

BEHAVIOUR BIAS IN INVESTMENT DECISIONS: EMPIRICAL STUDY OF INVESTOR PSYCHOLOGY IN INDONESIA

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ABSTRAK

Investasi melibatkan penempatan uang ke dalam berbagai kelas aset untuk jangka waktu yang telah ditentukan dengan harapan dapat meningkatkan nilai total dan menghasilkan lebih banyak pendapatan. Sasaran investasi dan ekonomi, seperti penciptaan nilai, perolehan laba, dan sasaran terkait lainnya, saling terkait erat. Penting untuk menyadari bahwa investasi dapat mencakup sasaran finansial, sosial, dan spiritual tambahan. Penelitian ini bertujuan untuk menilai perilaku investor dari perspektif internal dan eksternal terkait keputusan investasi. Studi ini menggunakan metodologi Structural Equation Model (SEM) yang memanfaatkan perangkat lunak Smart-PLS. Temuan studi ini menunjukkan bahwa kualitas termasuk kemarahan, kecemasan, terlalu percaya diri, dan pemantauan diri secara positif memengaruhi keputusan investasi. Herding mengurangi dampak buruk dari kemarahan, kecemasan, terlalu percaya diri, dan pemantauan diri pada keputusan investasi. Konsekuensi penelitian ini dapat membantu investor dalam menghindari risiko irasional dan menghasilkan temuan yang lebih objektif berdasarkan studi menyeluruh. Kecenderungan ini dapat mengakibatkan transaksi pasar yang tidak efisien, gelembung aset, dan volatilitas yang signifikan. Studi ini muncul sebagai bentuk perlawanan terhadap pemahaman konvensional tentang pasar valuta asing yang didasarkan pada premis rasionalitas pedagang. Penelitian ini mengidentifikasi bahwa emosi, persepsi risiko, dan bias kognitif sering memengaruhi keputusan investasi dengan memahami sifat manusia.

Kata kunci: keputusan investasi, bias perilaku, psikologi investor, Indonesia.

ABSTRACT

Investing involves putting money into a variety of asset classes for a predetermined amount of time in the hopes of increasing total value and producing more income. The goals of investments and economics, such as value creation, profit generation, and other related goals, are strongly correlated. It is critical to recognize that investments may include additional financial, social, and spiritual goals. This research aims to assess investor behavior from internal and external perspectives concerning investing decisions. This study employs the Structural Equation Model (SEM) methodology utilizing the Smart-PLS software. This study's findings demonstrate that qualities including anger, anxiety, overconfidence, and self-monitoring positively influence investment decisions. Herding mitigates the adverse impacts of anger, anxiety, overconfidence, and self-monitoring on investment decisions. This research's consequences can assist investors in circumventing irrational risks and yield more objective findings grounded in thorough study. This tendency can result in inefficient market transactions, asset bubbles, and significant volatility. This study arose as a counter to the conventional understanding of exchange markets predicated on the premise of trader rationality. This research identifies that emotional emotions, risk perception, and cognitive biases frequently affect investment decisions by comprehending human nature.

Key words: investment decisions, behavior bias, investor psychology, Indonesia.

INTRODUCTION

Investment is allocating financial resources into diverse asset classes for a specified duration, with the objective of generating supplementary income and enhancing overall value. There are strong correlations between investment objectives and economic objectives, including profit generation, value addition, and various other associated aims. It is important to acknowledge that investments may encompass supplementary social, financial, and spiritual objectives (Kappal & Rastogi, 2020). Consequently, individuals may possess diverse goals or purposes when participating in financial activities. Investment is a crucial element that substantially fosters economic advancement, albeit with attendant risks and obstacles (Aljifri, 2023). They highlight the importance of attracting additional investment and encouraging the continued growth of investment funds to increase local investment activity. However, it is important to be careful when investing due to the risks inherent in such financial endeavors. It is widely acknowledged in finance that there is a common belief that increased risk is often associated with higher potential returns (Altaf & Jan, 2023a; Mishra & Metilda, 2015). The finding strengthens the positive correlation between risk and return (Niculaescu et al., 2023). Besides, carrying out investment activities is not easy because of the potential consequences.

It is essential to exercise caution and use a strategic approach when making investment decisions to alleviate any adverse consequences of an investment (Alsunni & Latif, 2021). The evaluation of investment techniques is essential due to its capacity to enhance finance acquisition and bolster project security. Prior to making an investment decision, possessing the requisite skills and knowledge in a specific financial domain is essential, as this will enable effective fund management (Alsunni & Latif, 2021). Financial literacy is crucial due to its positively impacts in investing decisions of undergraduate students.

The scope of investment is extensive as geographical limitations do not constrain it. The individuals can invest not only in specific locations but also in more remote areas, thus promoting national investment. Foreign Direct Investment (FDI) refers to investments involving activities conducted from one nation to another. Foreign direct investment (FDI) is more prevalent in developing countries than in industrialized nations. Yuan et al. (2022) assert that most developed nations will depend on this investment to expedite their economic advancement. Foreign direct investment (FDI) plays a crucial role in fostering a nation's long-term economic growth. However, it is important to know that there are negative impacts or potential obstacles to economic progress in the short term. The long-term impact of Foreign Direct Investment (FDI) on profits or profits is restricted. According to Investopedia, an investment is classified as long-term if the term exceeds one year and, conversely, short-term if the term is less than one year (Schickinger et al., 2021). Therefore, this research aims to determine investor behavior in the context of funding decisions by considering the internal and external factors that influence it.

Investigating Animal Behavioural Bias in investment decision-making has emerged as an area of interest to academics and professionals in the financial industry. This research was conducted because of the need to understand the influence of psychological factors and human behavior on the complex and often irrational investment decision-making process in financial markets. This research is influenced by previous research on animal behavior to investigate various aspects of human behavior in an investment context. These include herding behavior, overconfidence, loss aversion, and confirmation bias. Several researchers (Altaf & Jan, 2023a; Cicchiello & Kazemikhasragh, 2022; Tversky & Kahneman, 1987) have investigated the impact of those behavior on market inefficiency, formation of asset bubbles, and extreme price fluctuations. This research also

emerged as a response to the conventional paradigm regarding financial markets, which relies on the assumption of the rationality of market players. In the context of this research, it is known that factors such as emotions, risk perception, and cognitive biases can influence investment decisions. This is related to understanding human behavior, which may have similarities with animal behavior.

Additionally, the investigation of Animal Behavioural Biases in Investment Decisions seeks to improve investment strategies by comprehensively understanding methods to mitigate adverse consequences associated with these cognitive biases. This study involves the use of instruments and methods that can help investors avoid irrational behavior and make more objective decisions based on in-depth analysis. In this emerging context, interest and awareness of the role of behavior in investment decision-making have increased significantly. Research conducted in this field continues to experience significant developments. The findings of this research provide valuable insights for investors, financial practitioners, and academics involved in this research.

LITERATURE REVIEW

Investment Decision

The investment decision-making process can be arduous and intricate. Multiple factors and circumstances must be taken into account. A recent study by Altaf & Jan (2023b) and Ul Abidin et al. (2022) categorizes the decision-making process into three primary classifications: decisions made under uncertainty, decisions made under risk, and decisions made under ambiguity. The three primary domains must be meticulously assessed to alleviate detrimental effects on investment initiatives. Novice investors should use caution during investment operations, whereas established Korean firms with prior investing experience must demonstrate heightened diligence in their investment strategies (Batmunkh et al., 2020). During the pandemic, multinational corporations often

retain a consistent investment strategy following an extensive evaluation.

The authenticity of sources of information regarding investments is a big concern for certain investors (Thampanya et al., 2020). The presence of incompetent or biased sources can significantly influence an investor's final decision regarding whether or not to invest. Therefore, assessing the reliability of information is very important for investors. Investment decisions are influenced by financial literacy, which is mediated by various factors in behavioral finance, including overconfidence, anchoring, and availability (Chan et al., 2004). However, research findings show that mediation's role still needs to be considered.

Investor psychology studies examine cognitive and emotional factors that influence investors' decision-making processes in financial markets. Behavioral finance is a field that seeks to understand and explain the decision-making processes and behavior observed in financial markets. This research examines how psychological factors, and cognitive biases can impact an individual's financial choices and actions. Behavioral finance encompasses a range of cognitive biases and behavioral tendencies, including risk aversion bias, loss aversion bias, mental accounting, overconfidence, regret aversion bias, herding behavior, self-control bias, and others (Sri et al., 2013). The role of behavioral finance always results in achieving optimal financial decisions. There is a visible negative relationship between financial knowledge and behavioral biases. According to (Batmunkh et al., 2020; Fan, 2019), a higher level of financial literacy will decrease investors' vulnerability to behavioral biases. Previous research findings showed that male participants demonstrated higher levels of financial literacy than female participants.

In the financial sector, individuals often show vulnerability to psychological and sociological elements, which then give rise to behavioral biases (Strömbäck et al., 2017). As a result, the abovementioned factors will influence investment choices (Altaf & Jan,

2023a; Kaestner, 2011). The impact of these factors may be positive or negative depending on the level of importance of each factor or trait in the investment decision-making process. When comparing behavioral finance theory with traditional finance theory, it is clear that it, which explains investment decision-making, tends to have a level of complexity that is considered excessive (Alexakis et al., 2023). Traditional financial theory incorporates psychology to describe and explain many biases influencing investment decision-making. These theories describe individuals as rational entities.

Animal Behavioral Bias

In the realm of behavioral finance, there is an interesting concept known as "Animal Behavioural Bias," which refers to behavioral patterns in financial decision-making that resemble animal behavior (Alexakis et al., 2023). This concept provides an understanding of how individual psychological and emotional factors can influence their investment decisions. One example of Animal Behaviour Bias is "herding," when investors tend to follow decisions made by the majority of individuals in the market, similar to a herd of animals following the direction of the majority of herd members. Behavioural Herding can fuel irrational market volatility because investors become too fixated on collective action without critically considering contradictory information (Yousaf & Yarovaya, 2022).

Apart from that, there is also the concept of "loss aversion," which describes the human tendency to experience more discomfort due to losses than satisfaction due to comparable gains. This trait can refer to avoiding excessive risk or holding back detrimental investments for fear of loss. Apart from that, there is also a phenomenon called "confirmation bias"; investors tend to look for information that supports their beliefs and ignore information that contradicts those beliefs (Nguyen et al., 2023). The finding can cause an imbalance in the decision-making process and weaknesses in objective analysis.

The behavioral biases discussed exemplify how human characteristics, akin to animal behaviors, might affect decision-making in investing contexts. A profound comprehension and mitigation of these biases is essential for formulating astute and effective investing strategies inside the intricate and frequently emotionally impacted financial sector (Utami & Ady, 2013).

Herding

Herding behavior is considered to be one of the prominent features in the field of behavioral finance. Herding can be characterized as convergent social behavior when an individual's beliefs or behavior become aligned with the group due to local interactions. The choices made by other people significantly influence the decision-making process in obtaining and offering alternatives. Herding behavior can manifest and potentially reduce individuals' future regret regarding their choices. According to recent researches (Alexakis et al., 2023; Batmunkh et al., 2020), systematic behavioral biases contribute to stock pricing errors in the short term. Because of that, A decrease in herding behavior can have an impact on the magnitude of stock price deviations. Other finding in the mobile communications business show that information obtained from external sources significantly impacts consumer purchasing decisions (Yousaf and Yarovaya, 2022). However, the impact of herding behavior is expected to decrease during the post-purchase phase.

In the context of the pandemic era, there has been an increase in herding behavior in European capital markets. This study's findings indicate herding behavior, as those with limited information try to imitate those with greater knowledge. Apart from Europe, several countries in Asia, including Japan, Hong Kong, Taiwan, Singapore, South Korea, and mainland China, also observe a tendency for capital market investors to imitate other countries that are considered to have privileges and more comprehensive

information (Altaf & Jan, 2023b; Nguyen et al., 2023; Sri et al., 2013).

Heuristics

Heuristics play a significant role in the investment decision-making process. In this context, heuristics refer to practical principles or mental guides used by investors to handle complex information in often uncertain financial markets. One common heuristic in investing is the "availability heuristic," in which investors tend to give greater weight to information that is easy to access or remember. The current information or well-known news will significantly impact investment decisions, even though it is only a temporary reflection of market conditions (Aljifri, 2023; Abdin et al., 2022).

Although heuristics can help make quick decisions, they can also be a source of prejudice and errors in investing. Investors who rely too much on heuristics often need to pay more attention to more comprehensive fundamental analysis or relevant data. Therefore, understanding how heuristics influence investment decisions and being aware of potential biases are important factors in developing smarter and more effective investment strategies (Wafeq et al., 2019). Successful investing requires a balance between quick decision-making and careful analysis. The following are some examples of heuristic activities:

Trait Anger

Trait anger refers to a person's disposition or tendency to experience anger in various situations and times. Anger refers to an individual's tendency to experience frequent and persistent anger, even without significant provocation (Chan et al., 2004). Anger can be classified as a psychological construct related to a person's personality and potentially influencing his actions and behavior. In a financial context, anger may provide more insight into financial decision-making, as it influences individuals to allocate funds to various high-risk investments, thereby impacting their propensity toward

long-term investments (Batmunkh et al., 2020; Sri et al., 2013; Troudi et al., D. 2020). Individuals tend to overestimate the financial gains they will experience as a result of their investments. Individuals with a high tendency to experience anger are more likely to be patient when making decisions regarding the sale of their investments. Individuals who take greater risks recognize the potential to earn higher returns over a long period. Modification of anger traits can be achieved by implementing educational interventions that encourage the acquisition of knowledge regarding certain traits and strategies to increase their impact.

Trait Anxiety

Trait anxiety refers to stable personality characteristics that predispose individuals to experience higher levels of anxiety in a variety of situations and contexts. Trait anxiety is a prominent behavioral characteristic extensively examined and incorporated into various personality models. Trait anxiety is an enduring characteristic related to an individual's tendency to interpret a variety of environmental stimuli as potentially distressing. There is a significant relationship between trait anxiety and people's tendency to avoid undesirable outcomes (Alsunni & Latif, 2021; Barros et al. 2022). The individual may lack the courage to make decisions that involve a significant degree of danger. Conversely, individuals are more likely to make decisions with less risk despite the fact that these decisions also provide lower rewards.

Additionally, investors will prefer to maintain existing portfolio strategies rather than make any changes to the plan. Trait anxiety has been shown to impact investors, causing them to resist changing their investment strategies. According to Shamo-Nir (2023), individuals with higher levels of trait anxiety may prefer rigid methods even though they have more knowledge. Apart from that, the presence of trait anxiety can influence investors' confidence level in carrying out investment activities, ultimately

giving rise to the possibility of reluctance or a decision not to invest at all. Therefore, when individuals experience significant levels of worry, seeking financial guidance, counseling, or managerial recommendations may be necessary to reduce the detrimental effects of trait anxiety (Alsunni & Latif, 2021).

Overconfidence

One phenomenon that is widely studied in the field of psychology is overconfidence. Overconfidence bias can be defined as a scenario when investors show an overestimation of their financial understanding and thus tend to underestimate the associated risks. The existence of overconfidence bias can then result in investors' irrational behavior. There is evidence to suggest that individuals who are middle-aged, have lower incomes, and have lower levels of education tend to exhibit higher levels of overconfidence (Aljifri, 2023; Lartey et al., 2022). When comparing overconfidence with other factors, there are different impacts on an organization's market performance. Investors characterized by excessive optimism tend to exhibit reduced capacity to estimate prices when making investment decisions accurately. This phenomenon can be attributed to a negative correlation between confidence level and forecast accuracy. There is a difference in financial knowledge between male investors, who have fundamental and advanced understanding in this field (Abdin et al., 2022). Acquiring a higher level of financial knowledge can sometimes result in individuals experiencing greater self-confidence. The existence of certain cognitive biases has the potential to influence investors' decision-making processes, thereby impacting stock market dynamics.

Self-monitoring

Self-monitoring is how individuals observe and evaluate their thoughts, feelings, and behavior. Self-monitoring is a personality feature related to an individual's perception and monitoring of expressive behavior and image. It is also related to scenarios in

which a person directs his attention to observing and adapting his behavior to align with the external social context. An alternative interpretation of self-monitoring describes an individual's ability to regulate their behavior in many new and unfamiliar situations (Chan et al., 2004; Troudi et al., D. 2020). Consequently, self-monitoring practices serve to observe and assess improvements in individual behavior, thereby encouraging self-reflection. The relationship between self-monitoring and investor behavior can be observed through examples where an investor underestimates the strategies or decisions made by his peers. According to Dumohar (2022), individuals with low levels of self-monitoring tend to show reluctance to adapt to events around them and underestimate the practices of other investors. An investor's ability to adapt to their environment is critical due to the volatility and fluctuation of investment trends over time. Over time, self-monitoring will likely impact a person's financial decision-making process.

The relationship between variables is the connection or correlation between two or more variables in a research or analytical context.

The emotion of anger can help in making investment decisions. Individuals who tend to respond with anger may demonstrate a higher propensity to take proactive and courageous action in the context of their investments, even though anger is often associated with negative emotional experiences. The situation can increase an individual's readiness to take calculated risks and make crucial decisions, which is a very important attribute for successful investors. Anger can motivate investors to respond quickly to market changes and failures, allowing them to take advantage of opportunities and mitigate losses when necessary. However, It is important to note that these positive effects depend on expressing anger constructively and not letting it interfere with decision-making (Dumohar, 2022; Rahman & Gan, 2020). Trait anger is a motivational force that

compels individuals to make decisions and achieve desired outcomes.

H₁: Trait anger has a beneficial impact on investment decision

Based on external observations, there are aspects of the nature of anxiety that are often associated with chronic conditions, such as anxiety and fear, which may have a positive impact on a person's ability to make optimal investment decisions (Dumohar, 2022; Rahman & Gan, 2020). However, remember that having a moderate level of anxiety can improve your ability to make investment decisions. Individuals with moderate levels of trait anxiety tend to show higher caution and anxiety in planning their finances and investments. However, it is important to remember that maintaining balance is important because excessive anxiety can have a negative impact.

H₂: Trait anxiety has a beneficial impact on investment decision

In some specific contexts, overconfidence is often considered a cognitive bias that can potentially result in suboptimal decisions, and benefit investment decisions. Investors with a high level of self-confidence generally demonstrate a strong belief in their abilities, allowing them to take the initiative in investing in potential opportunities that other individuals may ignore due to fear or apprehension. In some situations, investors with a high level of self-confidence can achieve significant success because they have the courage and persistence necessary to take advantage of opportunities that others may miss (Aljifri, 2023; Abdin et al., 2022). However, the positive impacts are not universal and sometimes have negative consequences. Excessive confidence have the potential to cause negative impacts.

H₃: Overconfidence has a beneficial impact on investment decision-making.

Self-monitoring practices have been proven to provide good results in financial decision-making. Self-monitoring is an indi-

vidual's capacity to be aware of his or her behavior, adapt to diverse social contexts, and modify his or her behavior according to those contexts. In investment decision making, people with high self-monitoring abilities often demonstrate an increased ability to navigate the dynamic and evolving terrain of financial markets effectively. Adaptability is considered a significant advantage of self-monitoring in the context of investment decision making (Dumohar, 2022; Rahman & Gan, 2020). Investors with a high level of self-monitoring ability show a greater tendency to adjust their strategies and portfolios to consider developments in market conditions and emerging prospects. They have a high level of proficiency in recognizing patterns, evaluating prevailing attitudes in the market, and exercising rapid judgment. The capacity to maintain adaptability and responsiveness has the potential to increase the effectiveness of portfolio management and generate higher returns.

Additionally, people who self-monitor demonstrate a higher ability to regulate their emotions effectively and self-control in making impulsive judgments motivated by fear or greed. Individuals can uphold a rational and objective viewpoint, even when faced with demanding circumstances in the marketplace. Emotional resilience can protect against impulsive investment decisions influenced by emotions, which often result in financial losses (Dumohar, 2022). In short, self-monitoring practices can benefit investment decision-making through adaptability, emotional intelligence, and the capacity to make sensible and informed choices in the context of ongoing development the financial landscape.

H₄: Self-monitoring has a beneficial impact on investment decisions

The phenomenon of herding behavior, which requires individuals to conform to group actions and make investment choices depending on the behavior of others, can be influenced by the intensity of anger attributes. Although herding behavior is generally

associated with groupthink and irrational decision-making, a higher tendency toward irascibility could produce favorable outcomes in investment decision-making within this framework (Altaf & Jan, 2023a; Batmunkh et al., 2020). Individuals with a high propensity toward anger may show reduced susceptibility to conforming to a group mentality.

Furthermore, the presence of anger characteristics can cause individuals to take the opposite attitude when it is deemed necessary. Individuals with high levels of characteristic anger may be more motivated to deviate from common attitudes influenced by fear or greed and to make decisions based on their research and analysis. Applying a contrarian approach has the potential to produce favorable financial outcomes when most investors make suboptimal choices. However, achieving a harmonious balance is very important, as excessive manifestations of anger can result in impulsive or overly aggressive choices in the investment field. Because of that, it is important to recognize that anger can increase an individual's capacity to resist herding behavior (Yousaf & Yarovaya, 2022). However, it is important to realize that these attributes must be accompanied by a careful investment plan and studied extensively to optimize their beneficial impact on investment decision-making. H_{5a}: Herding strengthens the influence of trait anger on investment decisions.

Herding behavior requires individuals to align their actions and decisions with collective actions and decisions in investment markets. It can have paradoxical effects due to the influence of trait anxiety. Although anxiety is generally associated with caution and risk aversion, higher levels of trait anxiety can provide surprisingly good results in investing decision-making within a framework of herding behavior. Individuals with high levels of trait anxiety often demonstrate a heightened perception of potential danger and a methodical approach to the decision-making process.

When considering investment opportunities, those with a high sensitivity to risk tend to show higher accuracy in making investment decisions (Dumohar, 2022). Individuals with these characteristics may show a reduced tendency to conform uncritically to popular opinions or trends, instead showing a greater tendency to analyze and evaluate market patterns and empirical information carefully. Adopting a cautious approach can help individuals avoid impulsive decision-making and exercise greater discretion in their investment choices. Instead, they indicate a greater tendency to analyze and evaluate market patterns and empirical information carefully. Adopting a cautious approach can help individuals avoid impulsive decision-making and exercise greater discretion in their investment choices. Instead, they indicate a greater tendency to analyze and evaluate market patterns and empirical information carefully. Adopting a cautious approach can help individuals avoid impulsive decision-making and exercise greater discretion in their investment choices.

Additionally, the presence of trait anxiety can contribute to the development of a critical mindset towards existing market emotions. Individuals with this tendency may exhibit reduced susceptibility to the influence of irrational exuberance or fear-induced market panic, allowing them to engage in more rational decision-making processes. The tendency to research existing financial trends can give rise to contrarian strategies, which can sometimes provide profitable results when the majority makes unfavorable decisions. However, maintaining balance is important, as excessive anxiety can lead to over-ruminating, displaying indecision, and overlooking potential opportunities (Jain et al., 2020; Rahman & Gan, 2020). Because of that, trait anxiety can potentially increase an individual's capacity to resist engaging in herding behavior. However, to fully exploit the beneficial impact of trait anxiety on investment decision-making, it is critical to supplement

it with thorough research and a carefully designed investment strategy.

H_{5b}: Herding strengthens the influence of trait anxiety on investment decisions.

The phenomenon of herding behavior is where individuals tend to adapt to the actions of others and make investment decisions. Overconfidence is usually associated with an individual's tendency to overestimate their talents and engage in dangerous decision-making. However, in specific grazing situations, this can positively impact investment decisions. Individuals who exhibit a degree of overconfidence have unwavering confidence in their investment skills (Altaf & Jan, 2023b, 2023a). The presence of self-confidence in individuals can result in their tendency to make bold financial decisions that others might avoid due to feelings of uncertainty or fear. In a herding scenario, it was observed that individuals who demonstrated high levels of self-confidence tended to take on leadership roles, perhaps influencing others to emulate their actions. In some cases, this phenomenon can give rise to a self-fulfilling prophecy when an individual's overconfident behavior leads to beneficial consequences, although usually in the immediate context.

Additionally, it has been observed that investors who exhibit overconfidence tend to exhibit reduced susceptibility to emotional contagion, a phenomenon commonly associated with herding tendencies. Individuals' self-confidence allows them to remain calm during periods of market volatility, thereby reducing the likelihood of impulsive decisions driven by fear or panic. However, it is important to recognize that overconfidence can also result in a tendency to take unnecessary risks and a lack of proper evaluation of potential negative consequences (Metawa et al., 2019). Individuals who display overconfidence may need to consider important facts or understand the intricacies of financial markets, which ultimately leads to significant financial losses.

H_{5c}: Herding strengthens the influence of overconfidence on investment decisions.

Herding behavior, which requires individuals to align their actions and decisions with collective actions and decisions in the investment market, may be positively influenced by good self-monitoring skills. Self-monitoring is a cognitive process that involves individuals' capacity to adapt effectively to varying social contexts and change their behavior. This ability to self-monitor can provide beneficial results in the area of investment decision-making, particularly in the context of herding behavior. Investors who have a high degree of self-monitoring ability demonstrate proficiency in interpreting market sentiment and assessing the actions of their counterparties. Increasing levels of social awareness empower individuals to make informed choices, considering not only their analysis but also the collective general opinion (Mai et al., 2022). Individuals who have high self-monitoring abilities tend to adapt to current market trends in herding scenarios and exhibit reasonable behavior. However, they also showed a willingness to leave the collective when circumstances required such action.

Additionally, individuals who engage in self-monitoring demonstrate higher levels of emotional resilience and reduced susceptibility to emotional contagion commonly associated with herding behavior. An individual's capacity to remain calm can deter hasty or fear-driven decision-making during market volatility. However, it is important to highlight that while self-monitoring can improve decision-making in herding scenarios, combining it with a comprehensive examination of market fundamentals and a comprehensive risk management strategy is important (Dumohar, 2022). Engaging in uncritical adjustments, even among those with strong self-monitoring abilities, can result in unfavorable investment results and fail to fulfill the fundamental variables that shape market patterns thoroughly. Therefore, integrating self-monitoring with a compre-

hensive investment strategy will result in optimal effectiveness.

H_{5d}: Herding strengthens the influence of self-monitoring on investment decisions.

The concept of a model refers to a simple representation or framework used to understand (figure 1).

METHOD

This study employs a quantitative research technique focused on hypothesis testing, the collection of measurable data, and the derivation of broadly applicable conclusions. Quantitative methods in research yield more objective, measurable outcomes, rendering the conclusions more credible. Additionally, statistical analysis methods are employed in quantitative research to examine the relationship between variables. This study was carried out in Indonesia. This research examines the variables of investment decisions, investor behavior influenced by external influences (herding), and investor behavior shaped by internal characteristics (trait anger, anxiety, overconfidence, and self-monitoring).

A collection of interview questions is provided in the questions table. The Structural Equation Model (SEM) analysis technique will be used to describe the relationship between variables, both dependent and independent variables, and control factors. Complex relationships between variables are tested and verified using a statistical technique

known as structural equation modeling (SEM). With SEM, which combines factor analysis with multiple regression analysis, it is possible to simultaneously assess latent (unobserved) variables and observed (measured) variables. SEM makes it easier to understand the underlying structure or cause-effect relationships between variables. The data processing software is called Smart-PLS. One of them uses a Likert scale (5 Likert scale) for the variable measurement level. Using a latent perspective model, this research model analyzes the interrelationship of various factors and indicators. The data processing software is called Smart-PLS. This research model analyzes the interrelationship of various factors and indicators using a latent perspective model.

RESULTS

Statistic test

Composite reliability and Cronbach's alpha can be used to determine test reliability. The limit value is 0.07. The experimental results can be seen in Table 1. Table 1 shows that Cronbach's alpha for all cases has the highest value of 0.738, namely for the Investment Decision case. In contrast, the compositional residual is centered on self-monitoring with a coefficient of 0.711. The data shows that the research has been verified as reliable because the minimum reliability score is 0.70 for each of the five contrasts. On the other hand, based on the convergent validity test shows good results because the AVE value is less than 0.5.

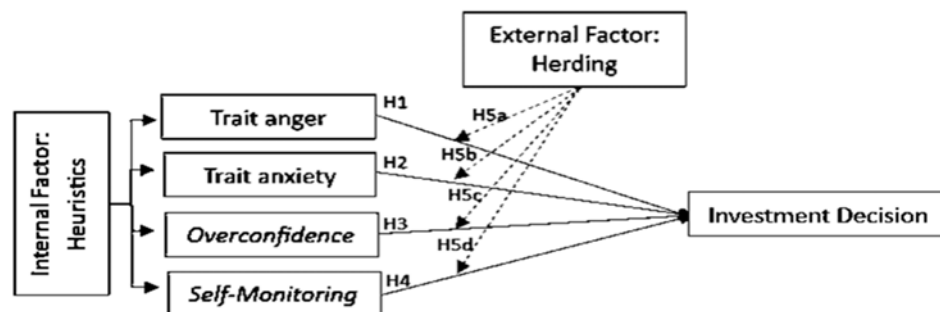


Figure 1
Research Framework

Source: data is processed, 2024

Table 1
Reliability Test (AVE > 0.5; CR > 0.7)

| Variable | Cronbach's Alpha | rho_A | Composite Reliability | Average Variance Extracted (AVE) |
|----------------------|------------------|-------|-----------------------|----------------------------------|
| Investation decision | 0,738 | 0,721 | 0,760 | 0,516 |
| Herding | 0,823 | 0,812 | 0,771 | 0,628 |
| Moderating Effects 4 | 1,000 | 1,000 | 1,000 | 1,000 |
| Moderating Effects 3 | 1,000 | 1,000 | 1,000 | 1,000 |
| Moderating Effects 2 | 1,000 | 1,000 | 1,000 | 1,000 |
| Moderating Effects 1 | 1,000 | 1,000 | 1,000 | 1,000 |
| Trait of Anger | 0,797 | 0,804 | 0,761 | 0,518 |
| Trait of Anxiety | 0,759 | 0,779 | 0,780 | 0,644 |
| Overconfidence | 0,809 | 0,818 | 0,738 | 0,537 |
| Self Monitoring | 0,725 | 0,711 | 0,768 | 0,524 |

Source: data is processed, 2024.

Apart from using AVE, table 2 reports the outer loading parameters used to test convergent validity. Table 2 shows that the research has achieved convergent validity based on the outer loading parameters. The values are greater than 0.7 for each constituent part. Next, the results of external

loading are presented in the form of a curve starting from figure 2.

Table 3 shows the existence of an inner model (structural model) to test the hypothesis. This is supported by the R-square, which indicates reliability. A higher R-square value indicates a model more suitable for research use.

Table 2
Convergent Validity (Loading Factor Value > 0.70) OUTER LOADING

| Variable | Investation decision | Herding | Trait of Anger | Trait of Anxiety | Overconfident | Self Monitoring |
|----------|----------------------|---------|----------------|------------------|---------------|-----------------|
| ID2 | 0,791 | | | | | |
| ID3 | 0,794 | | | | | |
| HG1 | | 0,812 | | | | |
| HG2 | | 0,781 | | | | |
| HG4 | | 0,651 | | | | |
| TAR4 | | | 0,748 | | | |
| TAR8 | | | 0,818 | | | |
| TAR9 | | | 0,782 | | | |
| TAT1 | | | | 0,795 | | |
| TAT2 | | | | 0,897 | | |
| OC2 | | | | | 0,762 | |
| OC4 | | | | | 0,736 | |
| OC5 | | | | | 0,788 | |
| SM5 | | | | | | 0,704 |
| SM6 | | | | | | 0,709 |
| SM10 | | | | | | 0,758 |

Source: data is processed, 2024.

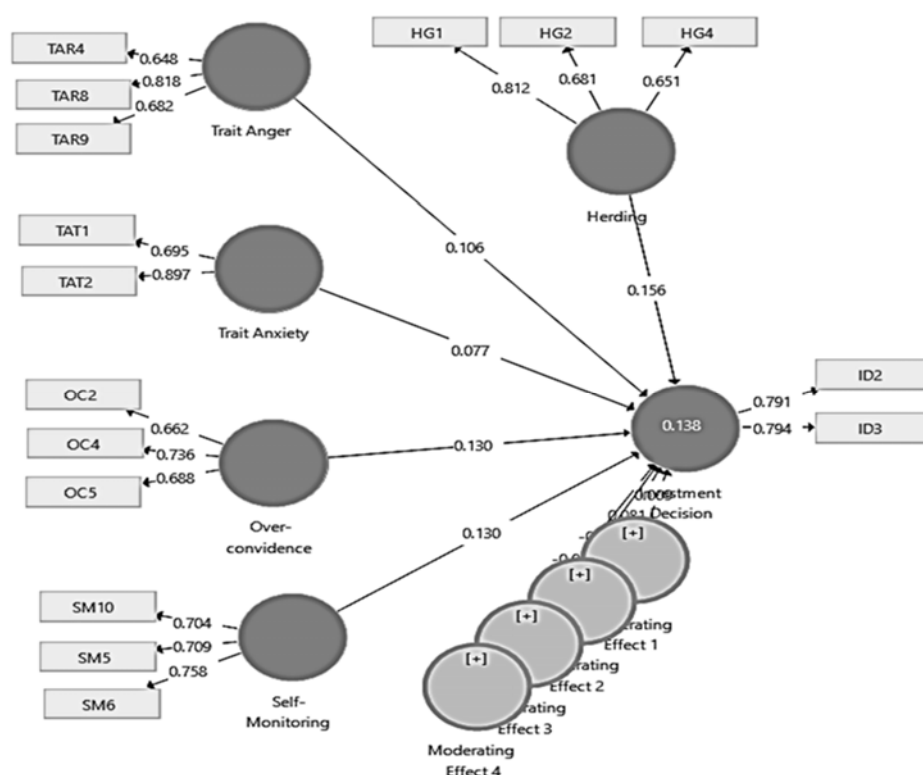


Figure 2
Convergent Validity (Outer Loading)

Source: data is processed, 2024.

Table 3
R-Square (0.75 strong; 0.50 medium; 0.25 weak)

| Variable | R square | Adjusted R Square |
|----------------------|----------|-------------------|
| Investation decision | 0,438 | 0,411 |
| Herding | 0,455 | 0,450 |

Source: data is processed, 2024.

Next, the p-value is used as a parameter to determine whether the hypothesis is accepted or rejected. Based on table 4, all hypotheses in this study are accepted because the p-value is below the 5% threshold (0.05).

The hypothesis proposed is that Trait Anger, Trait Anxiety, Overconfidence, and Self-monitoring significantly influence herding. Herding actions have a significant positive influence on investment decision making. The proven t-synthetic value exceeds 1.94 with a p-value of less than 0.05, so the hypothesis is accepted.

DISCUSSION

H₁: Trait anger has a beneficial impact on investment decisions.

There is evidence that anger has the potential to have a beneficial influence on the in-vestment decision making process. Although anger is generally considered a detrimental emotion, those with a greater tendency toward it may strategically use it to advantage financially. Anger has been identified as a significant motivator of decisiveness and a propensity to take measured risks, which are important attributes for achieving success in the investment field (Dumohar, 2022; Rahman & Gan, 2020). If used productively, the characteristic of anger has the potential to be a driving force that drives investors to take aggressive and decisive action.

Table 4
P Value Significance Test

| Variable | Original Sample (O) | Sample Mean (L) | Standard Deviation (STDEV) | T statistics (O/STDEV) | P value |
|------------------------------------|------------------------|--------------------|-------------------------------|-------------------------------|------------|
| Moderation Effect_ -> Herding | 0,074 | 0,062 | 0,037 | 2,011 | 0,046 |
| Trait of Anger -> Herding | 0,295 | 0,311 | 0,074 | 3,963 | 0,000 |
| Trait of Anxiety -> Herding | 0,641 | 0,622 | 0,074 | 8,718 | 0,000 |
| Overconfidence -> Herding | 0,391 | 0,397 | 0,061 | 3,128 | 0,012 |
| Self-Monitoring -> Shepherding | 0,231 | 0,332 | 0,039 | 4,482 | 0,002 |
| Herding -> Investment Decisions | 0,691 | 0,698 | 0,037 | 18,873 | 0,000 |

Source: data is processed, 2024.

Individuals take advantage of opportunities and demonstrate quick decision-making abilities, especially in a dynamic and rapidly developing market environment. These characteristics facilitate quick responses to market changes and setbacks, potentially resulting in profitable outcomes.

In addition, anger characteristics can contribute to developing a mindset characterized by tenacity and endurance, which has significant value in the context of investment decision-making. Investors who exhibit these characteristics may show less tendency to be discouraged by financial setbacks or losses, as their motivation is rooted in a determination to prove their abilities and overcome obstacles. Having resilience is a very advantageous attribute when maneuvering through the fluctuations and uncertainties inherent in financial markets. However, it is important to recognize that the positive impact of anger depends on effective regulation and control. Uncontrolled anger can encourage impulsive and irrational decision-making, resulting in financial losses. Therefore, it is recommended for individuals who exhibit anger to focus on channeling and directing this emotional state effectively and constructively. The result can be achieved by integrating careful research, prudent risk

management, and a carefully designed investment strategy, optimizing returns.

H₂: Trait anxiety has a beneficial impact on investment decisions.

At first, it may appear that trait anxiety, characterized by constant worry and fear, may not support effective investment decision making. However, it is important to realize that certain levels of trait anxiety may positively influence investment decision-making. Individuals exhibiting moderate trait anxiety tend to be more cautious and thorough when engaging in financial planning and implementing investment strategies.

An increased level of alertness has proven beneficial in the context of financial investments. Individuals with high levels of trait anxiety tend to show greater caution in their approach to conducting research, demonstrating careful evaluation of potential dangers and a tendency to make decisions carefully. Investors often exhibit higher scrutiny when evaluating investment opportunities, resulting in a more cautious and risk-averse attitude (Dumohar, 2022; Rahman & Gan, 2020). This method can potentially yield significant advantages in terms of capital preservation during periods

of market decline and loss mitigation. Additionally, trait anxiety has been observed to facilitate the development of emotional intelligence among investors potentially. Individuals with this tendency demonstrate a heightened sensitivity to their emotional states and an increased ability to deal with stress caused by worry effectively. The cultivation of self-awareness has the potential to be a safeguard against impulsive decision-making influenced by fear, thereby facilitating the maintenance of a rational and objective viewpoint during periods of market volatility. In short, excessive anxiety levels can hurt the investment decision-making process, but moderate levels of trait anxiety can have a positive influence. The level has the potential to increase attention levels. Cultivating self-awareness has the potential to be a safeguard against impulsive decision-making influenced by fear, thus facilitating the maintenance of a rational and objective viewpoint during periods of market volatility. In short, excessive anxiety levels can negatively impact the investment decision-making process, but moderate levels of trait anxiety can have a positive influence. It has the potential to increase attention levels. The cultivation of self-awareness has the potential to be a safeguard against impulsive decision-making influenced by fear, thereby facilitating the maintenance of a rational and objective viewpoint during periods of market volatility. In short, excessive anxiety levels can negatively impact the investment decision-making process, but moderate levels of trait anxiety can have a positive influence. It has the potential to increase attention levels.

H₃: Overconfidence has a beneficial impact on investment decisions.

Overconfidence, sometimes defined as excessive confidence in one's abilities and judgment, can have beneficial and detrimental influences on the investment decision-making process. Under certain circumstances, overconfidence may be advantageous in the financial field. One of the beneficial

elements associated with overconfidence in financial decision-making is the tendency to engage in strategic risk-taking. Overconfident investors may show a greater tendency to investigate non-traditional investment options and engage in markets that others perceive as highly unpredictable. The tendency to step out of one's comfort zone can sometimes produce great benefits,

In addition, overconfident people often have a high level of certainty when making decisions. The contagious nature of trust can engender trust among fellow investors, creating a self-fulfilling prophecy where their decisive actions benefit the market. It can provide important benefits when individuals align with favorable financial trends. However, it is important to realize that overconfidence often has bad consequences. Potential impacts of this behavior include an increased tendency to engage in high-risk activities, a lack of consideration of differing points of view, and a tendency to ignore indicators of potential harm. Investors who display excessive confidence may ignore important facts and make impulsive decisions, exposing them to significant financial losses. In short, it is important to balance overconfidence and skepticism in financial decision-making. While overconfidence can foster calculated risks and breed trust, it is important to supplement it with a comprehensive study to mitigate weaknesses. An effective investment decision-making process requires implementing a nuanced approach that strategically leverages the advantages of trust while mitigating the risks associated with impulsive and irresponsible actions (Chen et al., 2007; Mishra & Matilda, 2015; ul Abdin et al., 2022). It is very important to supplement it with a comprehensive study to mitigate any deficiencies. An effective investment decision-making process requires implementing a nuanced approach that strategically leverages the advantages of trust while mitigating the risks associated with impulsive and irresponsible actions. It is very important to supplement it with a compre-

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H₄: Self-monitoring has a beneficial impact on investment decision.

The capacity for self-monitoring, which includes the ability to flexibly adapt to diverse social contexts and change one's behavior, has been shown to influence the investment decision-making process favorably. In financial markets, people with strong self-monitoring abilities are well-equipped to thrive thanks to many significant advantages. First, people who engage in self-monitoring demonstrate a heightened sensitivity to market dynamics and social cues. They have expertise in analyzing market mood and identifying changes in investor behavior.

Additionally, people who self-monitor tend to demonstrate emotional resilience, a characteristic that is especially advantageous in the dynamic world of investing. Individuals have the ability to remain calm during times of market volatility, thereby avoiding impulsive or fear-based decisions. The presence of emotional stability allows individuals to adhere to their investment strategies and refrain from succumbing to

the weaknesses associated with emotional trading. Those who engage in self-monitoring tend to show a higher tendency to actively seek out a variety of information and perspectives due to their ability to adapt and adjust their behavior in various social interactions. These characteristics can lead to a holistic understanding of the market and a more holistic approach to investment decision-making. In general, self-monitoring practices have the potential to positively impact the investment decision-making process, as they facilitate the development of adaptability, emotional resilience, and a full understanding of market dynamics (Dumohar, 2022; Moudud-UI-Huq et al., 2021; Yufei et al., 2022; Zhou et al., 2018). However, this approach needs to be complemented by extensive studies and a carefully planned investment strategy to optimize its benefits and ensure sustainable prosperity in a complex investment field. Emotional resilience fully understands market dynamics. However, this approach needs to be complemented by extensive studies and carefully planned investment strategies to optimize its benefits and ensure sustainable prosperity in a complex investment field. Emotional resilience fully influences market dynamics. However, the approach needs to be complemented by extensive studies and a carefully planned investment strategy to optimize its benefits and ensure sustainable prosperity in a complex investment field.

H_{5a}: Herding strengthens the influence of trait anger on investment decisions

The phenomenon of herding behavior, which is characterized by an individual's tendency to conform to the actions of the majority in determining investment choices, can be influenced by the presence of anger, which results in unexpected improvements in investment decision-making. The presence of anger, which is usually associated with intense emotional reactions, may seem paradoxical in this particular situation. However, it can really have a beneficial impact.

Individuals high in anger often display increased levels of assertiveness and determination. The increased emotional intensity experienced by individuals may motivate them to make investment decisions with a strong sense of certainty and determination, especially in situations where the assessment conflicts with general market opinion. Individuals who exhibit herding behavior are generally influenced by excessive enthusiasm or panic triggered by fear (Alexakis et al., 2023; Batmunkh et al., 2020). However, it can be seen that certain individuals are less susceptible to these influences.

Then, the use of anger characteristics can be used as a means to enforce discipline in volatile market conditions. The presence of a well-considered investment strategy can serve as a motivating factor for an individual to adhere to it despite the impulsive reactions displayed by his peers. The quality of grit can contribute to improved risk management and the prevention of impulsive responses that can result in financial loss. However, maintaining balance is important, as excessive manifestations of anger can potentially result in impulsive or overly aggressive investment choices. Therefore,

H_{5b}: Herding strengthens the influence of trait anxiety on investment decisions

The phenomenon of herding behavior, which requires individuals to make investment decisions based on the actions of others without critical evaluation, may show interesting and potentially profitable outcomes if driven by trait anxiety. The trait of anxiety is often associated with feelings of fear and a tendency to avoid taking risks. However, it should be noted that trait anxiety can also have a positive impact on investment decision-making, particularly in the context of herding behavior. Individuals with high levels of trait anxiety often display a heightened sense of caution and concern for potential threats. In the investment field, individuals may exhibit a higher level of caution, which encourages them to engage in careful examination of market patterns and

conduct comprehensive investigations before making decisions. The careful methodology used by individuals can lead to the development of a more thoughtful and deliberate investment strategy approach.

Moreover, the presence of trait anxiety may contribute to the development of a certain level of skepticism toward existing market emotions (Yousaf & Yarovaya, 2022). These people show reduced susceptibility to the influence of excessive excitement or fear-driven panic, as their increased anxiety prompts them to evaluate the consensus opinion of the general public critically. Sometimes, individuals may take an opposing stance, deviating from the general trend, potentially providing a more favorable outcome when the majority makes poor decisions. However, it is important to strike a balance, as excessive levels of anxiety can result in excessive rumination and indecision, potentially causing individuals to ignore the prospects of profitable investments. Therefore, the presence of trait anxiety has the potential to increase an individual's capacity to resist the tendency to conform to group behavior and instead make independent, well-informed choices. However, it is important to complement these characteristics with a carefully formulated investment plan to optimize profitable outcomes and minimize potential losses.

H_{5c}: Herding strengthens the influence of overconfidence on investment decisions.

The phenomenon of herding behavior in investment decision-making, which is often characterized by individuals engaging in groupthink and lacking independent thinking, can have an unexpectedly beneficial impact when combined with overconfidence. The phenomenon of overconfidence is generally associated with an individual's tendency to overestimate their abilities, which can result in the adoption of riskier decision-making strategies. However, in the specific context of herding behavior, overconfidence can paradoxically produce beneficial outcomes. Investors who exhibit over-

confidence often have unwavering confidence in their judgment, which drives them to make bold investment decisions. In the context of grazing, the strong beliefs and self-confidence displayed by certain individuals can exert a powerful influence on others, leading them to imitate similar behavior. The presence of leadership in a group may have the potential to produce a self-fulfilling prophecy, where their assertive behavior has a positive influence on the market and produces profitable results, especially in the near term (Altaf & Jan, 2023a, 2023b).

So, those who display overconfidence often demonstrate emotional resilience, a quality that is especially important when faced with market volatility. Individuals are less susceptible to being influenced by the emotional contagion that is characteristic of herding behavior. Individuals' self-confidence allows them to maintain composure during market changes, thereby avoiding impulsive decision-making motivated by fear or panic. However, it is important to recognize that excessive levels of self-confidence can result in an increased tendency to take risks and a lack of consideration of important information and different perspectives. Failure to recognize potential weaknesses can have detrimental consequences, resulting in large long-term costs. Therefore, it is important to recognize that overconfidence has the potential to increase an individual's impact in scenarios involving herding behavior. However, it is important to exercise caution by conducting a comprehensive risk evaluation and implementing a carefully designed investment strategy to ensure long-term prosperity.

H_{5d}: Herding strengthens the influence of self-monitoring on investment decisions.

The phenomenon of herding behavior, which is characterized by an individual's tendency to imitate the actions of others in determining investment choices, can have an effective impact if combined with strong self-monitoring abilities. The capacity to self-monitor, which includes the ability to adapt

and change one's behavior in response to various social circumstances, can provide important benefits in investment decision-making.

Individuals who possess high levels of self-monitoring skills demonstrate proficiency in interpreting market sentiment and accurately assessing the actions and behavior of others. Investors can identify changes in their moods and adjust their decision-making accordingly. Increasing levels of social awareness empower individuals to make more informed investment decisions, as they not only consider their analysis but also the prevailing sentiment in the market. In addition, people who engage in self-monitoring behavior demonstrate a remarkable capacity for emotional resilience, a highly advantageous trait in the field of investment activity (Dumohar, 2022; Nguyen et al., 2023).

In addition, people who self-monitor show a greater tendency to seek out multiple sources of information and perspectives actively. Individuals who have the ability to adapt in dealing with others have the potential to have a thorough understanding of market dynamics and adopt a more holistic approach to financial decision-making. In summary, self-monitoring practices have been shown to improve investment decision-making, particularly in the context of herding behavior. The attributes mentioned above, including adaptability, emotional resilience, and a comprehensive understanding of market dynamics, have the potential to improve the decision-making process in investments by providing individuals with greater knowledge and a greater chance of success.

CONCLUSION

Empirical evidence indicates that traits associated with rage may positively influence investing decision-making processes. Upon initial assessment, it may be perceived that anxiety, a psychological condition marked by enduring worry and apprehension, is not conducive to sound investment decision-making. The notion of overconfidence de-

notes an inflated assessment of one's capabilities and judgment, which can provide both advantageous and detrimental effects on the investing decision-making process. Self-monitoring, encompassing the capacity to modify one's behavior across many social contexts, has demonstrated a beneficial effect on decision-making in investment scenarios. The manifestation of herding behavior, defined as an individual's inclination to conform to the majority's actions in investing decisions, may be affected by the existence of angry traits, resulting in an unforeseen escalation in investment decision-making. The manifestation of herding behavior, defined by individuals making financial decisions without critical analysis based on the actions of others, may provide intriguing and even lucrative results when affected by trait anxiety. The occurrence of herding behavior, which refers to an individual's tendency to imitate the investment choices of others, can be favorably influenced when coupled with strong self-monitoring skills. The occurrence of herding behavior in investment decision-making is often characterized by individuals exhibiting groupthink and a lack of independent thought. However, it can paradoxically produce positive outcomes when combined with overconfidence. The consequences of this research can be very important in helping investors mitigate irrational risks and produce more objective findings through comprehensive investigations. This tendency may lead to inefficient market transactions, asset bubbles, and excessive volatility. This study arose as a response to the traditional perception of the foreign exchange market, which was predicated on the assumption of rationality among traders. This study examines the impact of emotional factors, risk perception, and cognitive biases on investment decisions, drawing on insights into human nature that parallel those of animals. can, ironically, yield beneficial outcomes when coupled with overconfidence. The implications of this research may significantly aid investors in alleviating irrational risks and generating more objec-

tive results through thorough analyses. This tendency may lead to inefficient market transactions, asset bubbles, and excessive volatility. This study arose as a response to the traditional perception of the foreign exchange market, which was predicated on the assumption of rationality among traders. This study examines the impact of emotional factors, risk perception, and cognitive biases on investment decisions, drawing on insights into human nature that parallel those of animals. might paradoxically yield beneficial outcomes when coupled with overconfidence. The consequences of this research can be very important in helping investors mitigate irrational risks and produce more objective findings through comprehensive investigations. This behavior has the potential to result in inefficient market transactions, asset bubbles, and excessive volatility. This study also emerged as a reaction to the conventional understanding of the foreign exchange market, which was based on the notion of rationality among dealers. This study explores the influence of emotional elements, risk perception, and cognitive biases on investment decisions by utilizing knowledge about human nature, which shows similarities with animals. The consequences of this research can be very important in helping investors mitigate irrational risks and produce more objective findings through comprehensive investigations. This behavior has the potential to result in inefficient market transactions, asset bubbles, and excessive volatility. This study also emerged as a reaction to the conventional understanding of the foreign exchange market, which was based on the notion of rationality among dealers. This study explores the influence of emotional elements, risk perception, and cognitive biases on investment decisions, drawing on knowledge about human nature, which shows similarities to animals. The consequences of this research can be very important in helping investors mitigate irrational risks and produce more objective findings through comprehensive investigations. This

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