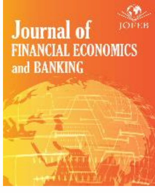

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The Influence of Heuristics and Biases on Investors' Decisions: A Brief Literature Review

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ABSTRACT

Behavioral finance can assist explain a variety of phenomena that traditional finance can't, such as overpricing and herd behavior. It also enables investors to have a better understanding of their own behavior by accounting for the elements that influence their decisions. In this field, the literature is still evolving and being examined from many perspectives.
Behavioral finance examines investor behaviors and cognitive characteristics to construct an investor profile. Their ability to make well-informed decisions based on their comprehension and reaction is also taken into account. Successful investors make suggestions about how to use their abilities in the most competent way to make judgments, according to findings from empirical studies on behavioral finance and investor biases. Furthermore, the findings demonstrate what predictions and biases a market player has while making a decision, as well as their role in the financial structure. This research will compile papers evaluating the effects of bias and trends on investor decisions in order to conduct a literature review. This paper investigates how human-oriented trends in behavioral finance have grown over time, with the goal of presenting a coherent framework based on the literature.

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1. Introduction

Behavioral finance assumes that market participants' attributes and knowledge influence individual investment decisions in a systematic way. Making a decision is a cognitive process that involves selecting an action plan from a set of options. Many stock investors lack sufficient understanding of the fundamental economic ideas required to make investment decisions. As a result, various elements that may influence investment decisions must be investigated. On the other hand, understanding how cognitive and emotional biases affect individual speculators' decisions and performance, as well as recognizing the complex decision-making process involved in selecting investments, can help increase the ability to make better decisions and reduce decision-making errors. In the 1970s, certain empirical research were published for the first time. These studies were more focused on individual investors than on investor profiles as a whole.

Nair and Antony (2015) consider behavioral finance as a tool to analyze irrational investor behavior and the reasons for the market's abrupt rise and collapse, rather than as a replacement for classical finance theories. Zahera and Bansal (2017), on the other hand, claimed that investors' behavior varies in certain conditions and that finance and psychology should be merged. As a result, it can explain why investor behavior changes under different market conditions.

When people convert their savings into investments, they usually aim to make sensible decisions by weighing risk and return considerations in a way that optimizes their gain. Anomalies in the markets, as well as the overvaluation of particular financial assets, indicate that they are influenced by psychological tendencies in people's decision-making processes. Many psychological factors contribute to these inclinations, including following the crowd, anticipating that a financial asset will be overvalued,

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asymmetric information, the desire for ownership and prestige, and the desire to be popular. Even if investors have access to fundamental financial information, these biases might lead to irrational or inadequate decisions. As a result, it is clear that markets are ineffectual as a result of individual preconceptions and anomalies that produce market inefficiency.

2. Investor Behavior and Cognitive Bias

Investors prefer to trade in markets for which they have more information due to their biases, rather than conducting a comprehensive study of all accessible and relevant data, and may only invest in stocks that have characteristics that are similar to their projected performance. The decision-making process is a cognitive process that leads to the selection of a course of action from a set of options. Every decision-making procedure culminates in a final decision. The outcome could be an action or a desired concept. Due to the potential for substantial financial losses and the high costs of correcting or compensating for an erroneous investment decision, today's investment decisions are typically important to financial security later in life. Most investors, on the other hand, lack the grasp of basic economic concepts to make investment judgments.

Understanding the major cognitive or psychological biases that often contribute to bad decisions and financial blunders is key to being a successful long-term investor. Individuals are prone to taking shortcuts, oversimplifying complex judgments, and over-reliance on decision-making due to cognitive biases. Understanding cognitive biases can help you make better decisions in the long run, reducing risk and increasing returns on investment. Some circumstances, on the other hand, may lead to poor investment selections and a loss on the investment. The following is a list of these biases.

2.1. Representability: Evaluation of an event in the same manner that other events are evaluated. The idea was proposed by Kahneman and Tversky in the 1970s, and it looks at the potential of events (Zahera and Bansal, 2017). Investors, according to Verma (2016), invest in assets with rising prices and expect their prices to climb further, while ignoring assets with lower prices. As a result of this prejudice, investors make investment decisions without completing a thorough analysis of the assets.

2.2. Overconfidence: It is that while making investing decisions, people are optimistic and believe that their own expertise is sufficient. Such investors equate market gains with their own abilities and performance, and they do not contemplate the possibility of losing without considering other aspects (Zahera and Bansal, 2017). This circumstance, according to Mittal (2019), is a factor that leads an uneducated individual investor to make illogical investing decisions.

2.3. Trend Effect: Kumar and Goyal (2014) defined this bias by stating that investors are more likely to sell the winning stock and hold the losing asset to reduce losses.

2.4. Herd Effect: When making investment or selling decisions, the herd effect might make decisions by following the recommendations of other investors, brokerage organizations, or the surroundings. Individual investors, according to Kumar and Goyal (2017), display herd behavior because they follow the actions of noise traders or a large group.

2.5. Availability Bias: This bias was identified by Kahneman and Tversky (1973) as frequent events that are simpler to remember or conceive. As a result, users can gain access to accessibility in a reasonable amount of time and with reasonable precision (Mittal, 2019). People assess the probability of an occurrence based on how common or familiar that outcome appears in their lives, according to Pompian (2006).

2.6. Anchoring: Investors, according to this bias, make early decisions based on the information they get and then make subsequent decisions based on past data. Following decisions are based on previous information (Zahera & Bansal, 2017).

2.7. Hindsight Bias: Researchers claim that youthful investors are more affected by hindsight biases than experienced investors, according to Mittal (2019).

2.8. Conservatism Bias: Conservatism bias, according to Pompian (2006), is a mental process in which people hold on to previous beliefs or predictions at the price of adopting new information.

2.9. Self-Attribution Bias: Investors with self-attribution bias, according to Baker and Ricciardi (2014), tend to attribute good results to their own activities and unfavorable results to external sources. The goal of self-preservation or self-improvement is at the root of this prejudice. Overconfident investors can lead to an increase in the number of investments made and underperformance. Investors can enhance awareness of self-attribution bias by developing accountability mechanisms such as documenting personal failures and triumphs and getting constructive criticism from others.

2.10. Framing Bias: The tendency of decision makers to react differently to different situations depending on the (framed) context in which a choice is offered is known as framing bias (Pompian, 2006).

2.11. Mental Accounting: Investors that use mental accounting divide their investments into portfolios based on a set of mental

categories and shift their focus toward emotional happiness.

2.12. Confirmation Bias: Confirmation bias is defined as the tendency to emphasize ideas based on personal convictions while rejecting events that contradict them. As a result of this tendency, people are able to persuade themselves of whatever they want to believe while minimizing critical information (Costa et al., 2017).

2.13. Loss Aversion: According to Kahneman and Tversky (1970), those who believe in the expectation theory have a stronger desire to avoid losses than to gain. As a result, the psychological chance of losing is twice as high as the psychological probability of obtaining a similar significant gain. Loss aversion, on the other hand, encourages investors to hold on to lost investments for far too long (Pompian, 2006).

2.14. Regret Aversion: Regrettably, investors may be driven to take less risk as a result of their feelings of regret. They believe that by doing so, the risk of adverse outcomes is reduced. The reluctance of investors to sell their lost assets can also be defined as the tendency to avoid regret (Baker & Ricciardi, 2014).

2.15. Pro-innovation bias: Accordingly, investors' decisions are dependent on recent occurrences in the news, and they overlook information that could be valuable but occurred a long time ago (Zahera & Bansal, 2017).

3. Literature Review

Kahneman and Tversky (1979), two psychologists who founded prospect theory, conducted one of the most important and basic research in the subject of behavioral finance. Expected utility theory, rational expectation theory, and the efficient market hypothesis have all been replaced by prospect theory. Thaler (1980) proposed a number of proposals for applying the prospect theory to the financial markets. He claimed as a financial theorist that people do not always act rationally, and that they frequently make mistakes while making investment decisions. These authors have become household names in the field of behavioral finance as a result of their ideas (Zahera and Bansal, 2018).

3.1. International Experimental Studies

Newel and Seabrook (2005) investigated the effects of financial, geographical, economic, diversity, and bias in the real estate investment industry on investor behavior from an international perspective. They revealed the results of a survey on factors influencing hotel investment decision making in their research of significant hotel investors in Australia. According to the research, financial (37.0 percent by weight) and location (29.9%) were the most important elements influencing hotel investment decisions, followed by economic (14.5 percent), diversity (12.0%), and associated considerations (6.6 percent). Nigerian investors were researched by Aregbeyen and Mbadiugha (2011). They discovered that putting 20 variables together under the headings of social, economic, psychological, and cultural elements has an impact on investment decisions. The motivation of people who achieve financial security through stock investment, future financial security, advice from respected and reliable stock market investors, the company's management team, and awareness of investing possibilities are the ten most influential variables, according to the investor ranking. Stocks, the makeup of corporate boards of directors, the firm's recent financial performance, the company's ownership structure, and reasonable estimates of future share value growth all affect judgments. Aside from economic concerns, the most relevant component was social, followed by psychological and cultural ones. Sultana and Pardhasaradhi (2012), on the other hand, investigated the factors that influence Indian individual equity investors' stock selection. As a result, they discovered which of a variety of criteria influenced investors' decisions. Individual orientation, wealth maximization, risk minimization, brand perception, social responsibility, financial expectation, accounting knowledge, government and media, economic expectation, and attorney advice are all factors that influence investor decisions, according to the applied factor analysis. In their study, Bashir et al. (2013) identified the elements influencing individual investment behavior in Pakistan. Self-image/firm image, objective information, accounting information, personal financial needs, and advocacy recommendations were among the thirty-four components classified into five variable categories that affect individual investment decision-making behavior. They conducted a survey evaluation of a group of university students and bank employees with a sample size of 125. According to the findings, all variables influence the investor's decision-making behavior in some manner, with accounting information variables having the most impact and advocacy recommendations having the least. Other side elements that were determined to be least effective in order of importance included friend or colleague recommendations, opinions of the firm's dominant shareholder, the latest price movement in the firm's stock, religious reasons, family member's viewpoint, and broker's advice.

Bakar and Yi (2016) looked at the psychological factors that influence investor stability in a sample of 200 Malaysian stock market participants. Overconfidence, prudence, and presence bias have substantial effects on investors' decision making, according to the findings, however herd behavior has no significant effect on investors' decision making. Psychological aspects

have also been discovered to differ depending on the individual's gender. Rasheed et al. (2018) looked at how representational and availability biases influenced investment decisions in Pakistan. The information was gathered from 227 investors in Pakistan's Islamabad, Lahore, and Sargodha, and evaluated using structural equation modeling and simple linear regression. Both signs, according to the findings, cause investors to stray from their sensible conclusions. The degree of irrationality in investment decision making was strongly and positively connected with representation and availability bias. Kumar and Kumar (2019) studied the factors that influence women's investment decisions in India. As a result of the significant volatility in the financial market, a lack of proper knowledge, deception, and a variety of other issues, women often avoid investing their money in the stock market. As a result, the investment behavior and risk-taking capacity of women were investigated. Variables such as sociocultural characteristics, personal elements, market-related considerations, economic factors, investment-specific factors, firm-related factors, and accounting information are beneficial in female investors' decisions, according to findings from a sample group of 400 persons. Nguyen and Nguyen (2020) investigated the impact of cash flow information derived from the operating activities of companies listed on the Vietnam stock exchange on individual investors' decision-making processes. The information gathered from 160 individual investors was used to draw a variety of conclusions. According to the findings, while making investment selections, investors are unconcerned about cash flow from operating activities as long as the company's profits are expanding. Furthermore, after profits have expanded, information on cash flows from operating activities influences individual investors' judgments. Furthermore, the contradicting information regarding the increase in earnings from commercial activities and the increase in cash flow has a substantial impact on investors' trust and comfort when making investment decisions in the Vietnamese stock market.

By studying, Al-Mansour (2020) focused solely on cryptocurrency market investors, privatization the markets and evaluating it in terms of Arab investors investing in the cryptocurrency market. The findings revealed that herd theory, prospect theory, and heuristic theory have a considerable impact on investors' cryptocurrency investment decisions. This emphasizes the significance of behavioral elements considered as predictors of investing decisions.

There are other research that customize investor biases. In their research, Parveen et al. (2020) looked at overconfidence bias. According to the authors, investors place a high value on their data and believe that past success is the best predictor of future performance. As a result, they overreact to any new information that enters the market, influencing their actions. With data from 446 individual investors and 301 companies listed on the Pakistan Stock Exchange, the authors looked at overconfidence bias (PSX). Under the 'overconfidence' bias, Ahmad and Shah (2020) looked at the decisions and performance of individual investors trading on the Pakistan Stock Exchange (PSX). They looked into the role of risk perception and financial literacy in decision-making, on the other hand. A poll of 193 investors was undertaken, and the results were mixed. As a result, risk perception both causes and fully mediates the relationship between investment decisions and performance. Financial knowledge, on the other hand, appears to lessen these bonds. Overconfidence, on the other hand, can degrade the quality of investment decisions and performance, whilst financial literacy and risk awareness can improve it. The impacts of agency, availability, anchor, adaptability, and overconfidence biases on Nepalese investors' investment choice rationality were investigated by Dangol and Manandhar (2020). According to the findings of their study, which included 391 individuals, there is a link between irrationality in the investing decision-making process and all of these biases. The significance of external locus of control and risk tolerance in the relationship between cognitive availability bias and investment decision making in Pakistan was investigated by Salman et al. (2021).

3.2. Experimental Studies from Turkey

When looking through the Turkish literature, it is clear that there are studies centered on a variety of institutions, cities, and individuals. Kahyaolu (2011), for example, investigated the disparities between male and female investors in terms of exposure to psychological and emotional elements that influence risk perception in institution-based studies. The study analyzed data from 31 individual investors' stock purchase and sale activities in the ISE between 2007 and 2009. Male and female investors have distinct levels of psychology and emotions, according to the findings of the study. In his research, Ergün (2018) looked at the investor behavior in Borsa Istanbul. According to the findings of the study, the existence of investor sensitivity should be taken into account when making investment decisions in risky periods, based on the findings of evaluating the 1997 Asian and 1998 Russian crises, the 2001 Turkish financial crisis, and the 2008 global financial crisis. The behavioral consequences of investment decisions on employees of the Istanbul Metropolitan Municipality Financial Services Unit were researched by Akal and Kılıç (2020). As a result, they gave recommendations on the investors' socio-demographic features, financial profiles, and behavioral patterns. Investors, according to the studies, act based on their feelings of trust. As a result, it follows the principle of lower return, lower risk. External and environmental considerations, then, play a vital role in investment decisions. Overconfidence, affinity bias, loss aversion, and herd behavior were all investigated by Başçı and Karaca (2020). They discovered that the demographic characteristics of investors influence their judgments as part of a survey conducted among Tokat Gaziosmanpaşa

University workers.

In their study of investor decisions in Balıkesir, Öztopçu and Aytekin (2017) looked at studies that looked at city-based investor behavior. Overconfidence, avoidance of regret, social biases, and sociodemographic traits all play a role in investment decisions in this environment. Investors in Balıkesir have been found to have a psychological, information and communication-based, emotional, and social inclination in their investment decisions, which is consistent with findings from earlier studies on the same subject in different locales. The evaluation of the emotional and cognitive characteristics of investors in Erzincan was presented by Özer and Korkulutaş (2018). Extreme optimism, presence tendency, representation tendency, regret avoidance tendency, loss aversion, and preference for the familiar were all investigated in this study. Altın (2018) investigated the impact of culture on individual investors' investing decisions in Isparta and Burdur. Individual investors' financial literacy levels, risk preferences, cognitive and emotional dispositions, and the impact of culture on investing preferences were all investigated in the study. As a result, it's been found that investors don't make rational decisions and are heavily influenced by prejudices. In his study, Genç (2019) looked at investor decisions in Sakarya for the working population. Accordingly, the investors' demographic traits, financial profiles, high earning desire, low risk expectation, knowledge, decision-making environment, loss aversion, and optimistic bias were investigated. According to the data, psychological variables play a significant role in investment decisions. Atak (2020) has prepared a study on the effects of trends in investor decisions on Muğla tourist enterprise management. Sociodemographic variables, investment time, information sources, preferences, and elements used as a basis were all analysed in a survey of 548 managers.

By separating the survey method from the index data, it can be shown that investment habits are also investigated. In his study, Tosun (2021) looked at which investment methods Turkish investors choose in fear and confidence scenarios. The research was conducted using the Consumer Confidence Index, Economic Discontent Index, Borsa Istanbul Implied Volatility Index calculated by the Turkish Statistical Institute, and a new Turkey Financial Fear Index developed in this context. According to their findings, the increasing uncertainties in Turkey demonstrate that fear is more prevalent in making investment decisions in financial markets and has an impact on investment decisions. Furthermore, it has been discovered that when fear and confidence dominate investor emotion, they are less risky, avoid uncertainty, keep their status quo, and gravitate to familiar investing tools.

4. Conclusions

To avoid price swings and to assist investors feel safe and comfortable when making investment decisions, it is critical that investors give relevant financial information. As a result of the preceding studies, policymakers are led to make diverse judgments by the information and psychological orientations of investors. Understanding individual investor behavior by combining finance and psychology can help explain stock market anomalies, according to some.

Investors' investing decisions are accompanied by questions that must be answered, in addition to their cognitive elements. As a result, what affects do investors' own psychological aspects have on their market decision-making, and are investors conscious of these consequences? The answers to these questions are crucial in determining investment practices and prejudices. All of these assumptions, which are also based on actual investigations, will assist investors in becoming more conscious of their own biases and shortcuts. As a result, investment decisions will become more reasonable, resulting in enhanced market efficiency.

The findings of experimental investigations based on the market, country, city, and even sector yield a variety of implications. Findings such as the issues that investors associate, the factors they consider when choosing investment instruments and their feelings of confidence, the impact of intuitive shortcuts and biases in the problems they encounter in the investment process, the analysis of the results they encounter, and the effect of indecisions can all be seen in these studies.

According to this study, which shows investor biases and the literature that develops around them, behavioral impacts and investor characteristics have a substantial impact on the markets one by one. Investors should be aware of their previous behavioral blunders and do a thorough study of each investment to avoid repeating them. It should be mentioned, however, that in addition to cognitive impacts and biases, investors' demographics and financial variables should be considered.

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