



Recognition Heuristic Bias and Cognitive Heuristic in Investment Activities

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Abstract:

This study aims to examine in depth behavioral biases driven by recognition heuristics and cognitive heuristics in investment activities, focusing on individual investors in the domestic investment community. The novelty of this research lies in the combination of a phenomenological approach with participant observation in stock and mutual fund communities, which allows for the capture of the real-world dynamics of heuristic use in the context of social investing, an area that remains under-explored in behavioral finance studies in emerging markets. Data were collected through participant observation and semi-structured interviews, using purposive sampling and snowball sampling techniques to obtain diverse perspectives from individual investors' experiences. Thematic analysis yielded three main findings: first, investors' perceptions of heuristic biases can be classified into two categories, namely heuristics as mental shortcuts and heuristics as practical thinking patterns. Second, the types of biases commonly found in the decision-making process consist of recognition heuristic biases and cognitive heuristic biases that operate simultaneously in the decision-making process. Third, the real impact of recognition heuristic biases and cognitive heuristic biases in investment activities consists of suboptimal portfolio diversification and significant investment losses due to overly simplified decision-making. The contribution of this study to behavioral finance literature lies in providing contextual empirical evidence from the domestic market, demonstrating that heuristics not only influence individual investment decisions but are also shaped by community dynamics and investor social interactions.

Keywords: Cognitive Heuristic Bias, Investment Activities, Investors Recognition, Heuristic Bias

1. Introduction

Investor behavior plays an important role in investment decision making, especially in financial markets (Shah et al., 2018). In the Indonesian stock market, investors often behave irrationally due to psychological factors, which cause bias in investment decisions (Kasoga, 2021). Rational investors will make choices based on available information and reasonable profit expectations (Raut, 2020), while irrational behavior is more often caused by emotional factors and less than optimal habits (Zahera & Bansal, 2018). These psychological factors often lead to decision errors that can be detrimental to investment ((Heymans, 2022). Irrational investors tend to make unprofitable decisions, while rational investors will choose investments whose returns are expected to cover all costs (Mccarthy, 2020). In uncertain market conditions, decision making becomes very complex and is influenced by limitations in information, time, and cognitive abilities (Simon, 1955)

The use of heuristics to overcome these limitations can speed up decision making but often causes biases that lead to systematic errors in investment decisions (Tversky & Kahneman, 1974). Investment success is highly dependent on the quality of decision making and the right time to take advantage of opportunities (Weixiang et al., 2022). Biases in decision making, including heuristic biases, often occur in individual investors who are more prone to judgment errors compared to institutional investors (Zahera & Bansal, 2018). These biases, such as disposition bias and overconfidence, can be detrimental to investment decisions (Hidayat et al., 2023). Heuristic biases can also lead to market anomalies that continue to develop and reduce investment performance ((Mccarthy, 2020). Previous studies have also shown that the use of heuristics in decision making often has a negative impact on the efficiency of investment decisions (Ahmad et al., 2023).

This study aims to more deeply examine the impact of behavioral biases caused by recognition heuristics and cognitive heuristics in investment. This study also addresses the methodological gap identified by previous studies, which focused solely on quantitative approaches and emphasized the relationships between variables, thus failing to fully explain the psychological context and subjective experiences of investors. This methodological limitation indicates a gap in the literature that needs to be filled. Therefore, this study seeks to address this gap by using a qualitative approach to contextually and in-depth explore the experiences of individual investors in the investment decision-making process. Therefore, this study is expected to have a theoretical impact on behavioral finance theory, particularly regarding the impact of applying recognition heuristics and cognitive heuristics in the investment world. Practically, this study is expected to provide insights for investors in overcoming the negative impacts of heuristic biases and avoiding fatal errors in investment decisions. This study is also expected to provide input for capital market regulation, enabling the Financial Services Authority (OJK) to develop policies that protect investors from detrimental heuristic biases.

2. Literature Review

Behavioral Accounting in General in the Investment Context

Previous empirical studies on heuristic-driven investor behavior have largely focused on identifying specific types of biases—such as representation, availability, anchoring, and disposition effects—often in crisis contexts or based on general investor populations (Jain et al., 2023; Sudirman et al., 2023; Orenge et al., 2021). While these studies have provided valuable insights, they tend to adopt a predominantly quantitative survey approach, which measures the prevalence of biases but lacks depth in capturing the underlying cognitive processes and contextual factors that shape them. Furthermore, much of the literature on recognition heuristics has been conducted in developed markets (Raue & Scholl, 2018; Mousavi & Gigerenzer, 2017), leaving a gap in understanding how these heuristics manifest in emerging markets with distinct socio-cultural and community investment dynamics. Furthermore, previous research often treats recognition heuristics and cognitive heuristics as separate constructs, without exploring their potential interactions and joint effects on investment decisions. This study addresses this gap by employing a qualitative phenomenological approach complemented by participant observation in a domestic investment community, allowing for the exploration of investors' lived experiences and the social influences that drive heuristic use. By contextualizing recognition and cognitive heuristics within community-based investing in an emerging market, this study provides nuanced and context-specific evidence that bridges micro-level cognitive mechanisms with macro-level behavioral patterns, thereby expanding the scope of behavioral finance beyond the limitations of previous models and measurement frameworks.

Prospect Theory

Tversky & Kahneman, (2019) state that individuals make decisions based on the gains and losses obtained, not the optimal end result. This theory is related to heuristics, where individuals tend to use mental shortcuts to simplify the evaluation of uncertain probabilities (Tversky & Kahneman, 1974). This theory combines aspects of economics and psychology, explaining human behavior that is often contradictory and irrational (Tversky & Kahneman, 2019). In making investment decisions, this theory shows that investors tend to take risks in the face of losses, holding losing stocks because they avoid the pain of further losses rather than gaining profits (Shefrin & Statman, 1984). This prospect theory is reflected in the S curve that describes individual reactions to losses and gains. Individuals tend to avoid risk in profit situations, but seek risk when experiencing losses, in the hope of reducing these losses (Tversky & Kahneman, 2019). Fear of loss often influences the decisions made, causing investors to use heuristics that can worsen decisions and result in suboptimal investment performance (Raab et al., 2019).

Investor Behavior Driven by Heuristics

Heuristics are practical approaches to making quick and efficient decisions, although they do not always result in optimal decisions. In the context of investment, heuristics such as the recognition heuristic and cognitive heuristic often influence investor decisions. The recognition heuristic, for example, shows that individuals tend to choose something that is already familiar, even though there is stronger evidence supporting other options. In investment, this is seen when investors choose to invest in large, well-known companies rather than smaller, more profitable companies (Raue & Scholl, 2018). This can lead to irrational and suboptimal decisions, as investors rely more on familiarity than in-depth analysis (Mousavi & Gigerenzer, 2017). In addition, cognitive heuristics also influence investment decisions. Cognitive biases such as groupthink, disposition effect, and anchoring bias can lead to irrational decisions. For example, the disposition effect describes the tendency of investors to sell winning

stocks too quickly and hold losing stocks too long, which is often caused by psychological factors (Oreng et al., 2021). Other biases, such as the recency effect and overconfidence bias, can cause investors to be more influenced by recent information or feel overconfident in their decisions, which risks ignoring deeper analysis (Shah & Butt, 2024).

Impact of Recognition Heuristic Biases and Cognitive Heuristics in Investment Activities

In investment management, recognition and cognitive heuristics can lead to a lack of portfolio diversification and risky decision-making, such as relying too much on familiar stocks or being overconfident in choosing certain stocks (Gavrilakis & Floros, 2022). This can have a negative impact on long-term investment performance, as the decisions taken may be suboptimal and influenced by existing biases (Gigerenzer & Goldstein, 2011). Another impact of using heuristics can lead to a lack of diversification so that investors who are influenced by recognition heuristics may only invest in stocks or products that they are familiar with, without considering better or more profitable alternatives (Mikołajek, 2017). In addition, the increased risk experienced when using heuristics, investors also tend to experience overconfidence bias or availability bias, which can cause investors to take unnecessary or excessive risks (Kirera & Mburugu, 2019). Therefore, it is important for investors to recognize and reduce the influence of heuristics in decision making, by utilizing more rational and data-based analysis (Huseynov et al., 2020).

3. Method

This study uses qualitative methods to examine the impact of behavioral biases resulting from recognition heuristics and cognitive heuristics in the context of investment decision-making. This study uses a phenomenological approach, with the aim of investigating the subjective experiences of individuals and groups in the investment decision-making process (Nasir et al., 2023). The research subjects are individual investors who are members of the domestic investor community, chosen because they are more susceptible to investment decision biases due to the influence of overconfidence (Alifya et al., 2024). The data collection process was carried out through participatory observation in the investment community to identify psychological factors that could potentially trigger biases. The next step was semi-structured interviews, where participants were selected using purposive sampling with the criteria of having at least one year of investment experience, making independent investment decisions, and being willing to participate in interviews. Initial informants who met the criteria were interviewed using flexible key questions to allow for in-depth exploration. Subsequently, snowball sampling was used to expand the pool of respondents who met the criteria based on recommendations from initial respondents, and this process continued until the data reached saturation. The collected data was then transcribed, documented, and analyzed thematically, supplemented with triangulation and member checking procedures to ensure the validity of the findings (Rofiah, 2022). Thematic analysis consists of six stages as outlined by Braun & Clarke, (2006) namely data familiarization, initial coding, theme search, theme review, theme confirmation, and final report preparation accompanied by relevant empirical examples.

4. Result and Discussion

The results of this study were obtained from data compiled by researchers based on coding. The data collection process has been carried out through observation and interview processes. Observations were made in the domestic investor community when making decisions in choosing an investment, overcoming losses and profits, and how to handle the impacts caused by the chosen investment. Interviews were conducted with thirteen informants consisting of nine male investors and four female investors. Based on the results of the coding, this study emerged four themes, namely investor perceptions of heuristic bias, types of heuristic bias in investment, the impact of recognition heuristic bias and cognitive heuristics in investment activities, and strategies for overcoming heuristic bias in investment activities.

Investor Perceptions of Heuristic Bias

The theme of investor perception of heuristic bias is a theme that emerged from the results of data analysis, this theme explains how investors view heuristic bias. Informants in this study revealed investor perceptions of heuristic bias, namely mental shortcuts or practical thinking patterns. Heuristic bias is a human tendency to make decisions or draw conclusions based on existing rules of thumb or patterns, often without in-depth analysis, usually done

when someone is faced with uncertain and time-limited choices (Tversky & Kahneman, 1974). This bias arises from the use of heuristics, namely fast and simple thinking strategies that can be very helpful in situations that require quick decisions. Although efficient, heuristics are not always accurate and often lead to errors in judgment (Handoko et al., 2024). For example, in the context of investment, investors who use the recognition heuristic may assume that the shares of a company they know and are more familiar with are able to provide profits because they feel safer and have invested in shares before, even though market conditions and the company's fundamentals may change. This statement supports the prospect theory which states that a person does not always act rationally when faced with risk and uncertainty. The results of this study are in line with Rozak et al., (2023) who stated that when heuristics are not applied properly and in accordance with relevant data, it will result in bias in decision making.

Types of Heuristic Bias in Investment Activities

The theme of heuristic bias in investment activities emerged from the data analysis, the researchers highlighted the types of heuristic biases that investors face during decision making. The study identified two main types, namely recognition heuristic bias and cognitive heuristic bias. Recognition heuristic bias refers to the tendency to choose a familiar option over an unfamiliar one, even if other alternatives are supported by stronger evidence (Raue & Scholl, 2018). Informants revealed that this bias often occurs because investors feel more confident in familiar investments, even if there are better options. Recognition heuristics help in quick decision making, where in-depth analysis is not possible (Gadzinski et al., 2022). However, this shortcut can lead to irrational choices, especially when familiarity does not reflect true value. This concept is in line with prospect theory, which states that people act irrationally when faced with uncertain outcomes, influenced by how choices are framed as potential gains or losses. Jain et al., (2019) also stated that sticking to familiar stocks can cause investors to miss out on more profitable opportunities. Cognitive heuristic bias involves using mental shortcuts to make quick decisions (Cascão et al., 2023). Investors tend to avoid conflict and follow the majority, even when it is not the best option. This behavior is consistent with prospect theory, which explains how cognitive biases lead to irrational decisions, especially when individuals use simple rules that distort judgment. Ahmad & Wu, (2023) highlight how cognitive biases such as groupthink, where individuals prioritize group harmony over rationality, can significantly impact investment decisions.

The Impact of Recognition Heuristic Bias and Cognitive Heuristics in Investment Activities

The theme of the impact of recognition heuristic bias and cognitive heuristics in investment activities is a theme that emerged from the results of data analysis, the theme explains what impacts are caused by the use of recognition heuristics and cognitive heuristics when making decisions in investment activities. Informants in this study revealed that there are three impacts of recognition heuristic bias and cognitive heuristics experienced by investors in investment activities, namely, investor portfolio performance, irrational decisions, and investment losses. Recognition heuristic bias often occurs when investors prefer assets or investments that they are familiar with, even though there are other choices that are more rationally profitable. Informants in this study explained that investors sometimes prefer stocks from large and well-known companies simply because they are more familiar with the brand, even if other companies with higher risk profiles and higher potential returns may be more suitable for their investment goals. In line with prospect theory, the results of this study support that decision making by investors is often irrational due to the use of recognition heuristics, so that it will have an impact on the diversification of less than optimal portfolio performance. This is supported by research Ar-Rachman, (2018) who stated that poor diversification can increase overall portfolio risk and reduce long-term performance.

This can result in reduced profits due to only focusing on familiar assets, investors may miss out on more profitable or growing investment opportunities, which can hinder the potential for portfolio growth. Informants in this study revealed that cognitive heuristic biases such as anchoring bias can cause investors to persist in bad investments or fail to identify warning signs before major losses occur. This bias prevents them from making rational decisions about when to sell or transfer their funds to more profitable investments. This is in line with prospect theory which states that investment decisions are often not entirely rational and are influenced by various psychological factors, including how information is presented and how easy it is to remember information, as well as how individuals perceive potential losses or gains in their investments. Budiman, (2023) also stated that the use of cognitive heuristics such as anchoring bias makes it possible for investors to maintain assets that previously had high prices, even though market conditions have changed. This can lead to greater losses as they do not act quickly when prices start to fall, which can result in greater losses from failed investments.

5. Conclusion and recommendation

This study identified three key findings. First, it highlights investors' perceptions of heuristic biases in investment activities, focusing on mental shortcuts and practical thinking. Second, it categorizes the types of heuristic biases encountered in investment decisions: recognition heuristic bias and cognitive heuristic bias. Third, it examines the impact of heuristic biases, revealing that these biases contribute to suboptimal portfolio diversification and significant investment losses. The implications of this study can provide insights for individual investors to be more aware of recognition heuristic biases and cognitive heuristic biases, as these biases can significantly influence investment choices. Investors are also urged to deepen their knowledge of investment strategies to help mitigate the impact of biases and improve overall investment returns. Furthermore, this study emphasizes the importance of staying abreast of market trends and ensuring financial readiness to avoid poor investment decisions, which ultimately lead to more profitable outcomes. For the Financial Services Authority (OJK), the results of this study can serve as guidelines for improving educational efforts for the public, especially novice investors, regarding investment knowledge, strategies, and practices. Thus, the OJK can improve the understanding of novice investors, reduce bias, and encourage more profitable investments, thereby contributing to national economic growth. This study's limitations, while capturing the depth of investor experience, preclude quantitative measurement of the prevalence and relative strength of heuristic biases across the broader population. The study's limited scope within the domestic social, cultural, and market contexts also raises questions about the differences in heuristic manifestations across demographics, cultures, and regulatory environments. Furthermore, the findings focus primarily on identifying and understanding the processes by which heuristic-based behaviors develop, without measuring their impact or examining statistical relationships with other behavioral and investment performance variables. Therefore, future research is recommended to adopt a mixed-methods approach that integrates qualitative and quantitative strengths, employing factor analysis to identify latent constructs and quantify the relative influence of various biases on investment decision-making. This approach would not only validate the thematic patterns found but also expand the conceptual framework of behavioral finance from a purely descriptive to a predictive and prescriptive model, thereby significantly contributing to designing more effective interventions for regulators, educators, and market participants.

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