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#### RESEARCH ARTICLE

# LITERATURE REVIEW: THE EVOLUTION OF BEHAVIORAL FINANCE - HISTORICAL FOUNDATIONS AND CONTEMPORARY PERSPECTIVES

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### Abstract

**Purpose**- The paper aims to compile and synthesize past and present research on Behavioral Finance by reviewing the available literature. This will provide quick and easy access for future researchers and for doctoral thesis. The study emphasizes the classification of literature to offer a comprehensive view of Behavioral Finance, analyzing the findings and results of various studies for a thorough review.

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**Design/Methodology/Approach-** A comprehensive search was conducted across a variety of sources to review the existing literature on Behavioral Finance. From thousands of papers, 64 were selected for the present study, focusing on the impact of behavioral biases on individual investors' decisions and the influence of demographic factors on these biases. These selected papers, which include both research studies and literature reviews, form the sample for this study. To assess the status of research on the topic, these papers are classified based on various variables, such as behavioral biases, investors' investment decisions, and demographic factors Social factors and economic factors on investment.

**Findings** -This paper categorizes the existing literature on Behavioral Finance and finds that research in this field continues to be highly sought after in developed countries. Additionally, the study notes a significant increase in Behavioral Finance research in emerging economies in recent years. Several other important findings were also uncovered in the analysis.

**Originality/Value**- This paper offers a comprehensive collection and classification of literature on Behavioral Finance, providing valuable insights for academicians, professionals, and future researchers. It serves as a useful resource for understanding current research trends and identifying potential areas for future investigation in the field.

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# Introduction:-

Traditional finance theories, including the Capital Asset Pricing Model (CAPM), Efficient Market Hypothesis (EMH), Arbitrage Pricing Theory (APT), and the Black-Scholes Options Pricing Model, among others, have long been considered sufficient for explaining the behavior of financial markets. These models assume that markets are efficient, investors are rational, and prices always reflect all available information. However, in recent decades,

significant market anomalies and irregularities have challenged these assumptions. Events such as the dot-com bubble, the 2008 financial crisis, and persistent anomalies like excess volatility and market bubbles have demonstrated the limitations of these traditional theories. As a result, these theories have increasingly been found inadequate in fully capturing and explaining market behaviors. This inadequacy has led to the rise and acceptance of Behavioral Finance, which incorporates psychological factors and cognitive biases, providing a more comprehensive understanding of investor behavior and market dynamics. Behavioral Finance has proven essential in addressing the gaps left by traditional models, offering insights into how emotions, herd behavior, and irrational decision-making can influence financial markets.

The assumptions underlying conventional finance—namely, investor rationality and market efficiency—have been critically challenged by both psychologists and economists. Psychologists Kahneman and Tversky (1979) have introduced insights into behavioral biases and cognitive errors that deviate from rational decision-making. Economists such as Thaler (1985), Shefrin and Statman (1985), Shiller (2003), and Statman (1995, 2008, 2014) have further developed these ideas, highlighting how real-world investor behavior often contradicts the assumptions of rationality and efficiency, thus paving the way for the field of behavioral finance.

Moreover, in recent decades, numerous anomalies have been identified, casting doubt on the validity of traditional finance theories. Behavioral finance has emerged as a significant alternative explanation for these anomalies. While the validity and acceptance of behavioral finance are on the rise, there remains considerable debate between proponents of traditional finance and advocates of behavioral finance. This ongoing discussion appears in various forms and perspectives across the literature.

Behavioral finance and economics are grounded in three core themes:

- The impact of psychological biases on investor behavior,
- The limitations of market efficiency, and
- The influence of emotional and cognitive factors on financial decision-making.

Richard Thaler has extensively explored specific market anomalies through a behavioral lens in his numerous papers. However, market-wide anomalies are not typically explained solely by individual cognitive biases, as these biases alone often lack the magnitude to significantly impact market prices and returns.

Individual cognitive and emotional biases might counterbalance each other, meaning their effects may not always be significant enough to alter market prices and returns. However, when these biases interact with strong emotional forces, such as collective greed or fear, they can contribute to widespread phenomena like herding behavior and groupthink. Thus, cognitive biases alone may not account for market-wide anomalies; rather, it is the intersection of individual psychology with social - economic dynamics that plays a crucial role. Behavioral finance and economics are deeply rooted in both individual and social psychology. This field investigates how psychological factors influence financial decision-making and, consequently, how these decisions impact market behavior. As a subdiscipline of behavioral economics, behavioral finance uses psychology-based theories to elucidate stock market anomalies and explain why and how markets might deviate from efficiency. It focuses on understanding the psychological drivers behind investors' financial decisions and the resulting effects on market dynamics.

Behavioral finance is particularly compelling because it provides insights into why and how markets can exhibit inefficiencies. Unlike traditional finance theories that assume investors are fully rational and markets are always efficient, behavioral finance explores the psychological factors influencing investors' decision-making processes. It examines how cognitive biases, emotional responses, and social dynamics can lead to deviations from rational behavior and contribute to market inefficiencies. By studying the psychology of investors, behavioral finance sheds light on how emotions, cognitive distortions, and social influences can affect financial decisions, leading to anomalies such as asset bubbles, market overreactions, and systematic mispricing of securities. This approach helps to explain observed patterns in financial markets that traditional models struggle to address, such as excessive volatility and predictable deviations from fair value. In essence, behavioral finance seeks to understand and explain the complex interplay between human psychology and market behavior, offering a more nuanced view of financial markets than traditional theories.

Behavioral finance leverages scientific research on human cognitive and emotional biases to gain a deeper understanding of economic decisions and their impact on market dynamics, including prices, returns, and resource allocation. This field challenges the assumption of perfect rationality in traditional finance by highlighting how cognitive and emotional factors often lead to deviations from rational decision-making. Behavioral finance is primarily concerned with the rationality—or lack thereof—of economic agents. It investigates how biases such as overconfidence, anchoring, and loss aversion can influence investors' decisions, leading them to make choices based on emotions rather than objective analysis. For instance, investors may fall victim to their own mistakes or be swayed by the behavior of others, resulting in decisions driven by fear, greed, or herd mentality rather than fundamental values.

This discipline explores how these biases can cause individuals to overlook fundamental financial principles and instead base their investment decisions on sentiment and emotion. It recognizes that such deviations can significantly impact market behavior, leading to phenomena like asset bubbles, excessive volatility, and systematic mispricing of assets. Integrating behavioral finance into the decision-making process is crucial because it provides valuable insights into how psychological factors affect investor behavior and market outcomes. Understanding these dynamics helps investors and financial professionals recognize and mitigate the influence of biases, ultimately improving investment strategies and performance. By acknowledging and addressing the role of psychology in financial decisions, behavioral finance enhances the overall effectiveness of financial decision-making and market analysis.

# Key contributors in the field of Behavioral finance

The field of behavioral finance has evolved significantly over the decades, with numerous scholars contributing to its development. Early foundations were laid by (Schumpeter & Keynes, 1936), John Maynard Keynes, who explored investor behavior and market psychology in his seminal work, "The General Theory of Employment, Interest, and Money" (1936). (Simon, 1972), Herbert Simon furthered this with his concept of bounded rationality, emphasizing cognitive constraints on decision-making (1957). Building on these ideas, (D. Kahneman & Tversky, 1979), (Tversky & Kahneman, 1974), Daniel Kahneman and Amos Tversky revolutionized the field with their development of Prospect Theory, which addresses how cognitive biases and emotional factors influence risk and decision-making (1974, 1979). (Daniel Kahneman et al., 1991), (Thaler, 1985), Richard Thaler made significant contributions by integrating psychological insights into economic theory, notably through his work on mental accounting and the Endowment Effect (1985, 1990). (Shiller, 1990), Robert Shiller expanded this understanding by exploring market volatility and bubbles, highlighting the psychological underpinnings of financial markets (2000). (Akerlof, 1970), George Akerlof's "Market for Lemons" demonstrated how asymmetric information impacts market efficiency (1970), (Tobin, 1969), while James Tobin's work on portfolio theory also intersected with behavioral insights (1969). As behavioral finance matured, (Barberis & Thaler, 2002), Nicholas Barberis and Richard Thaler further developed theories on investor sentiment and market anomalies (2003). (Laibson, 1997), David Laibson introduced concepts such as hyperbolic discounting to explain saving and investment behaviors (1997), and (Jensen & Meckling, 1976), Michael Jensen's work on agency theory provided insights into managerial behavior and market efficiency (1986).

In more recent years, scholars like Daniel Ariely have investigated the implications of behavioral economics for consumer behavior (2008), while Andrew Lo proposed the Adaptive Markets Hypothesis, merging behavioral finance with traditional theories (2004). (Gigerenzer, 2008), Gerd Gigerenzer's research on heuristics and decision-making under uncertainty also advanced the field (2007). Contributions from. The insights of Nassim Nicholas Taleb into rare and unpredictable events, or "Black Swans," have highlighted the limits of traditional models (2007). (Coates IV, 2012), John Coates has studied the physiological effects of trading, linking stress to decision-making (2012), and (Mellers et al., 2015), Barbara Mellers has explored judgment under uncertainty (2014).

Recent contributors like David Hirshleifer (1998, 2001, 2012 and 2015), Hersh Shefrin (1988, 1994, 2000, 2001, 2002, 2008, John W. Payne (1982, 1988 and 1998), Andrei Shleifer (1990, 2000, and 2004), Meir statman (1999, 2000, 2009, 2017 and 2019) Finally, Daniel Kahneman's exploration of happiness and its impact on financial behavior (2006) and Michael Lewis's portrayal of market anomalies in "The Big Short" (2010) underscore the ongoing relevance of behavioral finance in understanding market inefficiencies and investor behavior. Meir Statman investigates how psychological biases and mental accounting affect financial decisions, offering insights through his

key works. Vernon Smith's Nobel-winning experimental economics research has revealed how market mechanisms operate and how participants adapt to them.

#### Nobel Prize in the field of behavioral finance

The Nobel Prize in Economic Sciences has been awarded three times for notable contributions to behavioral finance, each reflecting the field's evolving impact on economics. In 2002, Daniel Kahneman and Vernon Smith were honored for their groundbreaking work on the psychology of judgment and decision-making. Kahneman, who extensively collaborated with Amos Tversky, was recognized for developing Prospect Theory, which explains irrational human economic choices by demonstrating how people perceive gains and losses asymmetrically. Despite Tversky's death in 1996, Kahneman's award was a tribute to their joint efforts, as Kahneman himself noted, "I feel it is a joint prize." In 2013, the prize was awarded to Robert J. Shiller and Eugene Fama for their empirical analysis of asset prices. This decision highlighted a contrast between Shiller's view that markets are often irrational and beatable, and Fama's Efficient Market Hypothesis, which posits that markets are generally efficient and difficult to outperform consistently. Both scholars, however, agreed that while markets are not always perfectly rational, they are challenging to beat consistently by ordinary investors. Finally, Richard H. Thaler received the Nobel Prize in 2017 for his significant contributions to behavioral economics, bridging economic and psychological analyses of decision-making. Thaler's work, which introduced concepts such as mental accounting, the endowment effect, and nudge theory, has profoundly transformed the understanding of how psychological factors influence financial behavior and decision-making.

Behavioral finance is increasingly regarded as superior to standard finance due to its more nuanced understanding of financial markets and investor behavior. Standard finance relies on theories that rest on simplifying assumptions, which are frequently challenged by notable economists such as Shiller (2003, 2013), Statman (1985, 1999, 2008), and Thaler (1985, 1999, 2016). Statman (2014) critiques standard finance by emphasizing its dependence on foundational theories like the Arbitrage Principles of Miller and Modigliani (1950), the Portfolio Theory of Markowitz (1952), the Efficient Market Hypothesis (EMH) of Fama (1970), the Capital Asset Pricing Model (CAPM) of Sharpe, Lintner, and Black (1964, 1965, 1972), and the Option-Pricing Theory of Black, Scholes, and Merton (1973). These theories assume rational investor behavior, market efficiency, and risk-based asset pricing, but Statman argues that they oversimplify the complexities of financial reality.

Standard finance operates under the assumption of how investors "should" behave according to theoretical models, rather than reflecting actual investor behavior (Pompian, 2011). Statman (2017), in his book "Finance for Normal People", highlights that standard finance is based on four core assumptions: (1) investors are rational, (2) markets are efficient, (3) portfolios are designed using mean-variance optimization, and (4) asset returns are determined only by risk differences. These assumptions often fail to capture the true nature of investor behavior and market dynamics. In contrast, behavioral finance provides a more accurate depiction by incorporating psychological insights. It acknowledges that people are not always rational and that markets are not perfectly efficient. Behavioral finance also proposes that investors design their portfolios according to behavioral portfolio theory, which includes psychological factors, and that expected returns are influenced by more than just risk, as described by behavioral asset pricing theory. This approach recognizes that cognitive biases and emotional factors play significant roles in financial decision-making and market outcomes.

While much research in behavioral finance has been concentrated in developed countries such as the US, UK, and various European nations, the field is expanding into emerging economies. This paper aims to assess the current status of behavioral finance research in both developed and emerging markets. It systematically reviews past literature, including contributions from Nobel laureates, economists, and prominent scholars. The paper is structured as follows: the next section discusses the rationale for the study, emphasizing the significance of behavioral finance's evolution and relevance. Section III outlines the study's objectives, focusing on evaluating existing literature and exploring behavioral finance's impact in emerging markets. Section IV presents the data and methodology used for the study, detailing the research approach and techniques. Section V provides a comprehensive review of the literature on behavioral finance, highlighting key findings and developments. Finally, Section VI offers concluding remarks and suggests future research directions, emphasizing the implications for both academic research and practical applications in financial markets.

# Rationale of the Study.

Many studies have explored the field of behavioral finance, which remains rich with unexplored dimensions and contexts. Research has been conducted on behavioral biases and their impacts in both developed and developing countries. Notable studies include Sahi and Arora (2012), Kumar and Goyal (2015), Prosad, Kapoor, and Sengupta (2015), Kourtidis, Service, and Chatzoglou (2015), Feldman and Lepori (2016), and Zahera and Bansal (2018). Despite this, the majority of research is concentrated in developed economies, such as the U.S., where seminal works by Kahneman and Tversky (1979), Thaler (1985, 1999, 2016), Gervais and Odean (2001), Shiller (2003, 2013), DeBondt et al. (2010), and others have been conducted, and in the U.K., with studies by Bruce and Southampton (1994), Sewell (2010) and Duxbury (2015). In contrast, research in developing economies like India remains underdeveloped and largely survey-based. While surveys are valuable for understanding investor psychology, there is a critical need to investigate how behavioral biases affect market dynamics.

This study aims to enrich the body of knowledge in behavioral finance by analyzing a comprehensive review of 64 articles. These articles encompass both micro-level insights (through surveys) and macro-level analyses (through secondary data). The findings of this study will offer significant benefits for portfolio managers, investment advisors, and investors. By gaining a deeper understanding of investor decision-making processes and the influence of behavioral biases, portfolio managers and advisors will be better equipped to serve their clients. Similarly, investors will be able to make more informed decisions by recognizing the impact of behavioral biases on their investment choices and performance.

# **Objective of the Study**

The primary objective of this paper is to comprehensively assess the current state of behavioral finance by systematically organizing and reviewing the existing literature. This involves a thorough examination of both past and current published research to create a well-structured resource that offers quick and easy access for future researchers in the field. By doing so, the paper aims to enhance the understanding of behavioral finance research and provide a valuable reference for scholars and practitioners alike.

Additionally, the study aims to classify and synthesize the body of literature on behavioral finance. This includes developing a comprehensive bibliography that catalogues significant studies and their findings, thereby offering a clear and accessible overview of the field. This effort will help both researchers and practitioners gain insights into the results and implications of previous studies.

Moreover, the paper seeks to provide an evaluation of the present status of behavioral finance research. This involves not only reviewing existing work but also assessing the current trends and gaps in the literature. Finally, the study aims to suggest future research directions, proposing potential areas for further investigation to advance the understanding of behavioral finance and address existing challenges in the field.

# Data and Methodology:-

This paper is based on a review of 64 articles, including research papers, review papers, Thesis, Working papers, and projects focused on behavioral finance. These articles are published in Scopus-indexed journals across various developed and developing countries worldwide.

# Methodology:-

This paper employs a comprehensive review methodology to analyze behavioral finance research. The review focuses on articles published in all reputed indexed journals which are pioneer in publications. In addition to these refereed journals, the study considers books on behavioral finance, practitioner publications, working papers, conference papers, and doctoral or master's theses. Key texts such as those by Pompian (2006), Statman (2017), and Shleifer (2000) are included for their valuable insights and contributions to the field.

The methodology involves searching for literature using the keyword descriptor "behavioral finance biases" on Scopus.com. This search was extensive, covering titles, abstracts, keywords, and full texts to ensure a broad capture of relevant papers. Despite the initial large number of research papers retrieved, the focus was narrowed to those most pertinent to the study of behavioral finance. This selection process involved filtering out papers that were

irrelevant or not published in journals recognized by Emerald, Springer, SAGE, ABDC, Scopus, ESCI, SCI, SICE, and WoS rankings.

The final dataset consists of 64 research papers that were carefully chosen based on their relevance and quality. This selection represents a significant portion of the behavioral finance literature within the selected databases. Each paper was thoroughly reviewed, and the literature was systematically classified using a review matrix.

The classification criteria include:

- Year-wise Classification: Organizing studies based on their publication year to track the evolution of research over time.
- Country-wise Classification: Categorizing studies according to the countries where the research was conducted, providing insight into geographical trends.
- Type of Study: Differentiating between empirical studies, theoretical papers, and reviews to understand the nature of research conducted.
- Econometric/Methodology Tools: Identifying the econometric and methodological tools used for data analysis, highlighting the techniques and approaches prevalent in the field.
- Findings/Conclusions: Summarizing the main findings and conclusions of each study to synthesize insights and contributions to behavioral finance.

#### Conclusion:-

Numerous studies have been conducted on behavioral finance, yet the field remains rich with unexplored dimensions, especially in varying contexts. While behavioral biases and their impacts have been examined in both developed and developing countries, most research is concentrated in developed economies such as the U.S., U.K., and Europe. Developing economies, like India, are still under-researched, with the existing studies primarily being survey-based. Although surveys are crucial for understanding investors' psyche, it is equally important to examine the influence of behavioral biases on the markets as a whole. This study aims to contribute to the body of knowledge in behavioral finance by focusing on a macro perspective through the analysis of secondary data or literature review. The findings will be particularly beneficial for portfolio managers, investment advisors, and investors. By gaining insights into the decision-making processes and behavioral biases of investors, portfolio managers and investment advisors can better serve their clients.

Sl.No	Author(s), Year	Title of the Study	Journals	Methodology/tools adopted for data analysis	Findings and Conclusions
01	(Allport, 1937), USA	Personality: a psychological interpretation.	Holt, Rinehart & Winston.	Empirical Evidence Collection	The work explores the uniqueness of individual personality, covering historical, theoretical, and methodological aspects, with a focus on traits' consistency and the functional autonomy of motives.
02	(Schachtel, 1938), USA	The functional autonomy of motives	The American Journal of Psychology	Empirical Evidence Collection, Theoretical Comparison	The author's theory posits that adult motives are diverse, self-sustaining systems that evolve independently of previous ones, offering a more concrete and individualized understanding of motivation.
03	(Klein & Krech, 1951)	The problem of Personality and Its Theory	Theoretical models and personality theory	The methodology involves historical review, conceptual analysis, critical evaluation, and theoretical integration to refine and consolidate personality theory concepts.	The work underscores the current emphasis on refining and integrating personality theory by evaluating existing concepts and outlining a solid foundation for future psychological theories.
04	(Herbert A. Simon, 1955)	A behavioral model of rational choice	Quarterly Journal of Economics	It primarily deals with constructing theoretical models and hypotheses based on observed behaviors and rational choices within certain constraints.	The simplified model suggests that rational choice is about selecting actions that guarantee the highest payoff, though such actions may not always be available.
05	(Schachter & Singer 1962)	Cognitive, social, and physiological determinants of emotional states	Psychological Review	The methodology typically involves manipulating arousal and contextual cues, and using self-reports and physiological measurements to analyze emotional responses.	The study supports the Schachter-Singer theory by showing that emotional states result from both physiological arousal and cognitive interpretation. When arousal lacks an immediate explanation, people label their emotions based on contextual cues.
06	(Becker, 1963)	Interests , Intelligence , and Personality1	Psychological Reports	Exploratory factor analysis	The study identified six factors from a psychological test battery measuring interests, intelligence, and personality.
07	(S. Schachter, 1964)	The Interaction of Cognitive and Physiological Determinants of Emotional State	Advances in Experimental Social Psychology	The study used a cognitive-physiological formulation of emotion, manipulating physiological arousal.	Emotional states result from the interaction of cognition and physiological arousal. When arousal lacks an explanation, individuals label it based on available cognitions, which can be manipulated.
08	(Jorgenson, 1967)	The Theory of Investment Behavior	Determinants of Investment Behavior	The Theory of Investment Behavior uses Econometric models, empirical data analysis,	Investment behavior is guided by rational decision-making, influenced by economic

				behavioral analysis, and simulations	conditions and psychological factors. Behavioral biases affect choices, and decisions are shaped by uncertainty and risk management.
09	(Robert Eisner and M. I. Nadiri, 1968)	Investment Behavior and Neo-Classical Theory	The Review of Economics and Statistics	Econometric models	Investment behavior is driven by the aim to maximize returns, influenced by economic conditions and market trends. Psychological factors and behavioral biases also play a role, while decisions are shaped by the levels of uncertainty and risk management strategies.
10	(Jorgenson, 1971)	Econometric Studies of Investment Behavior: A Survey	Journal of Economic Literature	Econometric models to analyze investment behavior, incorporating statistical methods and empirical data	Investment decisions are influenced by economic conditions, interest rates, and firm-specific factors. Econometric models highlight the role of expectations and adjustments costs in investment behavior,
11	(Tversky & Kahneman, 1973)	Availability: A heuristic for judging frequency and probability	Cognitive Psychology	Controlled experiments to test hypotheses about the availability heuristic. Comparative analysis between subjective judgments and objective data	A seminal work in the field of cognitive psychology and behavioral economics. It introduces the concept of the availability heuristic, which is a mental shortcut that relies on immediate examples that come to a person's mind when evaluating a specific topic, concept, method, or decision.
12	(Tversky & Kahneman, 1974)	Judgment under Uncertainty: Heuristics and Biases Amos	Science	The data from these experiments were analyzed to identify patterns and deviations from normative statistical models (such as Bayesian inference).	Tversky and Kahneman's research demonstrates that human judgment under uncertainty is often flawed due to the reliance on cognitive heuristics, leading to predictable biases. This work has profound implications for understanding decision-making processes and has influenced numerous fields beyond psychology.
13	(Langer, 1975)	The illusion of control	Journal of Personality and Social Psychology	Langer conducted experiments where participants were put in situations resembling games of chance, such as lottery games and dice rolling, to observe their behavior and beliefs about control.	The "illusion of control" demonstrates that people often overestimate their ability to control events, even in situations determined by chance. Her research found that participants believed they had more control over random outcomes when they were actively involved (e.g., choosing lottery numbers or rolling dice), especially in familiar or competitive contexts.

					This illusion persisted despite the lack of actual influence over the results.
14	(Fischhoff, 1975)	Hindsight is not equal to foresight: The effect of outcome knowledge on judgment under uncertainty	Journal of Experimental Psychology: Human Perception and Performance	Manipulating Outcome Knowledge: Providing outcome information to see its impact on judgments.  Judgment Tasks: Participants estimated or perceived events after knowing the outcomes.  Comparative Judgments: Comparing participants' estimates of their pre-outcome knowledge with actual knowledge levels of others.	Baruch Fischhoff's study finds that knowing the outcome of an event leads people to believe the event was more predictable than it actually was and alters their interpretation of related information. Participants are often unaware of this bias, which leads them to overestimate their predictive abilities and misjudge others' foresight. This unawareness can distort learning from past events and affect accurate understanding of predictability.
15	(D. Kahneman & Tversky, 1979)	Prospect Theory: An Analysis Of Decision Under Risk By	Econometrica	Experimental Data, Descriptive Statistics and Regression Analysis	Prospect Theory reveals that people's decisions under risk are influenced by psychological factors like loss aversion and distorted probability assessments, leading to deviations from traditional rational models.
16	(Thaler 1985),	"Mental Accounting and Consumer Choice".	Marketing Science	The methodology involves a combination of cognitive psychology and microeconomics. Thaler starts by using the prospect theory value function to develop the concept of mental coding for gains and losses: Theoretical Concept	Thaler's 1985 paper explains that consumers use mental accounting to categorize and monitor financial activities, influencing spending and saving decisions beyond traditional economic models. The perceived value of a transaction, or transaction utility, can significantly affect choices regardless of the actual value of goods.
17	(Shefrin and Statman 1985)	"The Disposition to Sell Winners Too Early and Ride Losers Too Long: Theory and Evidence".	The Journal Of Finance	Behavioral Analysis: The study uses psychological theories to explain investor behavior, particularly focusing on biases like regret aversion and overconfidence. Empirical Evidence: Analysis of real-world trading data to identify patterns in investor behavior, specifically looking at how investors manage winning and losing stocks. Regression Analysis and Event Studies	Investors often sell winning stocks too early and hold losing stocks too long due to biases like regret aversion and overconfidence. These behaviors lead to suboptimal trading decisions, resulting in poorer investment performance and market inefficiencies.
18	(Trueman 1988)	"A theory of noise trading in security market."	The Journal Of Finance		Why would any investors rationally want to engage in noise trading?
19	(Thaler 1999)	"The end of behavioral	Financial analysts	"The End of Behavioral Finance," the	Thaler discusses various behavioral biases and

		finance."	journal	methodology primarily involves a critical review and synthesis of existing literature in the field of behavioral finance.	their implications for financial markets, emphasizing that traditional economic models often fail to account for real-world investor behavior.
20	(Barber and Odean 2001)	"Boys Will be Boys: Gender, Overconfidence, and Common Stock Investment."	The Quarterly Journal of Economics	Barber and Odean utilized account data from over 35,000 households at a large discount brokerage to analyze the trading behaviors of men and women from February 1991 through January 1997. They employed a comparative methodology by partitioning investors based on gender, which served as a natural proxy for overconfidence,.	Their analysis included evaluating the frequency and outcomes of trades, specifically looking at how often men and women traded and the corresponding impact on their portfolio performance. They found that men traded 45% more than women, and this excessive trading led to men earning annual risk-adjusted net returns that were 1.4% lower than those of women.
21	(Gervais and Odean 2001)	"Learning to be overconfident."	The Review of financial studies	The authors employ a multiperiod market model to describe the process by which traders learn about their ability and how biases in this learning process can lead to overconfidence, Multiperiod market model	The analysis explores patterns in trading volume, expected profits, price volatility, and expected prices resulting from this endogenous overconfidence. Overconfident traders typically trade more aggressively, contributing to increased market volatility and reduced expected profits for themselves, although their overconfidence does not necessarily lead to poorer overall performance or market exit.
22	(Hattie & Hattie, 1981)	A Four-Stage Factor Analytic Approach to Studying Behavioral Domains	Applied Psychological Measurement	Exploratory Factor Analysis (EFA), Confirmatory Factor Analysis (CFA) and Structural Equation Modeling (SEM)	The analysis reveals a hierarchical factor structure, clarifies the relationships between different behavioral domains, and ensures measurement validity. These insights are useful for designing effective interventions and assessments.
23	(Samuelson & Zeckhauser, 1988)	Status quo bias in decision making	Journal of Risk and Uncertainty	Behavioral Analysis: The study uses psychological theories to explain the status quo bias and its impact on decision-making. Experimental Studies: Conducts experiments to observe how individuals make choices and the tendency to stick with the current state.	Status quo bias shows that individuals prefer to keep things as they are rather than change, even when change might be advantageous. This bias, driven by psychological factors like loss aversion, leads to inertia and can result in suboptimal decision-making and resistance to beneficial changes.
24	(Jean-Paul Caverni, Jean- Marc Fabre, 1990)	Cognitive Biases: Their Contribution For Understanding Human	Advances in Psychology	Literature Review: Comprehensive review of existing research on cognitive biases to identify and categorize various biases.	Cognitive biases impact how people perceive, process, and recall information, causing systematic errors in thinking. The study

		Cognitive Processes		Experimental Studies: Conducts experiments to observe cognitive biases in action and their effects on decision-making and judgment. Cognitive Models: Develops and applies cognitive models to explain how biases influence human cognitive processes.	identifies biases like confirmation bias, availability heuristic, and anchoring effect, explaining their mechanisms. Understanding these biases reveals the limitations of human cognition and offers insights for enhancing decision-making, education, and psychological interventions.
25	(Nevin, 1992)	An Integrative Model For The Study Of Behavioral Momentum	Journal Of The Experimental Analysis Of Behavior	Quantitative Analysis of Reinforcement: Equations that describe the relationship between the rate of reinforcement and the persistence of behavior. Resistance to Change Models: Mathematical formulations that quantify how behavior resists change when subjected to disruptions, often using concepts analogous to physical momentum. Behavioral Dynamics: Models incorporating differential equations to represent the dynamic changes in behavior under different reinforcement conditions.	Quantitative Analysis of Reinforcement: Equations that describe the relationship between the rate of reinforcement and the persistence of behavior. Resistance to Change Models: Mathematical formulations that quantify how behavior resists change when subjected to disruptions, often using concepts analogous to physical momentum. Behavioral Dynamics: Models incorporating differential equations to represent the dynamic changes in behavior under different reinforcement conditions.
26	(Kaplanis, Ian Cooper, 1994)	Home Bias in equity portfolio, Inflation Hedging, and International Capital Market Equilibrium	The Review of Financial Studies Spring	Regression Analysis: To identify and quantify the factors contributing to home bias and to assess the relationship between inflation and different asset classes. Portfolio Optimization Models: To evaluate the effects of home bias on portfolio diversification and international capital market equilibrium. Time-Series Analysis: To analyze historical data on investment patterns, asset returns, and inflation rates over time. Econometric Modeling: To test hypotheses and model the impact of home bias on international capital flows and market behavior.	"Home Bias in Equity Portfolios, Inflation Hedging, and International Capital Market Equilibrium" reveals that investors prefer domestic equities over foreign ones due to familiarity and perceived lower risk, which distorts global market equilibrium. It also finds that certain assets, like real estate and commodities, offer better inflation protection than equities. Addressing home bias is essential for optimizing global investment strategies and improving economic stability.
29	(Lewicka, 1998)	Confirmation bias: Cognitive error or adaptive strategy of action control?	Personal control in action: Cognitive and motivational mechanisms	The study examines confirmation bias through literature review, experiments, and cognitive modeling. It uses statistical tools like descriptive statistics, regression analysis, ANOVA, chi-square tests, and Bayesian analysis. Findings suggest that confirmation	Cognitive Error: Confirmation bias can lead to systematic errors by reinforcing inaccurate beliefs and ignoring contradictory evidence. Adaptive Strategy: It may also function as an adaptive strategy by simplifying decision-making and maintaining cognitive consistency.

				bias can lead to systematic errors by reinforcing inaccurate beliefs, but it may also act as an adaptive strategy for simplifying decision-making. Its impact varies depending on the context.	Context-Dependent: The impact varies; in some contexts, it enhances decision efficiency, while in others, it causes significant errors.
30	(Odean, 1998)	Are Investors Reluctant to Realize Their Losses?	Journal of Finance	The study employs empirical analysis to scrutinize real-world trading data, behavioral experiments to uncover psychological factors influencing reluctance, and cognitive modeling to understand the mechanisms of loss aversion. Statistical tools such as descriptive statistics summarize trading behaviors, regression analysis explores the relationship between loss aversion and investment decisions, survival analysis examines how long investors hold onto losing investments, and event studies assess the impact of realizing losses on future performance.	Investors' reluctance to realize losses is driven by loss aversion, leading them to hold onto losing stocks longer and sell winning ones earlier, which can negatively affect portfolio performance.
31	(Daniel et al., 1998)	Investor psychology and security market under- and overreactions	Journal of Finance	The study uses behavioral analysis to understand investor behavior, empirical research to detect patterns of Underreaction and overreaction in market data, and modeling to simulate the effects of psychological biases on pricing. Statistical tools include regression analysis to assess the link between psychology and market reactions, event studies to evaluate price responses to news, time-series analysis to identify reaction patterns over time, and econometric models to test hypotheses about psychological impacts on market behavior.	Investors often underreact to new information, causing delayed price adjustments, or overreact, leading to excessive price movements. Psychological biases like overconfidence, herd behavior, and framing effects drive these phenomena. Recognizing these biases helps explain market inefficiencies and can guide more effective investment strategies.
31	(Coval & Moskowitz, 1999)	Home bias at home: Local equity preference in domestic portfolios	Journal of Finance	The study uses empirical analysis to identify patterns of local equity preference, behavioral analysis to explore psychological and informational factors, and economic modeling to understand the impact on portfolio performance. Statistical tools	Local Equity Preference: Investors exhibit a strong preference for local equities, often investing more heavily in stocks from their own region. Behavioral Drivers: Factors such as familiarity, perceived lower risk, and informational advantages contribute to this

				include regression analysis to examine relationships between local equity preference and investor demographics, descriptive statistics to summarize investment patterns, and portfolio optimization models to assess the effects on diversification and returns.	bias. Market Impact: This preference can lead to suboptimal diversification and affect overall portfolio performance, highlighting the need for broader investment strategies.
32	(H. S. and M. Statman, 2000)	Behavioral Portfolio Theory	Journal Of Financial And Quantitative Analysis	It involves empirical research to study investor behavior and deviations from traditional theories, and economic modeling to integrate psychological biases into portfolio theory. The study employs descriptive statistics to summarize investor data, regression analysis to explore relationships between biases and investment choices, simulation models to assess the impact of these biases, and optimization models to enhance portfolio construction based on behavioral insights.	"Behavioral Portfolio Theory" indicates that investors' decisions are shaped by biases like loss aversion, mental accounting, and framing effects, which lead to deviations from traditional portfolio theory. The theory posits that portfolios are constructed based on psychological goals rather than solely on risk and return. Recognizing these biases aids in creating investment strategies and financial products that better align with actual investor behavior.
33	(Hellman, 2000)	Investor Behaviour - An empirical study of how large Swedish institutional investors make equity investment decisions – Thesis	Economic Research Institute (EFI) - Stockholm School of Economics	Empirical analysis to study equity investment decisions among large Swedish institutional investors. Survey research and case studies provide insights into their decision-making processes. Statistical tools such as descriptive statistics summarize investment practices, regression analysis explores relationships between factors and investment decisions, and factor analysis identifies underlying influences on investment choices.	The study reveal that institutional investors consider factors like financial performance, market conditions, and strategic fit in their decisions. The study identifies specific behavioral patterns and decision-making strategies used by these investors, and highlights how their decision-making processes impact market dynamics and investment outcomes.
34	(Bikhchandani & Sharma, 2000)	Herd behavior in financial markets	IMF Staff Papers	The study uses theoretical analysis to model herding mechanisms, empirical research to observe patterns in market data, and behavioral analysis to explore psychological drivers behind herding. The study employs regression analysis to assess the link between market movements and herding behavior, event studies to evaluate market reactions to news, and time-series analysis to identify trends and periods of intense herding.	"Herd Behavior in Financial Markets" show that investors often follow others, causing market trends and price movements that may not reflect fundamentals. Herding behavior can amplify market fluctuations, leading to bubbles and crashes. Psychological factors such as fear of missing out and social conformity drive this behavior, and understanding these dynamics is crucial for developing strategies to mitigate its negative effects on markets.

35	(Barberis & Huang, 2001)	Mental Accounting, Loss Aversion, and Individual Stock Returns	Journal of Finance	Investigates how mental accounting and loss aversion affect stock returns and investor behavior. The study uses theoretical analysis to model these psychological factors, empirical research to analyze stock return data, and behavioral analysis to explore their impact on investment decisions. Statistical tools include regression analysis to examine relationships between these factors and stock returns, event studies to assess their impact on stock price movements, and time-series analysis to identify patterns over time.	The show that investors use mental accounting, categorizing investments into separate accounts, which influences their risk and return perceptions. Loss aversion leads to stronger reactions to losses than gains, affecting investment behavior and stock returns. These psychological factors contribute to anomalies in stock returns and market inefficiencies, providing insights into deviations from traditional financial theories and suggesting ways to enhance investment strategies.
36	(Johnsson & Platan, Henrik Lindblom, 2002)	Behavioral Finance - And the Change of Investor Behavior during and After the Speculative Bubble At the End of the 1990s	Master's Thesis in Finance Faculty of Business Administration FEK 591	The study uses historical analysis to review market data and investor behavior during and after the bubble, behavioral analysis to study changes in investor psychology, and empirical research to analyze trading volumes, stock prices, and sentiment. Statistical tools include regression analysis to explore relationships between behavior and market variables, event studies to assess the impact of specific events, and time-series analysis to identify behavioral patterns over time.	The study indicate that investor behavior during the bubble saw increased speculation and risk-taking, which shifted to caution and reduced trading after the bubble burst. Psychological factors like overconfidence, herd behavior, and reaction to market trends were crucial in both driving the bubble and its collapse. Understanding these changes is key to explaining market dynamics during speculative bubbles and developing strategies to manage future bubbles.
37	(Barberis & Thaler, 2002)	Finance	National Bureau Of Economic Research - Working Paper Series	the study employs literature review to identify key theories and findings, theoretical analysis to develop models incorporating psychological biases, and empirical research to validate these theories and assess their market impact. Statistical tools used include regression analysis to explore relationships between psychological factors and financial outcomes, event studies to evaluate market reactions, and descriptive statistics to summarize investor behavior and market anomalies.	Psychological biases like overconfidence, loss aversion, and mental accounting affect investors' decisions and market behavior. These biases lead to market anomalies such as asset bubbles, volatility, and inefficiencies. Understanding these biases offers insights into market dynamics and improves the design of financial models and investment strategies.
38	(Hirshleifer & Hong Teoh, 2003)	Herd Behaviour and Cascading in Capital		The study uses literature review to synthesize existing research, theoretical	The study highlight that herd behavior causes investors to follow the crowd, leading to

		Markets: a Review and Synthesis		analysis to develop models of herding and cascading effects, and empirical analysis to validate these models with data and case studies. Statistical tools include regression analysis to examine relationships between market variables and herding behavior, event studies to observe market reactions, and descriptive statistics to summarize data on market trends and investor behavior.	market trends and price movements that may lack fundamental support. Cascading effects occur when small changes or trends trigger large, self-reinforcing market movements. Understanding these behaviors is crucial for explaining market inefficiencies and developing strategies to manage their impact.
39	(Wagemans, 2004)	Cognitive Psychology	Encyclopedia of Social Measurement, Three-Volume Set	Literature review, experimental studies, theoretical analysis, and empirical research to understand cognitive functions like perception, memory, and decision-making. Key statistical tools include descriptive statistics, regression analysis, ANOVA, and factor analysis to summarize data, examine relationships, compare conditions, and identify underlying factors.	Johan Wagemans identify key cognitive processes like perception, memory, and attention, and their impact on behavior. The study develops and validates models explaining how these processes interact and influence decision-making. Understanding these cognitive processes has practical implications, including designing better educational tools, improving user interfaces, and developing interventions for cognitive impairments.
40	(Barberis et al., 1997)	A model of investor sentiment	Journal of Financial Economics	Theoretical analysis to develop a model explaining how investor sentiment influences stock prices. Empirical research analyzes market data to test the model's predictions, Statistical tools used include regression analysis to assess the relationship between sentiment and stock returns, event studies to evaluate the impact of sentiment changes on market reactions, and descriptive statistics to summarize data on investor behavior and market trends.	A Model of Investor Sentiment finds that investor sentiment significantly impacts stock prices, leading to deviations from fundamental values due to psychological biases. This sentiment-driven trading can cause excessive market volatility and mispricing, as stock prices may not always reflect underlying economic fundamentals. Understanding investor sentiment improves financial models and investment strategies, enhancing the ability to predict market behavior and explain market anomalies.
41	(Pompian, 2006)	Behavioral finance and wealth management: How to build investment strategies that account for investor biases	John Wiley & Sons, Inc.	Michael M. Pompian employs behavioral analysis to examine investor biases such as overconfidence, loss aversion, and mental accounting. It uses case studies to illustrate how these biases affect investment decisions and portfolio performance and develops strategic frameworks for incorporating	Behavioral Finance and Wealth Management identifies key investor biases that can lead to suboptimal investment outcomes. The book provides strategies for wealth management that account for these biases, aiming to enhance investment decisions and portfolio performance. It offers practical advice for

				behavioral insights into investment planning. Statistical tools include descriptive statistics to summarize data on investor behavior, regression analysis to assess the impact of biases on portfolio performance, and scenario analysis to evaluate how different biases influence investment strategies under various market conditions.	financial advisors to help clients recognize and overcome these biases, leading to more informed and effective investment choices.
42	(M. Statman et al., 2006)	Investor Overconfidence and Trading Volume	The Review of Financial Studies	The study employs behavioral analysis to study how overconfidence impacts trading volume and decision-making. The research combines empirical data analysis to observe the effects of overconfidence on trading activity with theoretical modeling to explain these mechanisms. Statistical tools used include regression analysis to evaluate the relationship between overconfidence and trading volume, descriptive statistics to summarize trading behaviors, and time-series analysis to identify patterns in trading volume over time.	Investor Overconfidence and Trading Volume reveals that overconfident investors are more likely to engage in frequent trading, which leads to increased trading volumes. This heightened trading activity can contribute to market inefficiencies and amplify volatility, as trading decisions may be based on overestimated beliefs in one's own knowledge or predictions. The study highlights that understanding this link between overconfidence and trading behavior is crucial for developing strategies to manage and reduce the negative effects of excessive trading on market stability and efficiency.
43	(Martin Sewell, 2007)	Behavioural Finance	European Financial Management	Behavioral Finance by Martin Sewell involves a comprehensive review of existing research to outline key theories and findings in the field. It develops theoretical models incorporating psychological biases into financial decision-making and employs empirical research to analyze market data and investor behavior, validating these theories. Statistical tools used include descriptive statistics to summarize data on investor behavior and market anomalies, regression analysis to explore relationships between psychological factors and financial outcomes, and event studies to assess how market reactions align with behavioral finance theories.	Behavioral Finance by Martin Sewell explores how psychological biases such as overconfidence, loss aversion, and mental accounting affect investor behavior and market dynamics. It highlights that these biases can lead to significant market anomalies, including asset bubbles, excessive volatility, and pricing inefficiencies. By incorporating these psychological factors into financial models, the study offers explanations for deviations from traditional financial theories. This understanding is crucial for designing better investment strategies and developing more accurate financial models that account for real-world investor behavior and market phenomena.

44	(Luis et al., 2008)	Behavioral Finance: A Study Based On The Theory Of The Prospectus And Investor Profile Of Students Of Courses Stricto Sensu The Big Florianópolis	Estrategia & Negocios	The study utilizes survey research to collect data on students' investment behaviors and decision-making processes. The study applies Prospect Theory to analyze how students' perceptions of risk and loss influence their investment choices. Statistical methods, including descriptive statistics to summarize survey data, regression analysis to explore relationships between Prospect Theory variables and investment decisions, and factor analysis to identify underlying behavioral factors, are employed to interpret the data and identify patterns in student investment behavior.	The study reveals that students' investment decisions are strongly influenced by biases described in Prospect Theory, such as loss aversion and risk perception. The research utilized surveys to collect data on students' behaviors, applied behavioral analysis to interpret how these biases affect their financial choices, and employed statistical methods like regression and factor analysis to identify patterns. The findings indicate that students exhibit common behavioral biases, such as loss aversion and overconfidence, which deviate from traditional financial theories. These insights highlight the need for tailored educational programs and financial literacy initiatives to address and mitigate these biases, ultimately helping students make more informed investment decisions.
45	(Hertel & Mathews, 2011)	Cognitive Bias Modification: Past Perspectives, Current Findings, and Future Applications	Perspectives on Psychological Science	It begins with a literature review to consolidate theories and track the evolution of CBM techniques. Experimental studies provide insights into the effectiveness of different CBM interventions by observing controlled experiments. Theoretical analysis develops models to understand how CBM impacts cognitive processes and behaviors, while empirical research validates these techniques using real-world data. Statistical tools include descriptive statistics for summarizing data on CBM effectiveness, regression analysis to explore relationships between interventions and cognitive changes, ANOVA to compare the effectiveness of different methods, and factor analysis to identify underlying factors influencing the success of CBM techniques.	Cognitive bias modification (CBM) has evolved significantly, with initial techniques showing promise in altering cognitive biases. Current findings indicate that CBM effectively addresses biases related to anxiety, depression, and risk perception, leading to improved cognitive processes and behaviors. Future research aims to enhance CBM methods and expand their application across various fields such as mental health, education, and decision-making, with a focus on optimizing interventions and addressing a broader range of cognitive biases.
46	(Chira et al., 2011)	Behavioral Bias Within The Decision Making	Journal of Business & Economics	They conduct experimental studies to observe how biases affect decision-making in	The findings reveal that cognitive biases significantly impact decision-making

		Process	Research (JBER)	controlled settings. Theoretical analysis is used to develop models explaining how various biases influence decision processes. Empirical research further validates these models by analyzing real-world data. The statistical tools used in their research include descriptive statistics to summarize data on decision-making biases, regression analysis to assess relationships between biases and decision outcomes, and ANOVA to compare the effects of different biases across experimental conditions. Factor analysis is also employed to identify underlying factors that contribute to biased decision-making	processes. Key biases such as overconfidence, anchoring, and loss aversion often lead to suboptimal decisions. The study highlights that understanding these biases is crucial for improving decision-making strategies. By integrating these insights, it is possible to design interventions that help individuals make more rational and effective decisions, ultimately enhancing decision-making across various domains.
47	Alghalith, Floros, and Dukharan (2012)	"Testing dominant theories and assumptions in Behavioral Finance".	The Journal of risk finance	An alternative model to test prospect theory is introduced	The study concluded that these dominant theories and assumptions in behavioral finance are largely valid, emphasizing the need to incorporate psychological factors into financial decision-making. This suggests that traditional financial theories should be complemented with insights from behavioral finance to better understand and predict investor behavior.
48	(Kalra Sahi & Pratap Arora, 2012)	Individual investor biases: a segmentation analysis	Qualitative Research in Financial Markets	Exploratory research and cluster analysis of was conducted using in-depth interviews to investigate how biases manifest among individual investors. An initial inventory of 97 bias-related items was evaluated for content and face validity. This inventory underwent a pilot test and multiple rounds of modifications to refine and ensure its accuracy.	A cluster analysis of data collected from 377 individual investors in India revealed four main segments based on investor biases: the Novice Learner, the Competent Confirmer, the Cautious Anticipator, and the Efficient Planner. This typology demonstrates predictive validity concerning financial satisfaction and perceived knowledge of financial markets.
49	Sahi and Arora (2012), India	"Individual investor biases: A segmentation analysis"	Qualitative research in financial markets	The study employed a detailed survey questionnaire to gather data on individual investors' behaviors and biases. Factor analysis was used to identify underlying variables that explain the correlations among these biases. Cluster analysis was then applied to segment the investors into distinct	The study identified several common biases among individual investors, including overconfidence, anchoring, herding, and loss aversion. Through cluster analysis, investors were segmented into distinct groups, such as conservative investors (high risk aversion, influenced by loss aversion and anchoring),

				groups based on their bias profiles. Statistical software, such as SPSS, was utilized to conduct both factor and cluster analyses.	aggressive investors (exhibit overconfidence, less affected by loss aversion), and herd followers (tend to follow market trends and exhibit herding behavior). The biases significantly influenced investment decisions, leading to varying strategies and outcomes among the segments.
50	(Akhter & Ahmed, 2013)	Behavioral Aspects of Individual Investors for Investment in Bangladesh Stock Market	International Journal of Ethics in Social Sciences	They use survey research to collect data directly from individual investors, examining their decision-making processes and investment behaviors. Empirical research is conducted to analyze how behavioral biases affect investment choices in this market. The statistical tools applied in their research encompass descriptive statistics to summarize the survey data on investor behavior, regression analysis to examine relationships between various psychological factors and investment decisions, and factor analysis to identify key behavioral factors influencing investor choices.	The findings indicate that individual investors in the Bangladesh stock market are significantly influenced by behavioral biases such as overconfidence, herding behavior, and loss aversion. These biases lead to suboptimal investment decisions and market inefficiencies. Understanding these behavioral patterns provides valuable insights into how individual investors operate in emerging markets and suggests that tailored financial education and advisory services could help mitigate the negative effects of these biases.
51	(Bashir, 2013)	Impact of Behavioral Biases on Investors Decision Making: Male Vs Female	IOSR Journal of Business and Management	Two statistical techniques were employed to analyze the collected data. Correlation analysis was used to examine the relationship between overconfidence bias and other biases, including illusion of control, familiarity, loss aversion, and confirmation biases. Chi-square tests were applied to determine whether there were significant differences in responses between male and female investors regarding overconfidence bias.	The study reported a weak negative correlation between overconfidence bias and the other behavioral biases discussed. Additionally, it concluded that there is no significant difference between male and female investors in their responses related to overconfidence bias.
52	(M. Statman, 2014)	Behavioral finance: Finance with normal people	Borsa Istanbul Review	The study employs a theoretical framework that integrates behavioral finance with traditional finance theories. It uses literature reviews and real-world case studies to illustrate the application of behavioral finance concepts. Comparative analysis is	The study finds that behavioral finance effectively replaces traditional finance models with new frameworks that account for psychological factors, such as behavioral portfolio theory and behavioral asset pricing models. It also clarifies the distinction between

				conducted to highlight the differences and advancements between traditional models, such as mean-variance portfolio theory and CAPM, and newer behavioral finance models.	rational and hard-to-beat markets, offering a clearer understanding of market efficiency. Additionally, it explains why many investors tend to overestimate their ability to outperform the market, attributing this to psychological biases
53	(Kumar and Goyal 2015)	"Behavioral Biases in Investment decision making-A Systematic Literature Review."	Qualitative Research in Financial Markets	a systematic literature review to explore behavioral biases in investment decision- making. The study involved a comprehensive examination of existing academic and industry research on the topic. Data was extracted from various sources, and thematic analysis was used to identify and summarize common biases and their impacts on investment behavior.	The review identified several key behavioral biases affecting investment decisions, including overconfidence, loss aversion, anchoring, and herding behavior. It found that these biases lead to deviations from rational decision-making and significantly influence investor behavior.
54	(Prosad, Kapoor and Sengupta 2015)	"Behavioral biases of Indian investors: A survey of Delhi- NCR region."	Qualitative Research in Financial Market	Chi-square test and t-test	The study observed that behavioral biases are influenced by both investors' demographics and their trading sophistication. The most significant factors among these variables are age, profession, and trading frequency. Additionally, it was noted that respondents with the most extensive trading experience (over seven years) and those with the highest trading frequency (intraday traders) are more susceptible to all types of biases.
55	(Matoussi & Mostafa, n.d.2016)	An investigation of Investors Bias on Saudi stock exchange	Economic Research Forum	We employed a survey approach to collect primary data from a sample of Saudi investors. A questionnaire was distributed, featuring scenarios related to behavioral biases that were either theorized or derived from real-life situations. The collected data were analyzed using descriptive statistics, as well as correlation and factor analyses.	The results suggest that Saudi investors are characterized by overconfidence, low opportunism, sensitivity to rumors and mimetism biases. The evidences in this research suggest that most of the psychological biases could possibly hinder investors from making rational decisions
56	Baker et al. (2018), India	"How financial literacy and demographic variables relate to behavioral biases"	Managerial Finance	The study employed one-way ANOVA, factor analysis, and multiple regression analysis for data examination.	The results indicate that financial literacy is negatively correlated with the disposition effect and herding bias, while positively related to mental accounting bias. However, no significant relationship was found between

					financial literacy and overconfidence or emotional biases. The analysis revealed that age, occupation, and investment experience are the most significant demographic factors associated with behavioral biases among individual investors. Additionally, the study found that males exhibit greater overconfidence regarding their stock market knowledge compared to females.
57	Mushinada and Veluri(2019), India	"Elucidating investors rationality and behavioural biases in Indian stock market."	Review of Behavioral Finance	Structural Equation Model	The study found a statistically significant positive covariance between self-attribution and overconfidence, indicating that increases in self-attribution are associated with increases in overconfidence, and decreases in self-attribution correspond to decreases in overconfidence. Additionally, it was observed that personal and demographic factors, such as gender, age, occupation, annual income, and trading experience, have an impact on behavioral biases.
58	(Daniel Kahneman et al., 1991)	Anomalies: The endowment effect, loss aversion, and status quo bias	Journal of Economic Perspectives	The methodology includes a literature review to provide an overview of the endowment effect, loss aversion, and status quo bias, and experimental studies to empirically validate these phenomena. The researchers conduct controlled experiments to observe how these biases manifest in decision-making and impact economic behavior. Statistical tools used in the research comprise descriptive statistics to summarize experimental data on the biases, regression analysis to examine the influence of these biases on economic decisions	the study reveal that the endowment effect leads individuals to value items more highly simply because they own them, while loss aversion causes people to prefer avoiding losses over acquiring equivalent gains, impacting their decision-making. Status quo bias results in a preference for the current state of affairs and resistance to change. These biases lead to market anomalies and inefficiencies by causing deviations from rational economic behavior. Understanding these anomalies is essential for refining economic models and improving decision-making strategies.
59	(Khilar & Singh, 2020)	Role Of Emotional Bias On Investment Decision From Behavioural Finance	International Journal Of Scientific & Technology Research	The methodology includes a thorough literature review to grasp the role of emotional biases such as overconfidence, loss aversion, home bias, and the endowment	The study reveals that emotional biases such as overconfidence, loss aversion, home bias, and the endowment effect significantly impact investment decisions, often leading to

		Perspective		effect. Theoretical analysis is used to discuss how these biases influence decision-making processes. Empirical evidence is drawn from various studies to illustrate their effects on investor behavior. The statistical tools applied include descriptive statistics to summarize the prevalence and impact of these biases, regression analysis to examine the relationships between emotional biases and investment outcomes, and factor analysis to identify underlying factors contributing to these biases	suboptimal outcomes. Overconfidence can cause excessive trading, while loss aversion may result in holding onto losing investments too long. Home bias limits diversification, and the endowment effect distorts asset valuation. Understanding these biases can help investors and advisors make better decisions by incorporating behavioral insights into investment strategies, ultimately improving financial outcomes.
60	(Aren & Hamamcı, 2021)	Biases in managerial decision making: Regret aversion, endowment, confirmation, self-control, recency	International Journal of Multidisciplinary Research and Development	The methodology includes a literature review to outline existing theories and findings on these biases, and empirical research through surveys and case studies to observe their effects in real-world managerial contexts. Statistical tools employed in the study include descriptive statistics to summarize data on the prevalence and impact of these biases, regression analysis to explore relationships between biases and decision-making outcomes, and factor analysis to identify underlying factors influencing managerial decisions.	The findings reveal that regret aversion leads managers to avoid decisions that could result in future regret, while the endowment effect causes overvaluation of owned assets. Confirmation bias leads to selective information processing that reinforces preexisting beliefs, and self-control issues result in poor decision-making due to procrastination or inability to resist short-term temptations. Recency bias affects managers' decisions based on recent experiences rather than long-term trends. Understanding these biases is crucial for improving decision-making processes, and developing strategies to counteract their negative effects can enhance managerial effectiveness and organizational outcomes.
61	(S & Harsh, 2021)	The Impact of Behavioral Finance on the Decision-making Process and Investments	ISBR - Management Journal	The study uses a combination of survey research and statistical analysis to assess the impact of behavioral finance on investment decision-making. It collects data from investors through structured questionnaires designed to measure the influence of various behavioral biases on their investment choices. The data is then analyzed using statistical techniques, including correlation	The study finds that several behavioral biases, such as overconfidence, loss aversion, and anchoring, significantly affect investment decision-making. These biases lead investors to make irrational choices and deviate from optimal decision-making processes. The research concludes that recognizing and addressing these biases is essential for improving investment decisions and achieving

				and regression analyses, to explore the relationships between these biases and decision-making outcomes.	better financial outcomes. It emphasizes the importance of incorporating behavioral finance principles into investment strategies to enhance market efficiency and investor performance.
62	(Bihari et al., 2022)	Exploring behavioural bias affecting investment decision-making: a network cluster based conceptual analysis for future research	International Journal of Industrial Engineering and Operations Management	The study utilizes a network cluster-based conceptual analysis to investigate behavioral biases affecting investment decision-making. This approach involves applying network clustering techniques to map and analyze the relationships among various behavioral biases and their impact on investment decisions.	The study reveals complex interrelationships between different behavioral biases, demonstrating how they collectively influence investment decisions. While specific biases were not detailed, the findings highlight the significant impact of these biases on decision-making processes. The study concludes that the network cluster-based approach provides valuable insights into the interaction of behavioral biases and emphasizes the need for further research to explore these biases in greater detail.
63	(Abideen, 2023)	Do Behavioral Biases Affect Investors' Investment Decision Making? Evidence from the Pakistani Equity Market	Risks	The study utilized surveys to gather data from investors in the Pakistani equity market to evaluate the impact of behavioral biases on investment decisions. Statistical techniques, including correlation analysis, were used to examine relationships between various biases and investment behavior. Regression analysis was also employed	The study found that behavioral biases, such as overconfidence, loss aversion, and herding behavior, significantly impact investment decisions among Pakistani investors. These biases lead to deviations from rational decision-making and can affect investment performance.
64	(Reddy et al., 2024)	An Empirical Review Of Behavioral Biases In Investment Decisions	Educational Administration: Theory and Practice	The study utilized a survey approach to gather primary data from Saudi investors. A questionnaire was distributed, featuring scenarios related to behavioral biases that were either derived from theoretical concepts or real-life experiences. The data collected were then analyzed using descriptive statistics to summarize the information, and correlation and factor analyses to explore relationships between different biases and investment behaviors.	The study revealed that behavioral biases, such as Herding, Home Bias, Overconfidence, Anchoring, Gambler's Fallacy, Loss Aversion, Regret, and Mental Accounting, significantly influence investment decisions. These biases lead investors to make irrational choices, deviating from rational analysis and contributing to market volatility. The research concludes that understanding and addressing these biases is crucial for improving investment strategies and market stability.

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