



A Study on Behavioural Finance and its Impact on Investment Decisions Made by Investors in Bikaner

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Abstract	
<p>Received: 2nd Sept 2022 Revised: 13th Oct 2022 Accepted: 15th Nov 2022</p>	<p><i>Behavioral finance, an emerging field, examines how psychological factors influence decision-making in uncertain situations. Understanding behavioral finance is crucial for gaining insight into investors' mindsets and their approach to various investment opportunities. This study aims to investigate the influence of key behavioral finance concepts such as overconfidence, perception, representativeness, anchoring, cognitive dissonance, regret aversion, narrow framing, and mental accounting on individual investors' decision-making processes in the stock market. Using a structured questionnaire, we conducted primary research involving 181 investors in Bikaner to achieve our primary objective of assessing the impact of behavioral finance on investors and exploring its relevance in their investment decisions. Additionally, we aimed to identify factors influencing investors' decisions and to delve into the various theories and concepts of behavioral finance as secondary objectives of our study.</i></p>
<p>CC License CC-BY-NC-SA 4.0</p>	<p>Keywords: Behavioral finance, psychological factors, mental</p>

INTRODUCTION TO THE TOPIC

The field of finance primarily involves decision-making related to investment, working capital, dividend, and fund allocation. On the other hand, economics focuses on decision-making concerning what to produce, how to produce, and for whom to produce. Similarly, the emerging field of behavioral finance also revolves around the intricate process of decision-making. Despite the numerous theories developed by the fields of economics and finance, they often fail to elucidate why individuals occasionally make irrational financial decisions. In the realm of finance, various studies provide theories, explanations, and evidence regarding how markets function and how investors make their investment decisions. These theories elucidate the intricacies of investment dynamics and offer guidelines for making investment decisions. While these rules may appear straightforward, investors often struggle to apply them effectively. As a result of inefficiencies in applying these rules, investors tend to engage in excessive trading, make purchases or sales at inopportune times, allow emotions to override logical reasoning, and misinterpret probabilities. Initially, the finance field was hesitant to embrace the perspective of psychologists advocating the behavioral finance model. In fact, early proponents of behavioral finance were often viewed as rebels. However, as evidence showcasing the impact of psychology and emotions on decision-making became more compelling, behavioral finance began to gain wider

acceptance. Despite ongoing debates regarding the timing, mechanisms, and reasons for psychological influences on investment decisions, the awarding of the 2002 Nobel Prize in economics to psychologist Daniel Kahneman and experimental economist Vernon Smith was seen as a validation of the behavioral finance field.

TRADITIONAL FINANCE VS BEHAVIORAL FINANCE

The key difference between the traditional finance and behavioral finance are as follows:

TRADITIONAL FINANCE

- Presumes that individuals process information with reasonable accuracy.
- Implies that individuals assess all decisions based on the clear and objective factors of risk and return.
- Presumes that individuals are driven by rationality, logic, and unbiased judgment.
- Contends that markets operate efficiently, suggesting that each security's price reflects an impartial estimate of its true value.

BEHAVIORAL FINANCE

- It acknowledges that individuals utilize imperfect heuristics to process information.
- It acknowledges that emotions and herd instincts significantly influence decisions.
- It indicates that perceptions of risk and return are shaped by the framing of decision problems.
- It argues that discrepancies between market price and fundamental value are frequently due to behavioral biases, framing effects, emotions, and social influences.
- It concludes that investor behavior can drive prices to unsustainable levels in both upward and downward directions.

BEHAVIORAL FINANCE

Behavioral finance, a subset of behavioral economics, presents theories rooted in psychology to elucidate anomalies in the stock market, such as significant fluctuations in stock prices. Its aim is to discern and comprehend the reasons behind specific financial decisions made by individuals. In behavioral finance, it is posited that both the information environment and the attributes of market participants consistently impact individuals' investment choices and subsequent market results. Individuals often exhibit overconfidence, leading them to overrate the precision of their predictions. This overconfidence is fueled in part by a false sense of understanding. While the human mind naturally seeks to gather as much information as possible from the available data, it may fail to recognize that the information at hand is insufficient for forming accurate forecasts, especially in situations of uncertainty.

ANCHORING

Once individuals have formed an opinion, they frequently exhibit a reluctance to revise it, even in the face of new and pertinent information. For instance, suppose investors have developed the belief that Company A possesses aboveaverage long-term earnings potential. However, if Company A unexpectedly reports significantly lower earnings than anticipated, this entrenched belief may persist despite the contradictory information.

FAMILIARITY

Individuals tend to gravitate towards investments that feel familiar to them, as the human brain frequently relies on the familiarity shortcut when making investment decisions. This tendency is evident in the phenomenon where people invest more heavily in stocks associated with their employer, local businesses, and domestic companies.

CONFORMATION BIAS

Investors have a tendency to ignore information that contradicts their beliefs, instead favoring information that aligns with their existing views. This behavior leads them to selectively seek out evidence that supports their opinions while neglecting information that challenges them.

INNUMERACY

Individuals often struggle with numerical concepts, such as distinguishing between nominal and real changes, which economists refer to as "money illusion." Additionally, people find it challenging to accurately assess

probabilities, often lacking awareness of the actual odds. Furthermore, individuals tend to prioritize big numbers over smaller ones, assigning less significance to the latter.

FRAME DEPENDENCE PROSPECT THEORY

Proposed by Kahneman and Tversky, prospect theory, a fundamental concept in behavioral finance, offers an alternative perspective on how individuals perceive and assess decisions in uncertain situations. Unlike traditional theories where utility is solely based on the level of wealth, prospect theory suggests that utility is determined by changes in wealth relative to the current level. In this theory, the utility function exhibits concavity for gains.

MENTAL ACCOUNTING

Traditional finance asserts that wealth, especially money, should be considered fungible, and every financial decision should be made based on a rational assessment of its effects on overall wealth. However, in practice, individuals often lack the computational abilities and willpower to evaluate decisions in terms of their impact on overall wealth.

NARROW FRAMING

Ideally, investors should prioritize monitoring changes in their total wealth. Narrow framing, when considered across different investments, indicates that investors tend to assess each investment individually rather than considering the portfolio as a whole. Consequently, they tend to be more attentive to price fluctuations in individual stocks and less concerned about the overall behavior of the portfolio.

SHADOW OF THE PAST

Following a gain, individuals tend to become more risk-tolerant. For instance, after winning money in a gamble, amateur gamblers may not perceive the winnings as entirely their own, leading them to be tempted to risk it further. This phenomenon is commonly known as the house money effect. Conversely, after experiencing a loss, individuals are less inclined to take risks. This behavior is sometimes likened to the caution one would exercise after being bitten by a snake, hence referred to as the snake bite effect.

EMOTIONAL AND SOCIAL INFLUENCES EMOTIONAL EFFECT

Emotions play a significant role in determining risk tolerance, which in turn affects portfolio selection. Throughout the investment process, investors experience a range of emotions as they evaluate options, determine their risk appetite, monitor the outcomes of their decisions, consider adjustments to their strategy, and assess their progress towards their financial goals.

HEARD INSTINCTS / INFORMATION CASCADE

Human beings naturally have a desire to belong to a group, leading them to herd together. However, following the herd amplifies psychological biases, encouraging individuals to base decisions on the group's sentiment rather than conducting independent analysis. This inclination is particularly pronounced in decisions characterized by high levels of uncertainty.

Literature Review

- 1. (Nichlas Barberis, 2002)** In this research paper Behavioral finance argues that some financial phenomena can plausibly be understood using models in which some agents are not fully rational. The field has two building blocks: limits to arbitrage, which argues that it can be difficult for rational traders to undo the dislocations caused by less rational traders; and psychology, which catalogues the kinds of deviations from full rationality we might expect to see.
- 2. (BIRĂU)** This article presents a new approach in the analysis of capital markets, namely behavioral finance. Behavioral finance is the study of the influence of the psychological factors on financial markets evolution.
- 3. (Andrea Masini, 2012)** Investments in renewable energy (RE) technologies are regarded with increasing interest as an effective means to stimulate growth and accelerate the recovery from the recent financial crisis.
- 4. (Mangee, 2017)** This article provides econometric evidence on the importance of psychological considerations for aggregate stock price fluctuations. To this end, a novel measure of stock market sentiment, dubbed the Net Psychology Index (NPI), based on information contained in *Bloomberg News's* end-of-the-day stock market reports, is confronted with a battery of multivariate empirical analyses.

5. (Kevin Brady, 2018) Most large stock price shocks are not accompanied by publicly available information. Then, what other information do investors use to set prices? The authors find that investors rely on reference points and their private information signals.

RESEARCH OBJECTIVES PRIMARY OBJECTIVE

- To study the impact and relevance of behavioral financing in investment decision of investors

SECONDARY OBJECTIVES:

- To study various factors influencing the investors while investment decisions.
- To analyze the behavior and psychology of investors • To know the preference of people towards investing.

SCOPE OF STUDY

- Scope of study is limited to Bikaner city of India
- Scope includes the investors of all age groups. • The study was limited to some theories only.

RESEARCH DESIGN

- The type of research design that we are using here is descriptive design because is used to describe characteristics of a population or phenomenon being studied.

DATA COLLECTION SOURCES

- **PRIMARY DATA:** Here in this research the following methods of data collection are used:- schedules, questionnaire, interview, observation methods.
- **SECONDARY DATA:** Internet, Books, Newspaper, Articles, magazines and blogs are some of the sources of secondary data collection that we have used for our research.

SAMPLING PLAN o Population :- People of Bikaner o Sampling frame :- People who invest o Sampling method :- Convenience sampling o Sampling size :- 181 people

EXPECTED CONTRIBUTION

- The relevance of behavioral financing and its importance in making investment decision can be known.
- The research will enrich the knowledge about traditional finance and different aspects of behavioral finance.
- The research can be beneficial to other researchers.

DATA ANALYSIS Bi-VARIANT ANALYSIS

1. DO YOU THINK THAT YOU HAVE SUFFICIENT KNOWLEDGE ABOUT IT? * EDUCATION

Case Processing Summary Do you think that you have sufficient knowledge about it? * Education Crosstabulation

	Education						Total
	under Graduate	graduate	Post Gradaute	Professional	PhD	Others	
Do you think that Yes you have sufficient knowledge about it?	7	46	47	10	3	3	116
No	5	23	27	6	1	3	65
Total	12	69	74	16	4	6	181

Out of total respondents, 58% of under graduate, 66% of graduate, 63% of post graduate and 62% of professional think that they have the sufficient knowledge about investing.

The level of education and the overconfidence bias was compared here to check whether there is any relationship between education level and overconfidence. It shows that the graduate people are the people with the highest level of overconfidence bias and it can be said that people who are educated has more overconfidence bias to predict the market compared to people who are less educated.

2. WHEN IT COMES TO DECISIONS RELATED TO INVESTMENTS, YOU RELY MORE ON YOUR INTUITIONS AND GUT FEELINGS GENDER

when it comes to decisions related to investments, you rely more on your intuitions and gut feelings*
gender Crosstabulation Count

	gender		Total
	Female	male	
when it comes to decisions related to investments, you rely more on your intuitions and gut feelings/ Yes	46	58	104
No	29	48	77
Total	75	106	181

Out of total respondents, 62% of female and 54% male rely on their intuition and gut feeling while making investment decision

The comparison was made with gender and emotional bias. So it can be said that female rely more on their intuition and gut feeling while making investment decision. Female gender is more prone to emotional bias as compared to males.

3. SUPPOSE YOU HAVE BOUGHT THE SHARES OF ABC LTD, THEN WILL YOU GIVE MORE IMPORTANCE TO THE POSITIVE NEWS RELATED WITH ABC LTD. * AGE

Suppose you have bought the shares of ABC Ltd, then will you give more importance to the positive news related with ABC Ltd. * Age Crosstabulation Count

	Age						Total
	18-25	25-35	35-45	45-55	55-65	>65	
Suppose you have bought the shares of ABC Ltd, then will you give more importance to the positive news related with ABC Ltd. yes	21	30	56	40	7	8	162
no	1	5	4	7	0	2	19
Total	22	35	60	47	7	10	181

Out of total respondents, 95% of people of the age 18-25, 85% of people of the age 25-35, 93% of people of the age 35-45, 85% of people of the age 45-55, 100% of people of the age 55-65 and 80% of people of the age more than 65 give more importance to the positive news related to their investments.

Here relationship between confirmation bias and age was studied and it was concluded that there is no relationship between confirmation bias and age of the investors. Confirmation bias can occur to any investors irrelevance of age.

4. IF YOUR INVESTMENT IS SHOWING LOSS, WILL YOU HOLD IT FOR RECOVERING THE LOSS? * OCCUPATION ?

If your investment is showing loss, will you hold it for recovering the loss? * Occupation
Crosstabulation Count

	Occupation					Total
	Service	Business	Self Employed	Retired	Home Maker	
If your investment is showing loss, will you hold it for recovering the loss? yes	59	23	16	6	20	124
no	27	7	7	5	11	57
Total	86	30	23	11	31	181

Out of total respondents, 67% of service, 76% of business, 70% of self-employed, 54% of retired and 64% of home makers will hold their loss showing investment to recover the losses.

Here the relationship between the trying to break even effect and occupation is studied. It can be analysed that business and self-employed people are most affected by trying to break even effect and retired people are least affected by it. Business and self-employed people are the people who take higher risk than other occupations.

HYPOTHESIS TESTING

H0: There is no influence of behavioral finance on investment decisions H1: There is influence of behavioral finance on investment decisions

THEORY	LEVEL OF PERCENTAGE
1. Overconfidence	64%
2. Innumeracy bias	38%
3. Mental Accounting	57%
4. Narrow Framing	23%
5. Confidence Bias	90%
6. Prospect Theory	70%
7. Anchoring Theory	48%
8. Familiarity with investment	67%
9. Heard instinct/Information cascade	57%
10. The shadow of the past	61%
11. Trying to break even effect	69%
12. Emotional effect	57%

So from the above table it can be concluded that the theories of behavioral financing holds true.

H1:- is accepted

There is influence of behavioral financing n investment decisions on investors

MEAN AND SANDARD DEVIATION TABLE

THEORY	QUESTION	MEAN	STD. DEVIATION
Overconfiden ce	Do you think that you have sufficient knowledge about it?	1.3591	.48107
Innumeracy	From the following two options which one will you choose?	1.6298	.49553
Mental Accounting	Suppose you have invested Rs 1 lac in equity, Rs 1 lac in bond and if there is news in bond market then will it affect your buying and selling decision in equity?	1.4309	.49658
Narrow Framing	You tend to react strongly on short term changes in price of investments?	2.7017	1.04320
Conformatio n bias	Suppose you have bought the shares of ABC Ltd, then will you give more importance to the positive news related with ABC Ltd.	1.1050	.30737
Prospect Theory	You have given Rs. 1 lakh and is asked to choose between two options. Which will you choose?	1.1934	.39604
Prospect Theory	You have given Rs. 2 lakh and are asked to choose between two options. Which will you choose?	1.6243	.48564
Anchoring	Do you prefer to keep holding onto investments even if there past performance is not very encouraging?	1.5193	.50101
Familiarity Bias		1.3260	.47004
Heard instincts/Con formation bias	Your friend has invested in some investment avenue for short term and have earned 60% return on investment will you invest in same investment alternative by his/her advice?	1.5414	.49966

Heard instincts/Conformation bias	Do other investor's decisions of buying and selling make impact on your investment decisions?	1.5414	.49966
Heard instincts/Conformation bias	Do the expert opinion/ survey/analyst forecasted in news/media have any impact on your buying and selling decisions	1.2155	.41229
The shadow of the past	You have invested in stock of ABC ltd. for some period of time and you have earned good amount of return in past, will you agree to invest in same stock on the basis of your past experience?	3.0387	1.32231
Trying to reach break even point	If your investment is showing loss, will you hold it for recovering the loss?	1.3149	.46577
Emotional Bias	When it comes to decisions related to investments, you rely more on your intuitions and gut feelings/	1.4254	.49578

- The mean of the overconfidence question is 1.3 which means more people have chosen yes to the answer and the people face overconfidence bias.
- In rating the attributes from 1 lowest to 5 highest the mean of financial advisor return past experience, familiarity, goals and research about investment is more than three which means people consider them or give importance to them before investing.
- The mean of the question of innumeracy is 1.6 which says that people have highly chosen bigger number than the calculative more return due to which the theory of innumeracy holds true.
- In the question of conformation bias the mean is 1.4 which states that the frequencies are equally distributed and people are more neutral about it.
- In the question of familiarity the mean is 1.3 which means that people choose familiarity of investment over more returns.
- In the question of conformation bias the mean is 1.5 which means that frequency is equally distributed and people are more neutral about it.
- The mean of the question of past experience is 3 which means people are neutral about the importance to the past experience.
- In the question of trying to reach break-even point the mean is 1.3 which tells that people are highly affected by the bias of trying to reach breakeven point.
- In the question of emotional bias the mean is 1.4 which tells that people are highly affected by the emotional bias while making an investment decision.

CONCLUSIONS

- The objective of this study was to check the relevance of the behavioral finance theories and if the average individual investor participating in the investments market of the Bikaner city is always rational or not.
- The focus was is on the behavioral biases namely: overconfidence, anchoring, familiarity, conformation bias, innumeracy, prospect theory, mental accounting, narrow framing, shadow of past, emotional bias and information or heard instinct.
- Effects of the above biases on the decision making process of the investors of the Bikaner city was studied and analyzed. Data collection was done through questionnaire and 181 responses were obtained from individual investors.
- The study found out that investors are not rational and there is always the effects of above biases in more or less proportion on the decision making process of investors in the investments.

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