IMPACT OF BEHAVIORAL BIASES ON INVESTMENT DECISIONS OF INVESTORS IN BANGALORE

Dr. B. Janakiraman
Dean-Research-PG Programmes
GIBS-B School
Managed by Lord Sri Krishna International Educational Trust
ITI Colony Bangalore 560085

Mrs. Amtul Naseeb
Asst. Professor-PG Programmes
GIBS-B School
Managed by Lord Sri Krishna International Educational Trust
ITI Colony Bangalore 560085

Abstract:
A paradigm shift has taken place in the field of financial economics from standard finance to a new field of finance named as Behavioural Finance in the last two and half decade. Behavioural Finance enriches the standard finance propositions or models by giving perceptivity from psychology, neuroscience, sociology, organisation behaviour and law and explains how the cognitive crimes and passions of investors influences their decision- making process. Behavioural Finance is a developing field that combines the understanding of behavioural and cognitive psychology with financial decision- making process. It's the fastest growing arena in the field of academic disquisition in finance. This investigates whether behavioural impulses that are apparent among Indian Investors in general, Bangalorean investors in particular and which bias is most prominent among the investors. This study also analyses some demographic variables and its impact on behavioural biases.

Keywords: Confirmation bias, Availability bias, Overconfidence bias, Loss aversion bias, Recency bias, Herding bias, Anchoring bias

Introduction:
Behavioural Finance is an evolving area that associates the knowledge of behavioural and cognitive psychology with the process of financial decision making. It is the fastest developing field in the arena of finance. The finance area has been governed by the traditional finance theories or standard finance theories or classical financial theories starting from the mid of 18th century. markets are efficient, investors make rational decisions and all the market information are included in the stock prices were some of the assumptions of these theories. Psychologists challenged these assumptions and argued that financial decisions are influenced by emotional biases and cognitive errors. These errors influence investors to act in an irrational manner. This paper investigates the presence of various behavioural biases amongst Indian Investors.

1. Confirmation bias
Confirmation bias is the normal human propensity to look for or highlight information that corroborates an existing deduction or hypothesis. In our view, confirmation bias is a foremost cause for investment errors as investors are frequently overconfident because they keep receiving data that seems to corroborate the decisions they have taken. This overconfidence can end in a pseudo belief that nothing is likely to go wrong, which enhances the risk of being unaware when something goes really wrong.

To reduce the threat of evidence bias, we try to defy the status quo and gain information that instigates us to probe our investment thesis. In fact, we are always looking to reverse the investment case to study why we might be wrong. We frequently revisit our investment case and question our assumptions. It is much more significant to ask yourself why you could be incorrect than why you could be right.

In our view, the strength of many of most accomplished investors has been their capability to investigate their confirmation bias and to see all dimensions of a problem.

Confirmation bias may result in clients investing more in a particular stock or sector. Concentrating too narrowly on a specific type of stock or sector makes clients vulnerable to company- or sector-specific downturns, which can make their investments misaligned with their long-term objectives. Confirmation bias may the clients to ignore viewing market conditions realistically.

Open and effective communication may combat the confirmation bias. Questioning clients about their long-held investment opinions and gathering the viewpoints and providing alternative points of view may pull them away from this bias.

2. Availability bias

Availability bias indicates to the inclination of investors to extrapolate their personal trends and contemplate them to be the market reality. Hence, the clients may assume that even though the recession continues, the market will continue to flourish. Availability bias is called the availability bias because it is contingent upon the user recalling their experiences. The incidents which are most striking or deeply experienced are the experiences most quickly available for decision making and hence this bias is known as the "availability bias."

Availability bias describes how the beliefs of an investor can develop influences their experiences which can lead to going completely out of sync with actuality and realism.

Incidents which may Impact Availability Bias

All occurrences do not influence availability bias in the same manner. Psychologists have suggested that some types of occurrences that have probability to be recalled. Some features of such occurrences are as follows:

• Incidents which occur more often are more prone to be recalled

• Incidents which are uncommon or excessive in some way are having more possibilities to be recalled

• Negative incidents are having more chances of easy recall than positive incidents.

• Recent incidents are having more chances of easy recall than incidents which have happened in the past.

Availability bias negatively influences the interests of investors in the following ways:

As an outcome of availability bias, investors are often trapped to mitigate the wrong risk.

Investors with availability bias are more prone to invest more in stocks and sectors that they regularly hear about. They may not select the profitable stocks due to investment rationale. Instead, they are likely make investments in stocks and sectors that are current in the news.

Investors with availability bias may overreact to market news. Investors with availability bias get lured away with all the negative advertising in the news. This is the reason that they tend to overreact and this leads to a detrimental impact on their investments.

3. Overconfidence bias

Majority of the people incline to overvalue their skills, be it shifting an electrical socket or handling their own investments. Behavioural finance has a label for this ego-driven propensity: overconfidence bias. While making investments, overconfidence bias frequently directs people to overrate their interpretation of fiscal requests or specific investments and be indifferent to the data available and the advice of the experts. This ends in ill-advised bids to time the market or invest in risky investments which they think a sure thing.

Overconfidence bias deceits the brain into believing that it is probable to regularly take advantage in the market by investing in perilous investments. But the testimony shows that even financial experts with the help of formidable tools at their command find it difficult to outpace the market. It

is not a surprise that for the run-of-the-mill investor, overconfidence may result in poor portfolio accomplishment. In addition overconfidence of investors may steer them to misjudge their tolerance for risk, resulting in investment tactics that don't support their needs.

Overconfidence bias can be tackled in a number of ways. Firstly urge the investors to consider the perspective of other people, like family members and friends as we tend to be more objective when considering the decisions of others.

Secondly take the investors through their past investment decisions and deliberate how they worked out. If possible demonstrations can be shown, how overconfidence led to poor results over time. Finally, we may ask the investors to perform a "pre-mortem." This process, propagated by Nobel Prize–winning economist and psychologist Daniel Kahneman, contains imagining potential results from a future outlook—perhaps 5, 10, or 20 years down the line. Both the positive outcomes and the negative outcomes are imagined. This may assist investors to realise potential risks and bloopers that they might have overlooked due to their overconfidence.

4. Herding bias

Herd mentality or behaviour can be explained as the inclination to go with the group. "Do as they do" or I bought the stock because others are buying it" is an illustration of herd mentality. The combined decisions of the herd, will either drive up or drive down the share value.

These biases guide to bad investment decisions since they are not data based. Investors can take impartial decisions only by developing awareness of and managing these innate biases. Understanding and developing awareness about the biases can enhance investment outcomes

5. Recency Bias

The influence of recent events or experiences impacts investment decisions. This relates to both positive and negative experiences. Relying on their experiences, investors anticipate the event to recur in the future. In a bull market, investors blindly keep investing at crazy valuations imagining markets to keep rising perpetually. Instead, a fall in stock prices may initiate panic situations and investors would overlook the buying opportunities.

6. Loss aversion Bias

Loss aversion is the inclination to avoid losses over realizing equivalent gains. Generally speaking, people feel agony from losses much more acutely than they feel delight from the gains of the same extent. Loss aversion bias characteristically gets displayed in financial decisions: people frequently need an extra—and sometimes significant—gain to take financial risks that might end up in a loss.

Loss aversion can end up in customers dodging threat, guiding to exorbitantly conservative portfolios that don't enable the returns they need to accomplish their objectives. It can also drive customers to sell during a stock market slump simply to evade additional losses—which could denote they skip out on profits when the stocks they have marketed rebound.

Conversely, loss aversion can guide clients to stick on to investments that have deteriorated in value to avoid achieving a loss in their portfolio, even when selling is the decision of prudence. Loss aversion is a prime reason why so many investors underperform the market.

Loss aversion is entrenched in a deep-seated instinctual urge to avoid pain. Taking decisions before market volatility has a possibility to play on clients' feelings can aid them from making emotionally stimulating decisions. Work with the customers to set up procedures and objective rules for buying, selling, and rebalancing, predominantly when confronting difficult market conditions that need a more systematic approach.

7. Anchoring Bias

Anchoring is a cognitive bias in which the usage of a random standard such as a purchase price or sticker price involves a excessively high credence in the person's decision-making process.

An anchoring bias can instigate a financial market partaker, such as a financial analyst or investor, to create an incorrect financial decision, such as purchasing an overvalued investment or selling an undervalued investment.

Anchoring bias can be present anywhere in the financial decision-making method, starting from key prediction inputs, such as sales quantities and commodity prices, to final yield like cash flow and security prices.

Studies have revealed that certain factors can alleviate anchoring, but it is difficult to circumvent altogether, even when people are compelled to be aware of the bias and intentionally try to avoid it. Telling people about anchoring and counselling them to "consider the opposite" can minimise, but not eliminate, the effect of anchoring.

Review of Literature:

Gupta, Goyal, Kalakbandi & Basu, (2018) showed substantiation of the presence overconfidence bias and its continuance during pre-, during- and post- recession periods by collecting sub-samples from China and India for their study. Disproportionate trading which trails market returns is suggested as the overconfidence and withstands for the longer period in the Chinese and Indian markets unlike the previous researchers who have concentrated on developed markets. The Indian investors are found to be less overconfident than Chinese investors in each subsample.

Author Name and Year		Findings of the research
Gupta et. al	2001	Studied and evaluated the design of investor's penchants among mutual fund organizations/schemes and other financial products collecting data from a sample of 312 household investors. The research established that Mutual fund scheme UTI owned US 64 was the most widespread but its status with regard to equity schemes was fainter than others.
Kiran, D., & Rao, U. S.	2004	Categorized the investor group subdivision depending on demographic and psychographic characteristics.
		Employing Multinomial logistic characteristics of the individual were classified collecting data from 96 respondents.
Mamta	2014	Researched the presence and analyzed the impact of Heuristic Driven and Frame in the study
Mounika (2017)	2017	Investigated the applicability of behavioral finance on investment decisions by studying the impact of behavioral biases on investors' choices. The study established that investors do not always act in judicious and rational manner and behavioral biases have a bearing on investor's decision making.
Kapoor & Prasad (2017)	2017	Elucidated that investors are swayed by psychological biases and these biases can result in their irrational investment behavior and again it will pave way for suboptimal decision
Atif Sattar, Toseef, & Fahad Sattar (2020)	2020	Findings have shown that there was an effect of behavioral biases on investment decisions. Empirical results determined that investment decision making has been affected by heuristic behaviours more when compared with the prospects and the characteristics of personality.
Nevins, D. (2004)	2004	Described Overconfidence as overestimation of their capability by investors to predict market events, and as concluding result investors often go out on a limb deprived of getting similar returns.
Statman et al. (2006)	2006	Deliberated that some investors sense overconfident about the significance of active trading after they obtain positive portfolio returns, and feel less overconfident once they acquire negative portfolio returns.
Jaya, M.P. (2014)	2014	The study found out that male investors are more overconfident. It also found out that in case of the intraday traders; traders with high practice and investors of newest companies are shaken by overconfidence bias
Khan Y. et al. (2017)	2017	This research found that overconfidence bias has huge and definite

		impact on investors' yield.
Kurniawati D. et al.(2019)	2019	The research concluded that overconfidence bias and selfcontrol bias have enormous positive impact on investment decisions made by investors during IPO investments.
Baker H. et al. (2019)	2019	This study found that financial literacy is not linked to overconfidence bias.
Kim, K.A., Nofsinger, J.R., 2005	2005	The research found out a high price impact of institutional herding in the Japanese stock market.
Demirer, R., & Kutan, A.M. 2006	2006	Analyzed that small capitalization stocks and found that herding is likely in large number of retail investors in nonfinancial sectors.
Guo and Shih (2008)	2008	Studied the herding pattern in high tech stocks in Taiwan and concluded that more noteworthy proof of return dispersion in hightech industries compared to traditional industries.
Fu and Lin (2010)	2010	Concluded that the unequal reactions exist amongst investors. Investors' tendency toward herding is quietly higher during market downstream
Choi S. (2016)	2016	Found that offline investors have stronger herding behaviour than online investors. Generally old age offline investors have more faith on information offered by their friends and family members because their access to information is limited on account of their old age.
Dewan, P., & Dharni, K. (2019)	2019	Explained herding as how individuals follow each other together in a group and dotcom bubble was result of herding bias and even same thing is happening in crypto currency.
Mahina et al. (2017)	2017	On Analysis the study found that loss aversion bias highly disturbed investment in Rwanda stock market. This study further scrutinized that investors at the stock market incline to be more repentant about holding loss making stocks too long than selling winning ones too soon.
Kumar et al.(2018)	2018	Researched that how far gender of the investors has impact on loss aversion in investors and also investments made by the investors are impacted by loss aversion bias.

Objectives of the study:
The specific objectives of the study are:
1. To find out the role of demographic variables like, gender, age etc., on behavioural biases.
2. To examine the level of various behavioural biases amongst investors
3. To enlist the bias that is most pronounced amongst the Indian respondents.

Data collection:
Primary Data:
Primary data has been collected from the investors in Bangalore. A wellstructured Questionnaire containing 7 items has been used for collecting data from the employees. The questionnaire was administered to around 130 investors and around 107 responded to the survey. Questionnaire assesses behavioural biases like Confirmation, Availability, Overconfidence, Loss Aversion, Recency, Herding and Anchoring are impacting the investment decisions. It uses 5 point scale. Higher scores on the dimension indicate higher impact.
Secondary data
The secondary data has been collected from published reports, magazines & journals and Internet.
Limitations of the Study
 Following are the limitations of the study:

a. As the study was an academic one, it was limited by cost, time and geographical coverage.
b The study suggested certain initiatives for avoiding the biases and it depends on the individuals t embrace it while making investment decisions
c. Over generalisation of the findings and suggestions may not be applicable.

Reliability Statistics

| Table 1.0 Reliability Statistics	
Cronbach's Alpha	N of Items
0.745	7

Table No.1.0 shows the reliability statistics and proves the data could support 74.5 percentages reliable to do this analysis. This showed that the reliability of the questionnaire for Behavioural Biases reached the position required by George and Malerys estimation standards. The questionnaire has undergone Cronbach Alpha testing for assessing its reliability and he values given below The alpha coefficient for the seven items is 745, implying that the terms are having relatively high internal consistency. The questionnaire used n this study consists of 7 terms in total, each item measuring beliefs about variety of behavioural biases. Each item is composed of a Likert 5point scale ranging from 1 point for 'strongly disagree' to 5 points for 'strongly agree', and a higher score means a higher bias towards that actor. n his study, he reliability of the behavioural bias was Cronbach's α=0.745.

Data Analysis and interpretation:
Table 1-Overall analysis of Behavioural Biases

Bias	Mean Scores
Confirmation bias	3.8
Availability bias	3.62
Overconfidence bias	3.64
Loss aversion bias	3.34
Recency bias	3.18
Herding bias	3.54
Anchoring bias	3.55

Chart 1-Overall analysis of Behavioural Biases
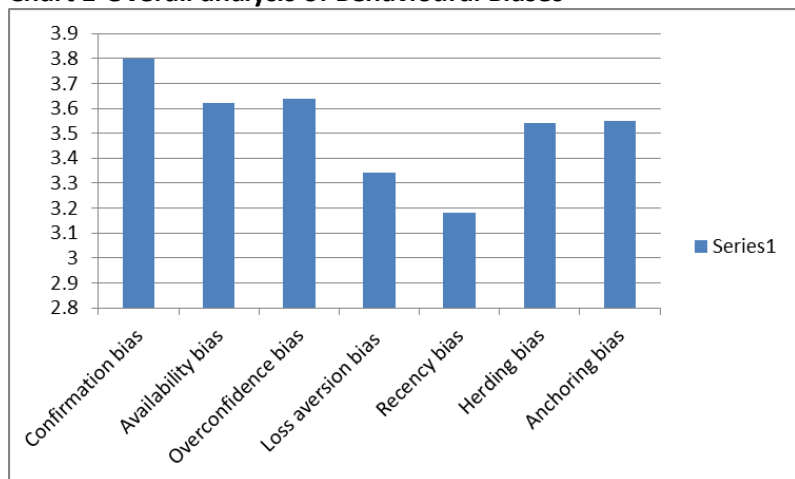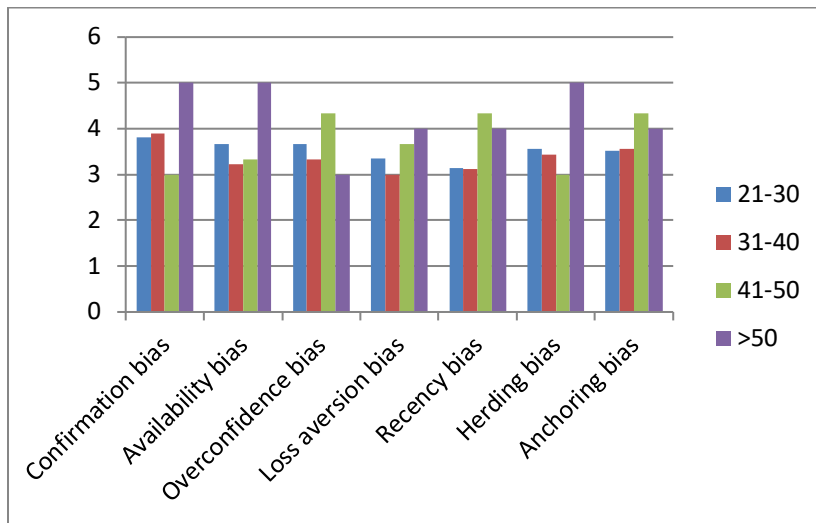

Interpretation:
The mean scores indicate varying levels of each behavioural bias among the participants, with confirmation bias and overconfidence bias being relatively higher, while recency bias and loss aversion bias are comparatively lower.

Table 2-Age-wise analysis of Behavioural Biases

	21-30	31-40	41-50	>50
Confirmation bias	3.80	3.89	3	5
Availability bias	3.66	3.22	3.33	5
Overconfidence bias	3.66	3.33	4.33	3

Loss aversion bias	3.36	3.00	3.67	4
Recency bias	3.14	3.11	4.33	4
Herding bias	3.55	3.44	3	5
Anchoring bias	3.52	3.56	4.33	4

**Chart 2-Age-wise analysis of Behavioural Biases**

Interpretation

Different age groups display varying levels of behavioral biases. The >50 age group shows higher levels of confirmation bias, availability bias, loss aversion bias, recency bias, herding bias, and anchoring bias. The 41-50 age group exhibits relatively high levels of overconfidence bias, recency bias, herding bias, and anchoring bias. The 21-30 age group demonstrates higher levels of confirmation bias, availability bias, and overconfidence bias. The 31-40 age group generally shows moderate levels of most behavioral biases.

Table 3 Gender-wise analysis of Mean scores of Behavioural Biases		
	Female	Male
Confirmation bias	3.85	3.75
Availability bias	3.83	3.43
Overconfidence bias	3.57	3.70
Loss aversion bias	3.17	3.49
Recency bias	3.12	3.23
Herding bias	3.43	3.64
Anchoring bias	3.43	3.66

**Chart 3 Gender-wise analysis of Mean scores of Behavioural Biases**
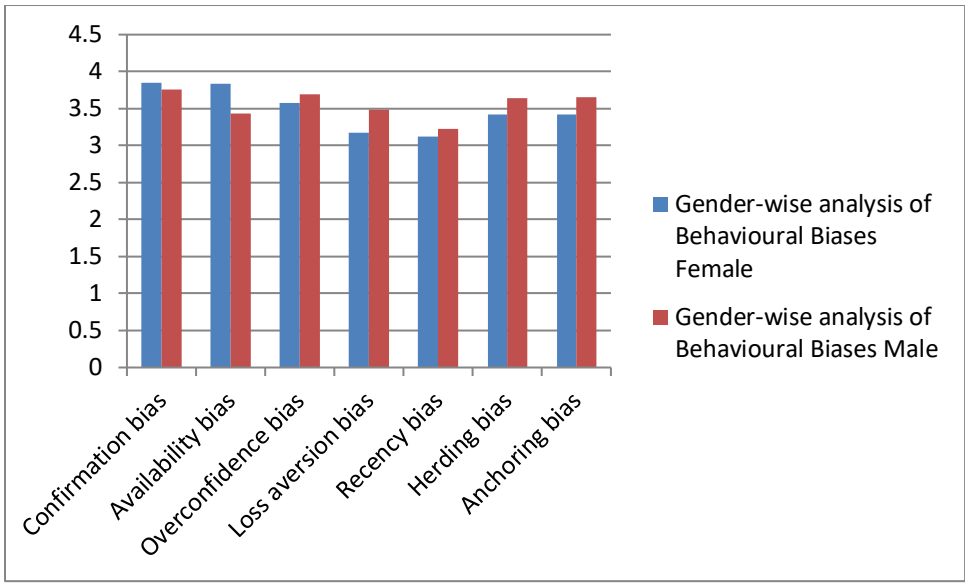
Interpretation

While there are some minor differences in the mean scores of behavioral biases between females and males, the variations are generally minimal. Both genders exhibit relatively similar levels of confirmation bias, availability bias, recency bias, and anchoring bias. However, males tend to display slightly higher levels of overconfidence bias and loss aversion bias compared to females, while females show a slightly lower level of herding bias. It is important to note that these differences are subtle, and individual variations within each gender can still exist.

Qualification-wise analysis of mean scores of Behavioural Biases		
	UG	PG
Confirmation bias	3.693548387	3.973684211
Availability bias	3.548387097	3.736842105
Overconfidence bias	3.564516129	3.763157895
Loss aversion bias	3.290322581	3.421052632
Recency bias	3.112903226	3.289473684
Herding bias	3.483870968	3.631578947
Anchoring bias	3.483870968	3.657894737

Chart 4 Qualification-wise analysis of mean scores of Behavioural Biases
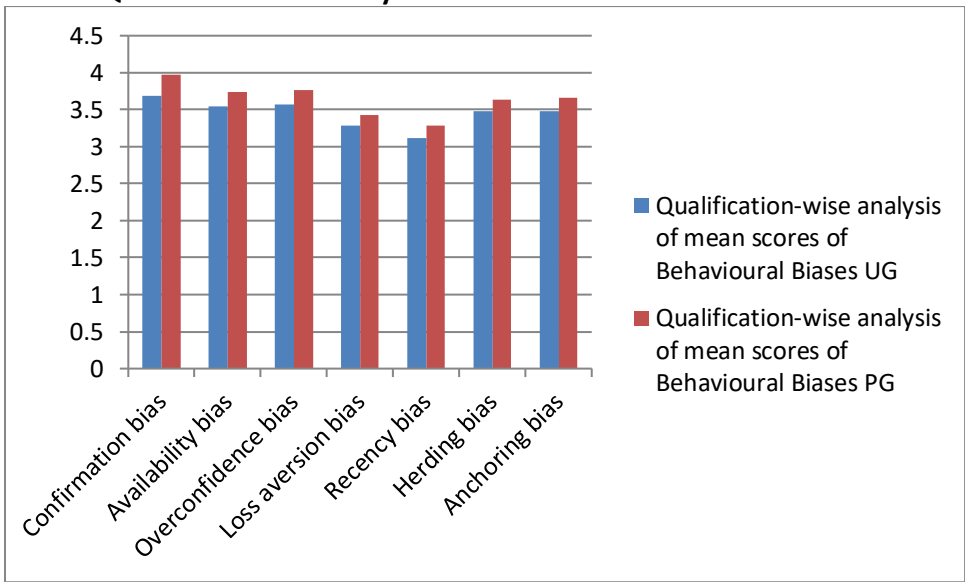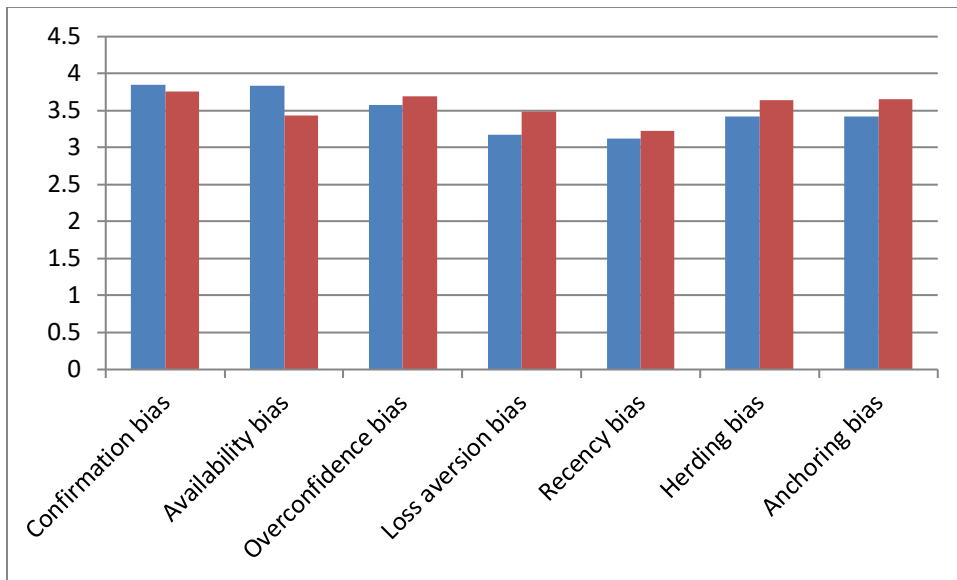
Interpretation

Respondents with a postgraduate (PG) qualification generally tend to exhibit higher mean scores for confirmation bias, availability bias, overconfidence bias, loss aversion bias, herding bias, and anchoring bias compared to those with an undergraduate (UG) qualification. However, the differences between the two qualification levels are relatively minor. Both groups generally display moderate levels of these behavioral biases, with only slight variations observed in certain biases. It is important to note that individual differences within each qualification level can still exist.

Experience-wise analysis of mean scores of Behavioural Biases		
	<10 years	11-20 years
Confirmation bias	3.811111111	3.7
Availability bias	3.633333333	3.5
Overconfidence bias	3.622222222	3.8
Loss aversion bias	3.388888889	2.9
Recency bias	3.155555556	3.4
Herding bias	3.577777778	3.2
Anchoring bias	3.522222222	3.8

Chart 5 Experience-wise analysis of mean scores of Behavioural Biases

Interpretation

Respondents with less than 10 years of experience generally tend to exhibit slightly higher mean scores for confirmation bias, loss aversion bias, recency bias, and herding bias compared to those with 11-20 years of experience. On the other hand, Respondents with 11-20 years of experience show slightly higher mean scores for overconfidence bias and anchoring bias. However, the differences between the two experience levels are relatively minor. Both groups generally display moderate levels of these behavioural biases, with only slight variations observed in certain biases. It is important to note that individual differences within each experience level can still exist.

Findings of the study:
The findings of the study based on the data analysis is given below:
1. Overall Analysis of Behavioural Biases (Table 1):

Confirmation bias and overconfidence bias are relatively higher among participants. Recency bias and loss aversion bias are comparatively lower.
2. Age-wise Analysis of Behavioural Biases (Table 2):

The >50 age group shows higher levels of various biases, including confirmation bias, availability bias, loss aversion bias, recency bias, herding bias, and anchoring bias. The 41-50 age group exhibits relatively high levels of overconfidence bias, recency bias, herding bias, and anchoring bias. The 21-30 age group demonstrates higher levels of confirmation bias, availability bias, and overconfidence bias. The 31-40 age group generally shows moderate levels of most behavioural biases. Gender-wise Analysis of Behavioural Biases (Table 3):

3. Minor differences exist in mean scores between females and males.
Both genders display similar levels of confirmation bias, availability bias, recency bias, and anchoring bias.
Males tend to exhibit slightly higher levels of overconfidence bias and loss aversion bias. Females show slightly lower levels of herding bias. Qualification-wise Analysis of Behavioural Biases (Table 4):
4. Qualification-wise analysis of mean scores of Behavioural Biases ; Respondents with a postgraduate (PG) qualification generally have higher mean scores for various biases compared to those with an undergraduate (UG) qualification. Differences between the two qualification levels are relatively minor. Both groups generally display moderate levels of these behavioural biases.

5. Experience-wise Analysis of Behavioural Biases (Table 5): Respondents with less than 10 years of experience tend to exhibit slightly higher mean scores for confirmation bias, loss aversion bias, recency bias, and herding bias. Respondents with 11-20 years of experience show slightly higher mean scores for overconfidence bias and anchoring bias. Differences between the two experience levels are relatively minor. Both groups generally display moderate levels of these behavioural biases.

In summary, the study suggests that different demographic groups (age, gender, qualification, and experience) tend to exhibit varying levels of behavioural biases, but these differences are generally subtle. Confirmation bias and overconfidence bias appear to be common among participants, while biases like recency bias and loss aversion bias are less pronounced. However, it's important to note that individual variations within each group can still exist.

Conclusion:
The discipline of behavioural finance has developed in response to solve the complications faced by the traditional finance field. In principle, behavioural finance describes that investment choices not always induced based on prudence and logic. Behavioural finance also strived to comprehend the investment market anomalies y undoing the two suppositions of standard finance, that is, (i) investors do not update their views accurately and (ii) there is a systematic disparity from the normative procedure in making investment decisions.in the 1980s, behavioural finance has developed as an alternative viewpoint that combined he behavioural and psychological facets n economic and financial decision-making or n a different sense we can fathom that this field of behavioural finance offers behavioural and psychological descriptions.

Behavioural finance comprises of various behavioural biases based on an individual social an emotional perception and tolerance. The current study aims to establish the impact of behavioural biases on investment decision making of individuals Mainly seven behavioural biases are taken into consideration for studying in the current research. The study concluded that two, namely overconfidence bias and confirmation bias, have a strong influence on the investment decisions of individuals, in general though different demographics have different biases impacting hem The analysis brought of the present study has put forward many issues or further research in the future, research can be performed to study the other biases that are not incorporated in the present study. Also, the influence of decisions of individuals and institutions can be studied on mutual funds as well.

References:

1. Ahmad, M. (2020), "Does under confidence matter in shortterm and longterm investment decisions? Evidence from an emerging market", Management Decision, Vol. 59 No. 3, pp. 692709.
2. Almansour, B.Y. and Arabyat, Y.A. (2017), "Investment decision making among Gulf investors: behavioural finance perspective", International Journal of Management Studies, Vol. 24 No. 1, pp. 4171.
3. Baker, H. K., & Ricciardi, V. (2014). How Biases Affect Investor Behaviour. The European Financial Review, 7–10.
4. Bailey, W., Kumar, A., & Ng, D. (2011). Behavioral biases of mutual fund investors. Journal of Financial Economics, 102(1), 1–27.
5. Barber, B. M., & Odean, T. (2013). The Behaviour of Individuals Investors. Handbook of the Economics of Finance, (1), 1533–1570.
6. Bhatia, A., Chandani, A., Divekar, R., Mehta, M. and Vijay, N. (2021a), "Digital innovation in wealth management landscape: the moderating role of robo advisors in behavioural biases and investment decisionmaking", International Journal of Innovation Science, Vol. aheadofprint, doi: 10.1108/IJIS1020200245.
7. Bhatia, R., Bhat, A.K. and Tikoria, J. (2021b), "Life insurance purchase behaviour: a systematic review and directions for future research", International Journal of Consumer Studies, Vol. 45 No. 6, pp. 11491175.
8. Blavatskyy, P. and Pogrebna, G. (2008), "Risk aversion when gains are likely and unlikely: evidence from a natural experiment with large stakes", Theory and Decision, Vol. 64 Nos 23, pp. 395420.
9. Chandra, A., & Kumar, R. (2012). Factors Influencing Indian Individual Investor Behaviour: Survey Evidence. SSRN Electronic Journal, 1–41.
10. Demirer, R., Kutan, A. M., & Chen, C. Da. (2010). Do investors herd in emerging stock markets?: Evidence from the Taiwanese market. Journal of Economic Behavior and Organization, 76(2), 283–295.
11. Garg, A., & Gulati, R. (2013). Do investors herd in Indian market. Decision, 40(3), 181–196.
12. Goyal, M., & Sharma, D. A. (2014). A Study of Investment Behavior of MiddleIncome Group towards different kinds of Investment Avenues. IOSR Journal of Business and Management, 16(8), 01–10.
13. Hassan, T.R., Khalid, W. and Habib, A. (2014), "Overconfidence and loss aversion in investment decisions: a study of the impact of gender and age in Pakistani perspective", Research Journal of Finance and Accounting, Vol. 5 No. 11, pp. 148157.
14. Jain, J., Walia, N., Singh, S. and Jain, E. (2021), "Mapping the field of behavioural biases: a literature review using bibliometric analysis", Management Review Quarterly, pp. 133
15. Kahneman, D., Knetsch, J. L., & Thaler, R. H. (1991). Anomalies: The Endowment Effect, Loss Aversion, and Status Quo Bias. Journal of Economic Perspectives, 5(1), 193–206.
16. Kappal, J.M. and Rastogi, S. (2020), "Investment behaviour of women entrepreneurs", Qualitative Research in Financial Markets, Vol. 12 No. 4, pp. 485504.
17. Lather, A.S., Jain, S. and Anand, S. (2020), "An empirical examination of the impact of locus of control on investor behavioral biases", International Journal of Management (IJM), Vol. 11 No. 1, pp. 97106.

18. Oechssler, J., Roider, A., & Schmitz, P. W. (2009). Cognitive abilities and behavioral biases. Journal of Economic Behavior and Organization, 72(1), 147–152.

19. Panjali, N. (2015). A study on the impact of investors ' life style on their investment behaviour, 1(1), 1– 16.

20. Prosad, J. M., Kapoor, S., & Sengupta, J. (2015). Behavioral biases of Indian investors: A survey of Delhi NCR region. Qualitative Research in Financial Markets, 7(3), 230 263

21. Ritter, J. R. (2003). Behavioral Finance Behavioral Finance. Pacific Basin Finance Journal, 11(4), 429 –437.

22. Tan, L., Chiang, T. C., Mason, J. R., & Nelling, E. (2008). Herding behavior in Chinese stock markets: An examination of A and B shares. Pacific Basin Finance Journal, 16(1–2), 61–77.

23. Ahmad, M. (2020), "Does under confidence matter in shortterm and longterm investment decisions? Evidence from an emerging market", Management Decision, Vol. 59 No. 3, pp. 692709.

24. Almansour, B.Y. and Arabyat, Y.A. (2017), "Investment decision making among Gulf investors: behavioural finance perspective", International Journal of Management Studies, Vol. 24 No. 1, pp. 4171.

25. Barber, B.M. and Odean, T. (2001), "Boys will be boys: gender, overconfidence, and common stock investment", The Quarterly Journal of Economics, Vol. 116 No. 1, pp. 261292.

26. Bell, D.E. (1982), "Regret in decision making under uncertainty", Operations Research, Vol. 30 No. 5, pp. 961981.

27. Bernoulli, D. (1738), "Specimen theoriae novae de mensura sortis", Commentarii Academiae Scientiarum Imperialis Petropolitanae, Vol. 5, pp. 175192.

28. Budiarto, A. (2017), "Pengaruh financial literacy, overconfidence, regret aversion bias, danrisk tolerance terhadap keputusan investasi (studi pada investor PT. Sucorinvest central gani galeri investasi BEI universitas negeri surabaya)", Jurnal Ilmu Manajemen (JIM), Vol. 5 No. 2, pp. 19.

29. Calzadilla, J.F., BordonadoBermejo, M.J. and GonzalezRodrigo, E. (2021), "A systematic review of ordinary people, behavioural financial biases", Economic ResearchEkonomska Istrazivanja, Vol. 34 No. 1, pp. 27672789.

30. Dangi, M. and Kohli, B. (2018), "Role of behavioral biases in investment decisions: a factor Analysis", Indian Journal of Finance, Vol. 12 No. 3, pp. 4357.

31. Davis, J., Mengersen, K., Bennett, S. and Mazerolle, L. (2014), "Viewing systematic reviews and metaanalysis in social research through different lenses", SpringerPlus, Vol. 3 No. 1, pp. 19.

32. Dennis, P.J. and Strickland, D. (2002), "Who blinks in volatile markets, individuals or institutions?", The Journal of Finance, Vol. 57 No. 5, pp. 19231949.

33. Fischer, K. and Lehner, O.M. (2021), "Behavioral finance research in 2020: Cui bono et quo vadis?", ACRN Journal of Finance and Risk Perspectives, Vol. 10, pp. 5476.

34. Grether, D.M. (1980), "Bayes rule as a descriptive model: the representativeness heuristic", The Quarterly Journal of Economics, Vol. 95 No. 3, pp. 537557.

35. Harris, M. and Raviv, A. (2005), "Allocation of decisionmaking authority", Review of Finance, Vol. 9 No. 3, pp. 353383.

36. Kahneman, D. and Tversky, A. (1979), "On the interpretation of intuitive probability: a reply to Jonathan Cohen", Cognition, Vol. 7 No. 4, pp. 409411.

37. Kahneman, D. and Tversky, A. (1982), "The psychology of preferences", Scientific American, Vol. 246 No. 1, pp. 160173.

38. Kahneman, D., Knetsch, J.L. and Thaler, R.H. (1991), "Anomalies: the endowment effect, loss aversion, and status quo bias", Journal of Economic Perspectives, Vol. 5 No. 1, pp. 193206.

39. Kallinterakis, V., Munir, N. and RadovicMarkovic, M. (2010), "Herd behaviour, illiquidity and extreme market states: evidence from Banja Luka", Journal of Emerging Market Finance, Vol. 9 No. 3, pp. 305324.

40. Kapoor, S. and Prosad, J.M. (2017), "Behavioural finance: a review", Procedia Computer Science, Vol. 122, pp. 5054.

41. Kengatharan, L. and Kengatharan, N. (2014), "The influence of behavioral factors in making investment decisions and performance: study on investors of Colombo Stock Exchange, Sri Lanka", Asian Journal of Finance and Accounting, Vol. 6 No. 1, pp. 123.

42. Khan, M.Z.U. (2017), "Impact of availability bias and loss aversion bias on investment decision making, moderating role of risk perception", Management and Administration (IMPACT: JMDGMA), Vol. 1 No. 1, pp. 1728.

43. Khawaja, M.J. and Alharbi, Z.N. (2021), "Factors influencing investor behavior: an empirical study of Saudi Stock Market", International Journal of Social Economics, Vol. 48 No. 4, pp. 587601.

44. Kishor, N. (2020), "Development and validation of behavioral biases scale: a SEM approach", Review of Behavioral Finance, Vol. 14 No. 2, pp. 237259, doi: 10.1108/RBF0520200087.

45. Kumar, S. and Goyal, N. (2015), "Behavioural biases in investment decision making–a systematic literature review", Qualitative Research in Financial Markets, Vol. 7 No. 1, pp. 88108.

46. Kumar, S. and Goyal, N. (2016), "Evidence on rationality and behavioural biases in investment decision making", Qualitative Research in Financial Markets, Vol. 8 No. 4, pp. 270287.

47. Lakshmi, P., Visalakshmi, S., Thamaraiselvan, N. and Senthilarasu, B. (2013), "Assessing the linkage of behavioural traits and investment decisions using SEM approach", International Journal of Economics and Management, Vol. 7 No. 2, pp. 221241.

48. Madaan, G. and Singh, S. (2019), "An analysis of behavioural biases in investment decisionmaking", International Journal of Financial Research, Vol. 10 No. 4, pp. 5567.

49. Mangala, D. and Sharma, M. (2014), "A brief mapping of theory and evidence of investors' behavioural biases", Indian Journal of Finance, Vol. 8 No. 8, pp. 4456.

50. Quaicoe, A. and ElekeAboagye, P.Q. (2021), "Behavioral factors affecting investment decisionmaking in bank stocks on the Ghana stock exchange", Qualitative Research in Financial Markets, Vol. 13 No. 4, pp. 425439.

51. Sahi, S.K. (2017), "Psychological biases of individual investors and financial satisfaction", Journal of Consumer Behaviour, Vol. 16 No. 6, pp. 511535.

52. Sharma, A. and Nandi, S. (2018), "A review of behavioral decision making in the newsvendor problem", Operations and Supply Chain Management: An International Journal, Vol. 11 No. 4, pp. 200213.

53. Sharma, D., Misra, V. and Pathak, J.P. (2021), "Emergence of behavioural finance: a study on behavioural biases during investment decisionmaking", International Journal of Economics and Business Research, Vol. 21 No. 2, pp. 223234.

54. Singh, H.P., Goyal, N. and Kumar, S. (2016), "Behavioural biases in investment decisions: an exploration of the role of gender", Indian Journal of Finance, Vol. 10 No. 6, pp. 5162.

55. Tversky, A. and Kahneman, D. (1981), "The framing of decisions and the psychology of choice", Science, Vol. 211 No. 4481, pp. 453458. IJIEOM 4,1/2 42

56. Waweru, N.M., Munyoki, E. and Uliana, E. (2008), "The effects of behavioural factors in investment decisionmaking: a survey of institutional investors operating at the Nairobi Stock Exchange", International Journal of Business and Emerging Markets, Vol. 1 No. 1, pp. 2441.

57. Zahera, S.A. and Bansal, R. (2018), "Do investors exhibit behavioral biases in investment decision making? A systematic review", Qualitative Research in Financial Markets, Vol. 10 No. 2, pp. 210251.

58. Zhou, L. and Yang, C. (2020), "Investor sentiment, investor crowdedtrade behavior, and limited arbitrage in the cross section of stock returns", Empirical Economics, Vol. 59 No. 1, pp. 437460.