investors sell their winnings too soon but keep losing positions for too long, became the application of loss aversion in financial markets according to Shefrin & Statman (1985).

Soosunghwang & Satchell (2010) stated that people tend to secure their gains too early because of the risk of experiencing losses in the future. Mbaluka et al. (2012) showed that frame dependence increased the effect of loss aversion on investors.

Malik et al. (2017) noted that loss aversion significantly affects investment decision quality. Srivastava et al. (2024) found that female investors with little investment experience have higher levels of loss aversion. Loss aversion even applies to experienced professional traders, as shown by Haigh & List (2003).

2.5 Behavioural Finance in Country like India

India has become a leading market for growing retail investments. Based on SEBI statistics, there is a rapid increase in Demat accounts from 2020 to 2024 owing to the emergence of online investing platforms like Zerodha, Groww, & Upstox.

The quick growth has led to many first-time retail investors who are less financially educated & highly susceptible to behavioural biases. Herding, anchoring, & overconfidence biases have been found to be prevalent among retail investors in India by Baker et al. (2019).

It has been shown by Rai (2024) that behavioural biases show great differences among different demographic segments of investors in India. Inexperienced Indian investors showed greater herding & confirmation biases, according to Shukla et al. (2020). Herding behaviour has also been identified among young investors in the Delhi-NCR region by Gakhar & Prakash (2019), driven by social media & peer network influence.

Indian market can thus be seen as a great example for the study of behavioural finance due to young & inexperienced investors using digital platforms.

2.6 Research Gap

The literature review points out some significant gaps in research. Firstly, the earlier studies concentrate on a single behavioural bias or a demographic aspect at a time but do not analyze more than one variable at once.

Secondly, most research in behavioural fin. is conducted in developed nations like USA & UK, while India lacks sufficient comprehensive studies in the same.

Thirdly, studies related to behavioural finance in India have considered overconfidence & disposition effect as the primary areas of study but failed to incorporate “confirmation bias, anchoring bias, herding bias, & loss aversion” into consideration.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

5

This chapter give detail explanation of the research methodology used. It states the philosophy behind the research & the design used, explains the target population & sampling method used, highlights the data collection method & tool used, explains the classification method of data collected, discusses the hypotheses developed, & finally, talks about the analytical tools used to analyze data. This research methodology has been specifically designed in such a way as to enable achievement of the goals set out in Chapter 1.

This study examines the effect of “gender, age, educational qualifications & investment experience “on the following four behavioral biases, namely: Confirmation Bias, Loss Aversion Bias, Herding Bias, & Anchoring Bias of young investors in India.

9

3.2 Research Design

The research design is an overall framework that outlines how the researcher will collect & analyze data during the research process. It makes sure that the research process follows certain structures & is rational & consistent with the research objectives. The research design utilized for this research has been outlined on several levels below.

Dimension	Choice Made	Justification
Research Philosophy	Positivism	The research uses measurable hypotheses & numerical data along with statistical methods.
Research Approach	Deductive	Hypotheses were generated from prior theories (Prospect Theory, Heuristics & Biases Approach) & empirically tested.
Research Strategy	Survey	Structured questionnaires provide comparable data among different types of participants.
Research Type	Descriptive + Analytical	Descriptive statistics are used to characterize participants; analytical - for checking correlations b/w demographic characteristics & biases.
Data Type	Primary (Quantitative)	Primary data is obtained through questionnaires, making it relevant to research needs.
Time Horizon	Cross-sectional	Data is gathered at one-time period; enough for correlation analysis.

Table 3.1: Research Design Framework

Descriptive & analytical approaches are used for research purposes in this study. In case of the descriptive approach, demographic information on the participants & behavior of the subjects with respect to their investments will be analyzed using frequency distribution, percentages, & graphs. On the other h&, in the analytical phase of this study, the 16 developed hypotheses will be tested to find out whether there exists any imp. relationship b/w the four demographic & behavioral variables. The choice of a mixed approach in conducting the research was appropriate given the objective of study & the fact that researcher needed not only to underst& & describe the respondents but also to investigate the existing relationship in the selected vars. . As deductive approach goes, the development of testable hypotheses based on the theory proved helpful in analyzing the behavioral finance theory empirically.

3.3 Research Type

In terms of categorization, the present research falls under the following categories:

Descriptive Research – The research provides information about the demographic characteristics & investment behavioral traits of the subjects under investigation. The descriptive research technique is best applied when the researcher tries to understand what is happening. In other words, descriptive research is suitable for the profiling purposes.

Applied Research – The findings of the present research have practical application value because they may be used by various stakeholders such as investors, financial advisers, & regulators. The knowledge about which demographic subgroups are more prone to particular types of cognitive bias will be helpful in organizing financial literacy workshops & courses.

Quantitative Research – The project relies on numerical data gathering & analysis techniques. In particular, responses on the Likert scale get ordinal values while some correlational statistical tests are performed to analyze collected data. Quantitative research is the proper methodological framework when the research aims at identifying relationships & testing hypotheses.

3.4 Target Population

Research findings' validity mainly depend on the appropriate representation of the chosen sample for population. In the current research, the target population includes investors in India who have made investments in financial instruments like stocks, mutual funds, systematic investment plans (SIP), exchange traded funds (ETFs) among others.

The respondents consists of:

- Students from universities & colleges in Delhi-NCR
- Young working professionals
- Individual with varying levels of investment experience

This study concentrated on young investors as the fast growing sector of retail investors in India. The growing tendency towards using trading/investment portals has resulted in young people joining in the markets in higher numbers. Quite many investors in their youth engage themselves in investment without much market knowledge & experience, thus are prone to behavioral biases. Young investors were chosen as the target audience in this study as it would allow analyzing the interconnection b/w demographic characteristics & behavioral biases in the behavior of investors. It is important to analyze

investors of various educational backgrounds, ages, & experience to get diversified data. In total, 200 participants took part in the survey. All of them admitted investing in financial markets, hence meeting the criteria of inclusion into the research.

3.5 Sampling Technique

The current study focused on young investors who make up a rapidly expanding group of retail investors in India. As far as the increased inclination to use trading/investment portals, young people have become an active participant in financial markets. There are a great number of individuals at a young age who invest in the markets despite the lack of experience in that area. As young investors were selected as respondents for this research, it became possible to examine the relationship b/w the demographic profile of an investor & his/her behavioral bias. Thus, to conduct the study, it was essential to consider investors from diverse backgrounds in education, age, & experience.

All in all, the survey involved 200 respondents. Everyone of them stated that they invested money into financial markets, thus fulfilling the requirement for inclusion into the study:

- The selected participant should have investment experience in financial markets.
- The selected participant should fall within the appropriate demographic groups for the study
- The selected participant should be ready to fill the questionnaire in good faith.

Purposive sampling was chosen since choosing respondents from the general population in random manner may also involve people having no prior experience in investment, which will not add much to the study.

Since the topic of the research is investors & behavioral finance, it became necessary to choose those respondents having any investment experience whatsoever. Most of the respondents involved in the research were youngsters, students, & professionals having active involvement in the financial market in the form of investments made in stocks, mutual funds, SIP, ETF, & other financial tools. Data for the survey was collected online via Google forms & offline from the respondents present in Delhi-NCR region.

3.6 Sample Size

A sample is that part of the population targeted for use in a study. In study, **200 responses** were filled by participants who were eligible & met the set requirements. In terms of composition, the sample consisted of students, working professionals, & investors having some prior knowledge of investments

in financial markets. The sample size chosen for the study was appropriate for running statistical tests such as Descriptive statistics, Cronbach's Alpha, Chi Square Test, Spearmans Rank Correlation, & MLR Analysis. In relation to calculating df for the test statistic, a degree of freedom of 198 was used, which is equivalent to $n - 2$ where $n=200$ at a significance level of $\alpha = 0.05$.

3.7 Data Collection

3.7.1 Primary Data Method

This research is completely depends on collected data responden. The employment of data helped in ensuring that data collected was highly imp to the study objectives. The questionnaire was distributed using Google Forms, & answers were collected from the students, young working professionals, & investors located in the Delhi-NCR region.

3.7.2 Questionnaire Design & Structure

The survey was meticulously developed in such a way that reliable answers could be obtained in relation to the investors' behavior & behavioral biases. The survey contained not only demographic questions but also questions pertaining to the behavioral biases as well. The questions relating to behavioral biases were developed on the basis of hypothetical investment scenarios & not directly asked questions about one's self-assessment.

A 5-point Likert Scale was used for all behavioural baisquestions:

1 = Strongly Disagree

2 = Disagree

3 = Neutral

4 = Agree

5 = Strongly Agree

The Likert Scale responses helped in converting qualitative opinions into measurable numerical data suitable for statistical analysis.

The questionnaire was divided into separate sections for:

- Demographic Information
- Investment Bhevaiour
- Confirmation Bais
- Loss Aversion Bais

- Herding Bais
- Anchoring Bais

This proper classification helped in measuring each behavioural baisseparately & reduced overlap b/w variables.

The questionnaire was organized into six sections, as detailed in the table below.

Section	Content	Question Nos.	Scale Used
Section A	Demographic Information: Gender, Age, Education, Investment Experience, Frequency of Investment, Instruments Used	Q1 – Q5	Nominal / Ordinal (MCQ)

Section	Content	Question Nos.	Scale Used
Section B	Investment Behaviour: Percentage of income invested, awareness of financial instruments, primary source of investment information	Q5 – Q9	Ordinal (MCQ)
Section C	Anchoring Bias: Questions based on hypothetical investment scenarios testing reliance on initial price points & reference anchors	Q10– Q13	Likert Scale
Section D	Loss-Aversion Bias: Questions based on hypothetical gain/loss scenarios testing sensitivity to losses versus equivalent gains	Q14 – Q17	Likert Scale
Section E	Confirmation Bias: Questions testing the tendency to seek confirming information & ignore contradictory evidence in investment decisions	Q18 – Q21	Likert Scale
Section F	Herding Bias: Questions testing the tendency to follow market trends, peer recommendations, & social media investment advice	Q22 – Q25	Likert Scale

Table 3.2: Questionnaire Structure & Bias Mapping

3.8 Classification of Data

Data collected in this research can be categorized into two broad categories depending on their measurement scales. The two categories are known as Nominal Data & Ordinal Data. It is important to know how to classify data so that the right statistical tests are applied.

3.8.1 Nominal Data

The nominal level of measurement is the simplest form of measurement & entails the grouping of observations into mutually exclusive categories without any natural order or ranking among the categories. In this study, the following nominal variables have been used:

- Gender – classified into categories like Male & Female. Neither of these categories has an inherent rank or ordering. One category does not stand above or below the other.
- Types of Financial Instruments – categorized as Equities, Mutual Funds, SIP, ETFs, Derivatives, etc.

Nominal variables can be analyzed through frequency tables & percentages while associations b/w them can be analyzed using the Chi-square test.

3.8.2 Ordinal Data

An ordinal scale represents categories that have a specific rank or order to them, although it may not be quantifiable or equal. The following ordinal scale variables will be used in this research study:

- Age: Measured on the basis of 18–20, 21–25, 26–30, & above 30. Although categories are in increasing order, their intervals are not equal.
- Educational Qualification: Measured as Intermediate, Graduate, Postgraduate, & PhD. This is measured on the basis of increasing education qualifications.
- Investment Experience: Measured on the basis of “>” one year, 1 to 3 years, 4 to 6 years, & more than six years. This variable measures increasing market experience of individuals.
- Likert Scale Responses (BaisQuestions): Responses on the Likert scale are measured from 1 to 5.

Since both independent variables as well as dependent variables are measured on ordinal scales, it means that the only relevant non-parametric test that can be used is Spearman's Rank Correlation.

3.9 Reliability & Validity of the Research Instrument

3.9.1 Reliability

In my study, reliability was tested using Cronbach's Alpha Test. Cronbach's Alpha measures the internal consistency of questionnaire items. A Cronbach's Alpha value greater than “0.70” is generally

considered acceptable for behavioural research studies. The Cronbachs Alpha values obtained for all behavioural biases were above the acceptable threshold level, indicating good internal consistency & reliability of the questionnaire items. Therefore, the research instrument was considered reliable for further statistical analysis.

3.9.2 Validity

In the current research study, the following two types of validity have been considered:

Content Validity

The questions of the questionnaire have been constructed in accordance with the established behavioral finance theories as well as the relevant studies conducted in the field of behavioral finance. Questions have been formulated with a view to determining the behavioral tendencies related bias respectively. The formulation of questions on the basis of hypothetical scenarios rather than opinion helped in accurately assessing the actual behavioral tendencies. The questionnaire has been validated by the faculty guide to check its relevancy.

Construct Validity

Questions of the questionnaire have been classified according to different behavioral biases such that a separate set of questions for measuring bias has been formulated to avoid overlapping of constructs.

3.10 Hypothesis Formation

Hypothesis is relationship existing b/w two or more variables which is formally stated in order for it to be tested against the data. In this case, hypotheses are generated in pairs such that there is the null hypothesis (H0), which states that there is no imp. relation, & the alternative hypothesis (H1), which says that there is a imp. relation. The null hypothesis is tested using the pvalue generated from the Spearmans Rank Correlation test at $\alpha=0.05$.

A total of sixteen hypotheses are generated in this research project, involving four demographic variables interacting with four behavioral biases. The list of all hypotheses generated is provided below.

H#	Hypothesis	Independent Variable	Dependent Variable
H1a	There is no significant correlation b/w Gender & Confirmation Bias(H0)	Gender	Confirmation Bias
H1b	There is no significant correlation b/w Age & Confirmation Bias(H0)	Age	Confirmation Bias
H1c	There is no significant correlation b/w Education & Confirmation Bias(H0)	Educational Qualification	Confirmation Bias
H1d	There is no significant correlation b/w Investment Experience & Confirmation Bias(H0)	Investment Experience	Confirmation Bias
H2a	There is no significant correlation b/w Gender & Loss Aversion Bias(H0)	Gender	Loss Aversion Bias
H2b	There is no significant correlation b/w Age & Loss Aversion Bias(H0)	Age	Loss Aversion Bias
H2c	There is no significant correlation b/w Education & Loss Aversion Bias(H0)	Educational Qualification	Loss Aversion Bias
H2d	There is no significant correlation b/w Investment Experience & Loss Aversion Bias(H0)	Investment Experience	Loss Aversion Bias
H3a	There is no significant correlation b/w Gender & Herding Bias(H0)	Gender	Herding Bias
H3b	There is no significant correlation b/w Age & Herding Bias(H0)	Age	Herding Bias
H3c	There is no significant correlation b/w Education & Herding Bias(H0)	Educational Qualification	Herding Bias

H#	Hypothesis	Independent Variable	Dependent Variable
H3d	There is no significant correlation b/w Investment Experience & Herding Bias(H0)	Investment Experience	Herding Bias
H4a	There is no significant correlation b/w Gender & Anchoring Bias(H0)	Gender	Anchoring Bias
H4b	There is no significant correlation b/w Age & Anchoring Bias(H0)	Age	Anchoring Bias
H4c	There is no significant correlation b/w Education & Anchoring Bias(H0)	Educational Qualification	Anchoring Bias
H4d	There is no significant correlation b/w Investment Experience & Anchoring Bias(H0)	Investment Experience	Anchoring Bias

Table 3.3: Summary of All Null Hypotheses

CHAPTER 4

ANALYSIS

The research is underpinned by primary data sourced from respondents through a structured questionnaire. Data obtained in the process of research was analyzed through different statistical techniques such as Descriptive Statistics, Cronbach's Alpha, Chisq. test, Spearmans Rank Correlation & MLR Analysis. The selection of the above mentioned statistics was based on ordinality of Likert Scale data & goals of research. Data analysis will aim at assessing relationship b/w demographic factors including Gender, Age, Educational Qualification, & Investment Experience & behavioral biases including Confirmation Bias, Loss Aversion Bias, Herding Bias & Anchoring Bias. In order to increase reliability of the study, composite scores have been computed for each behavioral bias by taking averages of responses for all biases. Internal consistency reliability of questionnaire measures has been measured using Cronbach's Alpha. The main statistical method for measuring relationship b/w demographic factors & behavioral biases will be Spearmans Rank Correlation coefficient. The reason behind that was ordinal character of the analyzed data.

The Chisq. test was applied in analyzing the relationship b/w demographic variables & behavioural bias groups. The MLR Analysis was used for assessing the relative role played by demographic variables in behavioral biases.

For testing the hypothesis, the statistical significance of relationships was measured through the use of P values at 0.05 level of significance. When the P value was found to be less than 0.05, the null hypothesis was rejected, implying the existence of a statistically imp. relation b/w the variables. However, when the P value was found to be more than 0.05, the null hypothesis was accepted.

Independent Variable	Dependent Variable
Age	Anchoring Bias
Gender	Loss Aversion Bias
Educational Qualification	Confirmation Bias
Investment Experience	Herding Bias

Table 4.1 Independent & Dependent Variables

4.1 Descriptive Statistics

Demographic Factors:

Age of Respondents

Age	No. of Respondents	Percentage
Below 20	86	43%
21-25	57	28.5%
26-30	29	14.5%
Above 30	28	14.0%

Table 4.2 Age of Respondents

Age Group

200 responses

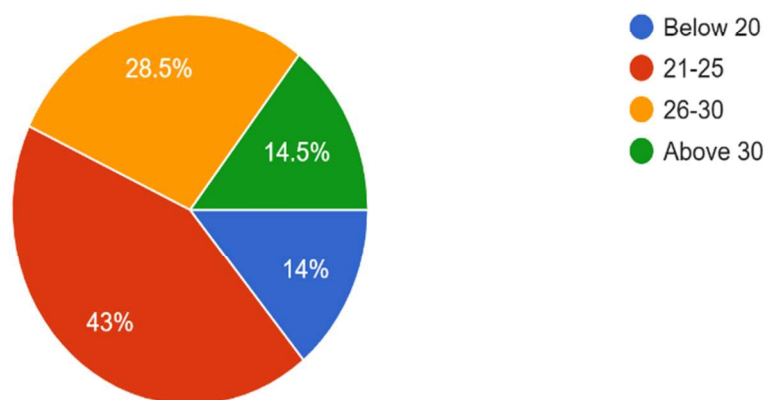


Fig 4.1 Age of Respondents

27

Gender of the Respondents

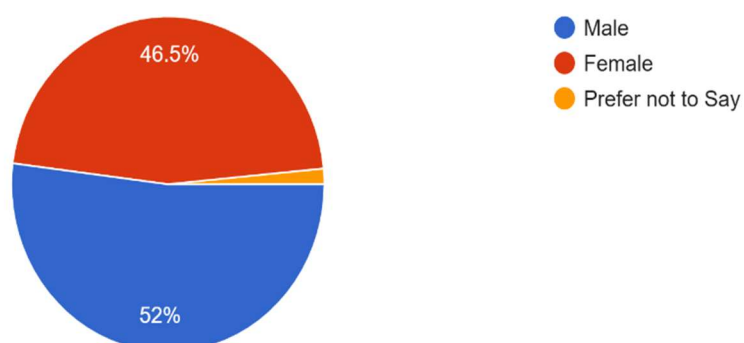
Gender	No. of Respondents	Percentage
Female	104	52.0%
Male	93	46.5%
Prefer not to say	3	1.5%

3

Table 4.3 Gender of the Respondents

Gender

200 responses

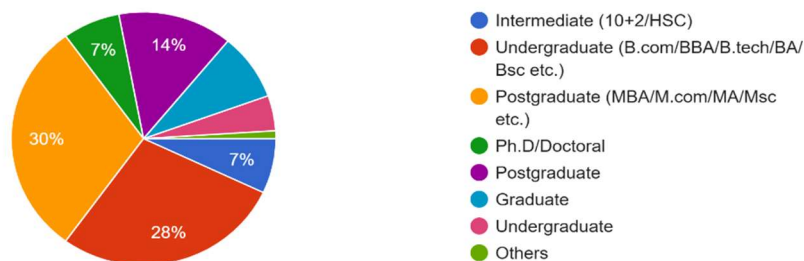
**Fig. 4.2 Gender of the Respondents**

Educational Qualification

Education Qualification	No. of the Respondents	Percentage
Postgraduate (MBA/M.com/MA/Msc etc.)	60	30.0%
Undergraduate (B.com/BBA/B.tech/BA/Bsc etc.)	56	28.0%
Postgraduate	28	14.0%
Graduate	17	8.5%
Intermediate (10+2/HSC)	14	7.0%
Ph.D/Doctoral	14	7.0%
Undergraduate	9	4.5%
Others	2	1.0%

Table 4.4 Educational Qualification

Educational Qualification
200 responses



What is our educational background/ Stream?
144 responses

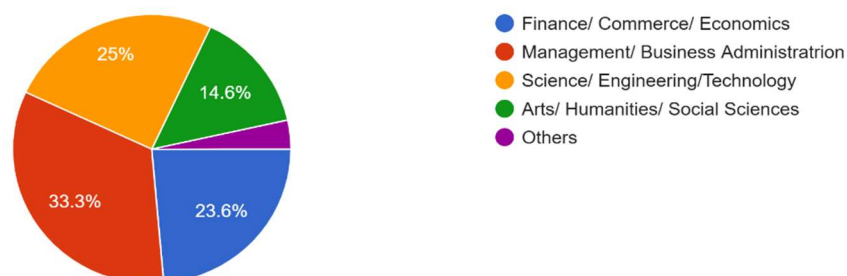


Fig 4.3 Educational Qualification

Investing Experience

Experience	No. of Respondents	Percentage
Less than a Year	71	35.5%
1-3 Years	73	36.5%
4-6 Years	38	19.0%
More than 6 Years	18	9.0%

Table 4.5 Investing Experience

Investment Experience
200 responses

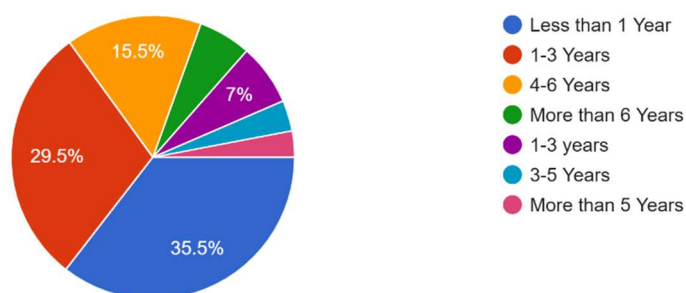


Fig. 4.4 Investing Experience

4.2 Cronbachs Alpha

Analysis using Cronbachs Alpha reliability was performed to determine the internal reliability of the behavioral biases measures through questionnaires. The Cronbacs Alpha coefficient with a score of 0.70 or more can be regarded as satisfactory reliability.

Behavioural Bias	No. of Items	Cronbach Alpha	Interpretation
Anchoring Bias	4	0.761	Acceptable Reliability
Loss Aversion Bias	4	0.739	Acceptable Reliability
Confirmation Bias	4	0.716	Acceptable Reliability
Herding Bias	4	0.821	Good Reliability

Table 4.6 Cronbach Alpha

Interpretation

- The Cronbach Alpha value for questionnaire questions concerning Anchoring Baisis 0.761, which means that reliability was acceptable.
- The Cronbach Alpha value for questionnaire questions concerning Loss Aversion Baisis 0.739, which means that reliability was acceptable.
- The Cronbach Alpha value for questionnaire questions concerning Confirmation Baisis 0.716, which means that reliability was acceptable.
- The Cronbach Alpha value for questionnaire questions concerning Herding Baisis 0.821, which means that reliability was good.

4.3 Chisq. tests for Behavioural Biases

Chisq. test was conducted separately for every individual behavioral bias, in order to evaluate the effect of demographic variables on the types of behavioral bias. The significance level adopted for testing the hypotheses is $\alpha = 0.05$.

Chisq. test – Confirmation Bias

Independent Variable	ChiSquare Value	Degree of Freedom	Pvalue	Decision
Gender	3.684	4	0.4505	Accept H0
Age	12.896	6	0.0447	Reject H0
Educational Qualification	14.372	8	0.0721	Accept H0
Investment Experience	16.524	12	0.1684	Accept H0

Table 4.7 Confirmation Bias Chi Square

Interpretation: Age demonstrated statistically significant relation to Confirmation Bias while Gender, Education & Investment Experience were not found to be significantly related.

Chisq. test – Loss Aversion Bias

Independent Variable	ChiSquare Value	Degree of Freedom	Pvalue	Decision
Gender	2.711	4	0.6073	Accept H0
Age	9.027	6	0.1721	Accept H0
Educational Qualification	18.284	8	0.0191	Reject H0
Investment Experience	17.078	12	0.1467	Accept H0

Table 4.8 Loss Aversion Bias Chi Square

Interpretation: Education had a statistically imp. relation with Loss Aversion Bias, whereas Gender, Age, & Investment Experience had no statistically imp. relation.

Chisq. test – Herding Bias

Independent Variable	ChiSquare Value	Degree of Freedom	Pvalue	Decision
Gender	9.221	4	0.0558	Accept H0
Age	17.429	6	0.0078	Reject H0
Educational Qualification	16.917	8	0.0318	Reject H0
Investment Experience	26.136	12	0.0103	Reject H0

Table 4.9 Herding Bias Chi Square

Interpretation: Statistically imp. relations were found b/w Age, Education, & Investment Experience & Herding Bias, while no statistically imp. relation was observed with Gender.

Chisq. test – Anchoring Bias

Independent Variable	ChiSquare Value	Degree of Freedom	Pvalue	Decision
Gender	13.216	4	0.0103	Reject H0
Age	4.734	6	0.5784	Accept H0
Educational Qualification	11.458	8	0.1762	Accept H0
Investment Experience	17.370	12	0.1362	Accept H0

Table 4.10 Anchoring Bias Chi Square

Interpretation: There was a imp. relation b/w Gender & Anchoring Bias, but no imp. relations were found b/w Age, Education, & Experience.

4.4 Correlation Tests

Confirmation Bias

Independent Factor	Correlation Coefficient	No. of Observations	T Statistic	Degree of Freedom	Pvalue
Gender	-0.081	200	-1.148	198	0.2519
Age	-0.093	200	-1.318	198	0.1887
Education	-0.155	200	-2.201	198	0.0287
Experience	-0.034	200	-0.483	198	0.6290

Table 4.11 Confirmation Bias Test

From the analysis of the data above, one can realize that the Pvalue in the majority of cases is more than 0.05, which is the significance level (Alpha) of the test, when the degree of freedom is 198. But when it comes to Education Level, Pvalue is less than 0.05. From this we can draw a conclusion that:

- "We accept the null hypothesis & come to the conclusion that there was no statistically significant correlation b/w Confirmation Bias & demographic factors like Gender, Age, & Investment Experience." (H0 is accepted)
- "We reject the null hypothesis & come to the conclusion that there was a statistically significant correlation b/w Confirmation Bias & Educational Qualification." (H1 is accepted)

Thus, we understand that Educational Qualification affects Confirmation Bias in investment behavior, but Gender, Age, & Investment Experience have no correlation with Confirmation Bias.

Loss Aversion Bias

Independent Factor	Correlation Coefficient	No. of Observations	T Statistic	Degree of Freedom	P value
Gender	0.036	200	0.510	198	0.6118
Age	-0.159	200	-2.276	198	0.0241
Education	-0.225	200	-3.247	198	0.0014
Experience	-0.175	200	-2.504	198	0.0131

Table 4.12 Loss Aversion Bias Test

However, while analyzing the above data, it becomes clear that the value of Pvalue in respect of Age, Educational Qualification, & Investment Experience is less than 0.05. Therefore, we can say that:

- "We reject the null hypothesis & came to the conclusion that there was a statistically significant correlation b/w Loss Aversion Bias & demographic variables such as Age, Educational Qualification, & Investment Experience." (H1 is accepted)
- "We accept the null hypothesis & came to the conclusion that there was no statistically significant correlation b/w Loss Aversion Bias & Gender." (H0 is accepted)

Herding bias

Independent Factor	Correlation Coefficient	No. of Observations	T Statistic	Degree of Freedom	P value
Gender	0.005	200	0.071	198	0.9432
Age	-0.188	200	-2.689	198	0.0076
Education	-0.147	200	-2.090	198	0.0378
Experience	-0.032	200	-0.456	198	0.6484

Table 4.13 Herding Bias Test

In analyzing the above data, it can be noticed that the Pvalue when it comes to Age & Educational Qualification is less than 0.05. As a result, we can conclude that:

- "We reject the null hypothesis & conclude that there is a statistically significant correlation b/w Herding Bias & Age & Educational Qualification." (H1 is accepted)
- "We accept the null hypothesis & conclude that there is no statistically significant correlation b/w Herding Bias & Gender & Investment Experience." (H0 is accepted)

Anchoring Bias

Independent Factor	Correlation Coefficient	No. of Observations	T Statistic	Degree of Freedom	Pvalue
Gender	-0.119	198	-1.677	196	0.0954
Age	-0.027	198	-0.374	196	0.7084
Education	-0.125	198	-1.767	196	0.0790
Experience	-0.018	198	-0.247	196	0.8052

Table 4.14 Anchoring Bias Test

On analysis of the above data, it may be seen that the value of Pvalue is higher than 0.05, which is the level of significance (Alpha) for the test, where the degrees of freedom equal 196. From the above result, we deduce that:

- “We accept the null hypothesis & concluded that there was no statistically significant correlation b/w Anchoring Bias & demographic variables including Gender, Age, Educational Qualification, & Investment Experience.”

4.5) Multiple Regression Analysis

Multiple regression analysis was used to identify the contribution made by demographic variables (Gender, Age, Education Qualifications, & Investment Experience) on investor's behavioral biases. The regression coefficients, pvalues, & R² were then calculated to determine whether the demographic variables have any influence or not.

Regression Analysis – Confirmation Bias

Variable	Coefficient (β)	Pvalue
const	3.845	0.0
Gender_num	-0.108	0.304
Age_num	-0.076	0.2798
Education_num	-0.14	0.0707
Experience_num	0.038	0.5856

Table 4.15 Regression- Confirmation Bias

R² = 0.033, Adjusted R² = 0.013, Model Significance (pvalue) = 0.1564.

The regression model indicates that none of the demographic variables have a statistically significant effect on confirmation bias.

Regression Analysis – Loss Aversion Bias

Variable	Coefficient (β)	Pvalue
const	3.84	0.0
Gender_num	0.06	0.5711
Age_num	-0.094	0.185
Education_num	-0.164	0.0351
Experience_num	-0.067	0.3388

Table 4.16 Regression- Loss Aversion Bias

R² = 0.069, Adjusted R² = 0.05, Model Significance (pvalue) = 0.0071.

The regression model indicates that Education has a significant negative effect on loss aversion bias.

Regression Analysis – Herding Bias

Variable	Coefficient (β)	Pvalue
const	3.916	0.0
Gender_num	0.032	0.7927
Age_num	-0.226	0.0061
Education_num	-0.119	0.1851
Experience_num	0.074	0.359

Table 4.17 Regression- Herding Bias

$R^2 = 0.054$, Adjusted $R^2 = 0.034$, Model Significance (pvalue) = 0.0288.

The regression model indicates that Age has a significant negative effect on herding bias.

Regression Analysis – Anchoring Bias

Variable	Coefficient (β)	Pvalue
const	3.655	0.0
Gender_num	-0.104	0.2244
Age_num	0.003	0.9517
Education_num	-0.129	0.0408
Experience_num	0.037	0.5163

Table 4.18 Regression- Anchoring Bias

$R^2 = 0.029$, Adjusted $R^2 = 0.009$, Model Significance (pvalue) = 0.2234.

The regression model indicates that Education has a significant negative effect on anchoring bias.

Overall Model Summary

Bias	R^2	Adjusted R^2	Model Pvalue
Confirmation Bias	0.033	0.013	0.1564
Loss Aversion Bias	0.069	0.05	0.0071
Herding Bias	0.054	0.034	0.0288
Anchoring Bias	0.029	0.009	0.2234

Table 4.19 Model Summary

4.6) Findings of the Study

Findings Based on Descriptive Statistics

- Over half of the respondents, comprising 52%, were male investors.
- Respondents in the range of 21 to 25 years were the majority, suggesting young inv. were more involved in investment.
- Most respondents are undergraduate & postgraduate qualifications, implying that the sample was composed of educated investors.
- The respondents had less than three years of investment experience.
- Based on the demographic analysis, there were respondents belonging to different age groups, education levels, genders, & investment experiences.

Findings Based on Cronbach's Alpha Test

- Cronbachs Alpha values of all the behavioral biases were more than 0.70, suggesting reliability in the test.
- Herding Baishad the highest Cronbachs Alpha of 0.821.
- Internal consistency was present in Anchoring Bias, Loss Aversion Bias, & Confirmation Baisas well.
- Reliability testing proved that the questions posed in the questionnaire were fit for statistical tests.

Findings Based on Chisq. test

- Statistically Significant Association was found b/w Age & Confirmation Bias.
- Educational Qualification demonstrated Statistically Significant Association with Loss Aversion Bias.
- Age, Educational Qualification, & Investment Experience indicated Statistically Significant Association with Herding Bias.
- Gender demonstrated Statistically Significant Association with Anchoring Bias.
- Conducted ChiSquare analysis clearly demonstrated the variability of behavioural biases among various demographic groups.

Findings Based on Spearmans Rank Correlation Test

Confirmation Bias

- Statistically, there was a negative correlation b/w Educational Qualification & Confirmation Bias.
- The individuals who had higher educational qualifications displayed low confirmation bias.

- However, no statistically imp. relations existed b/w Gender, Age & Investment Experience with Confirmation Bias.

Loss Aversion Bias

- Statistically, there was a -ve correlation b/w Age & Loss Aversion Bias.
- Statistically, there was a -ve correlation b/w Educational Qualification & Loss Aversion Bias.
- Statistically, there was a negative correlation b/w Investment Experience & Loss Aversion Bias.
- Loss Aversion Bias was least likely to be displayed by older, educated & experienced investors.
- There was no statistically imp. relation b/w Gender & Loss Aversion Bias.

Herding Bias

- Age was found to be negatively correlated with Herding Bias.
- Educational Qualification was negatively correlated with Herding Bias.
- Older & more educated individuals were less likely to engage in herding while making investment decisions.
- Investment Experience & Gender were not found to be statistically significant with Herding Bias.

Anchoring Bias

- It is seen that Anchoring Bias does not have any relationship with demographic factors like Gender, Age, Educational Qualification, & Investment Experience.
- It means demographic characteristics do not impact Anchoring Bias.

Findings Based on MLR Analysis

Confirmation Bias

- Statistically, the Regression Model for Confirmation Bias proved to be insignificant.
- Educational Qualification exhibited a negative impact on Confirmation Bias.
- Demographic factors taken together were found to explain a minor percentage of Confirmation Bias.

Loss Aversion Bias

- The model used for Loss Aversion Bias is statistically significant.

- Educational Qualification & Investment Experience significantly influence Loss Aversion Baisnegatively.
- Demographic factors explain 6.9% variance in Loss Aversion Bias.

Herding Bias

- Regression Model of Herding Bias: Statistical significance
- Age & Educational Qualification: Significant negative impact on Herding Bias
- Demographic variables: Explained a total of 5.4% variance in Herding Bias

Anchoring Bias

- Regression Model of Anchoring Bias: Not statistically significant
- All Demographic variables: No significant impact on Anchoring Bias
- Very tiny proportion of variance in Anchoring Baisexplained by demographic variables

4.7) Recommendation

Financial literacy has gained considerable significance in the current changing financial scenario since there is a direct or indirect link of an individual with investments. Investment decisions are made based on investor's biases, & this had adverse effect on performance of investment. Hence, it is imperative to increase the financial literacy & decision-making skills of the investor.

Based on the findings of the study, the following recommendations are suggested:

- Young investors in the age range of 21-25 years must not make any investment based on rumours or hype prevailing in the market. They must base their investment on thorough analysis & study of the business environment & growth potential for companies before investing.
- The investors need to develop the practice of conducting independent research & looking at various aspects of the situation before they make their investments. This is done to minimize the problem of confirmation bais& enhance the rational thinking process.
- The less educated investors in terms of financial & economic education must take care to increase their knowledge level by becoming financially literate. They can do this through studying basic finance & economics so that they become aware of irrational behavior in investments.
- The novice & young investors must initially opt for the safer investment options like Mutual Funds, SIPs, & ETFs, & then move on to riskier investment options.

- As investors, one needs to be cautious against market trends or herds when putting money into the stock market. This is because they need to concentrate on their goals & risk tolerance.
- An investor must always ensure that his/her investment portfolio is diverse. One should not invest all funds in one asset or sector but rather spread the investments.
- An investor must have an investment approach that is long term rather than short term. He/she should avoid making emotional decisions when there are changes in the markets.
- The investor must continually evaluate & rebalance his investment portfolio based on the market situation, income, financial objectives, & his risk attitude.
- The experienced investor must advise the new investor about proper investment strategy, risk management, & rational thinking, which helps to reduce any behavioral biases.
- Anchoring bias must be prevented by avoiding emotional attachments to past prices & previous information when investing in the future.
- The financial advisor & certified investment planner may play a vital part in advising investors about proper financial behavior & rational financial planning. Hence, an investor may always seek professional advice in finance.
- Financial institutions, regulatory bodies for financial markets, stock exchanges, & financial intermediaries must aggressively pursue financial literacy programmes, investor awareness initiatives, & behavioural finance training to enhance decision-making capacity of the investors.
- Regulatory bodies & financial institutions can motivate investors to take the assistance of e-financial education & awareness sessions to become familiar with behavioural biases & risk management techniques.
- Investors are advised to develop specific financial goals like retirement savings, generating wealth, educating their kids, contingency savings, & future financial stability. A goal-directed investing strategy will minimize rash & emotional investments.
- Generally, growing awareness of financial matters & market experience can go a long way towards minimizing behavioral biases & making sound investments.

4.8) Limitations of the Study

There are limitations of research that are intrinsic to it & these may have some impact on the scope & outcomes of research. Some of these limitations may apply to this particular research & these are discussed below.

Sample Size: Total 200 participants were part of this survey carried out as a means of collecting data for research. The sample size may have been sufficient for research purposes but bigger sample size would have provided more reliable information. A larger sample would have comprised more varied investors from different socio-economic strata.

Sample Demographics: Most of the respondents that comprised sample of investors were from younger generation & consisted of graduates & post graduates. Thus, the information provided by them may not truly represent those of people from older generation & those without formal education.

Geographical Constraints: Participants used for carrying out this research were from limited geography & institutions thus confining the applicability of study to those of different geographical & cultural backgrounds.

Survey Questionnaire: With regard to the kind of questionnaire used for conducting this survey, the answers provided by respondents may have reflected what seems more logical rather than true.

Complexity of Behaviour: Human behaviour involves various psychological & emotional factors. There may arise cases where all the elements involved in an investor's behaviour cannot be measured using a questionnaire approach.

Time Period Used for Research: The research was conducted during a particular time period, which is comparatively small. An extended time period will not only give the researcher more scope for research but also increase the number of samples available.

Certain Biases Were Selected for the Study: Various kinds of biases are present. However, the ones used for this study include "Anchoring Bias, Loss Aversion Bias, Confirmation Bias, & Herding Bias". Other significant biases include overconfidence bias, mental accounting bias, regret aversion, & framing effect.

Dynamics of Market Environment: Attitude or decision making process of the investor depends on some factors like the dynamics of market environment & economic factors. Therefore, results derived from this research will remain valid only for a certain market environment.

CHAPTER 5

CONCLUSION

The current research aimed at investigating the influence of demographic variables on behavioral biases in investors. Four significant behavioral biases have been considered for this purpose – Confirmation Bias, Loss Aversion Bias, Herding Bias, & Anchoring Bias – & their association with demographic variables like Gender, Age, Educational Qualification, & Investment Experience has been studied. The outcome of the research indicates that behavioral biases are affected by the demographic variables to varying degrees. Out of all the demographic variables, Educational Qualification has proven to be one of the most crucial in influencing investor behavior. It was observed that investors with higher educational qualifications showed lesser confirmation bias, loss aversion bias, & herding bias. This implies that financial knowledge plays a key role in making logical & rational investment decisions. It was also observed that other two variables, Age & Investment Experience, played an important role in deciding specific types of behavioral biases in investors. It was observed that loss aversion bias & herding bias were least observed among older investors. Chi-Square analysis also reinforced the existence of imp. relation b/w some other demographic & bias variables. The imp. relations were found to be existing b/w Age & Confirmation Bias, Educational Qualification & Loss Aversion Bias, Age, Educational Qualification & Investment Experience with Herding Bias, & finally Gender & Anchoring Bias. From the results of Spearman's Rank Correlation, it can be concluded that Educational Qualification had a significant negative relationship with Confirmation Bias. Similarly, Loss Aversion Bias had a significant negative correlation with Age, Educational Qualification, & Investment Experience, while Herding Bias had a significant negative correlation with Age & Educational Qualification. On the other hand, Anchoring Bias didn't have any imp. relation with the majority of the demographic variables. Analysis of Reliability was carried out through Cronbach's Alpha, which revealed that the questions employed in this study were highly reliable & consistent for conducting research on behavioural finance. The results obtained from Multiple Linear Regression showed that demographic attributes accounted for a certain degree of variance in Loss Aversion Bias & Herding Bias among investors.

To sum up, this study reveals that investors' behaviour cannot be entirely termed rational & is highly influenced by their psychological & demographic attributes. Behavioural biases play an important role in investment decisions, & may also have an impact on the financial performance of investors. Thus, enhancing financial literacy & improving investment decisions can assist investors in reducing behavioural biases.

Furthermore, this research brings out the increased relevance of behavioral finance in studying current financial markets. As opposed to traditional finance theories that consider rational decision-making in their models, behavioral finance considers the significant role that emotions & heuristics play when it comes to investment decisions. The results of this research could prove helpful in the design of strategies aimed at improving investor consciousness by investors, financial advisers, educational institutions, policy makers, & financial regulators.