

Emotional intelligence and stock trading decisions: Indonesia's millennial generation in the COVID-19 era



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ABSTRACT

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This study explores the relationship between emotional intelligence traits and stock trading choices made by young millennial (Generation Y) investors in Indonesia, particularly during the COVID-19 pandemic. It also investigates whether behavioral biases, such as overconfidence and the herding effect, can mediate this relationship. This study uses exogenous variables (emotional intelligence trait), endogenous variables (stock trading decisions), and mediating variables (overconfidence and herding effect) to conduct fundamental research. A sample of 500 young investors in Indonesia from the millennial age was given a questionnaire with 5-point Likert scale response options. A Sobel calculator is used for mediation testing, and a structural equation model (SEM) is used for hypothesis testing. The study's conclusions show that there is no connection between emotional intelligence and stock trading choices. The findings also indicate that, in contrast to the herding effect, overconfidence has a significantly favorable impact on stock trading judgments. Tests of mediation reveal that the overconfidence behavior bias mediates the link between the emotional quotient and stock trading choices to some extent. The association between emotional intelligence and stock trading decisions was found to be independent of the herding effect. Young millennial investors can deliberately reduce the impact of these biases on their decision-making process, improve their self-awareness, and make more logical decisions. This could result in more knowledgeable and successful investment plans during difficult times, such as the COVID-19 pandemic.

Contribution/Originality: This research contributes to the existing literature on investment decisions by providing new insights that have not been widely studied in behavioral finance literature, namely insights related to stock trading decisions, emotional intelligence, and the behavioral biases of overconfidence and the herding effect in millennial generation investors during the COVID-19 pandemic. The originality of this research is the use of millennial generation investors in Indonesia as the focus of the research.

1. INTRODUCTION

The COVID-19 pandemic brought about an extraordinary increase of 192% in investors in Indonesia's capital market from 2020 to 2021. When viewed from 2018 to August 2022, the number of investors experienced an extraordinary increase of up to 413% in stock investors, especially retail investors, with an increase of 103.21%. The actions of retail investors are considered to be the driving force behind the surge in stock transactions. Stock

transactions throughout January 2021 turned out to be very lively with various dramas, starting from the congregational auto reject trend (ART) to the emergence of stock influencers. Bloomberg data shows that there was the highest jump in history in share transactions of Indonesian rupiah (IDR) 849.12 trillion, an increase of 179.57% compared to transactions during January 2020, which reached IDR 303.72 trillion (Utami, 2021).

The increase in retail investor stock transactions shows the characteristic that retail investors tend to make short-term transactions. Retail investors are very much affected by the sentiment that descends on the market and are much more reactive than institutional investors. Retail investors immediately react, both at the macro level and individually, when there is news related to certain stocks. The presence of stock influencers also triggers a reactive attitude among retail investors. Especially in the current era, social media has become a source of information related to stock exchanges and stocks, increasingly competing with official information from exchanges or securities authorities. Retail investors are more responsive when influencers write to one issuer and respond immediately, in contrast to institutional investors, even to the point of using hot funds (reckless capital from loans) for stock trading. This gave rise to the phenomena of margin calls and forced sales.

Margin calls indicate that millennial generation retail investors are not always rational in making stock trading decisions, and the COVID-19 pandemic significantly increased uncertainty in the financial markets. The excessive price fluctuations and volatility in stock indices cannot be adequately explained solely by traditional finance theories (Aslam et al., 2020; Zahera & Bansal, 2018). Irrational behavior arises in uncertain situations, suggesting that people do not always follow logic or make decisions systematically (Statman, Thorley, & Vorkink, 2006). This shows that investors' investment decisions are sometimes not in line with classical financial theory.

According to traditional finance theory, people make logical judgments about their investments after carefully weighing all the facts at their disposal (Mittal, 2022). However, investors do not act logically when making judgments, according to numerous studies (Kasoga, 2021; Rasool & Ullah, 2020). Psychological insights are beginning to be utilized to explain why investors act irrationally. The two systems that humans employ in decision making can be explained using the Dual Process Theory in social psychology, which shows that the two factors that influence investment decisions are intuitive (emotions) and cognitive (knowledge) (De Neys, 2018).

Emotions are factors that influence investment decisions. When making a decision, the emotional state must be stable so that the mind can think clearly and avoid regret. It is crucial to manage emotions, ensuring they remain stable and do not overpower the decision-making process. Emotional intelligence becomes essential as it involves the capability to control emotions effectively and utilize them to enhance cognitive abilities. This involves recognizing, handling, comprehending, and appropriately reflecting on emotions (Istiqomariyah, 2020; Salehi & Mohammadi, 2017). Emotional intelligence (EI) involves understanding, exploring, and demonstrating emotions that drive actions and decisions (Chambers & Simon, 2022; Pervez, 2014). The EI of an investor holds significant importance when it comes to financial decision making. Enhancing one's EI positively impacts their overall personality, leading to improved management skills and the ability to make sound decisions (Afolabi, Awosola, & Omole, 2010; Gumora & Arsenio, 2002; Pervez, 2014).

Research indicates that EI has a beneficial impact on the quality of investment decisions (Raheja & Dhiman, 2020) and demonstrates a favorable correlation between emotional intelligence and performance (Garkaz & Mehrvarzi, 2012). Hess and Bacigalupo (2011) also found that emotional intelligence can improve individual and group decisions. However, Ezadinea, Fathi, and Salami (2011) found that emotional intelligence does not affect investment decision making, as is the case with Raheja and Dhiman (2020), who also show that emotional intelligence does not always affect investment decisions.

Investors consider multiple factors when making investment decisions. These factors may include various investment strategies, the frequency and duration of investments, investment objectives, as well as the influencing elements affecting their financial judgments. Perku's bias becomes the most crucial aspect (Raheja & Dhiman, 2019). When the situation is unknown, such as during the Covid-19 outbreak, heuristics or biases are likely to

emerge. Investors use all available knowledge and data to make the best selections possible. However, psychological factors can occasionally have an influence. When investors make financial decisions, psychological influences, specifically prejudice, play a role.

Arora and Kumari (2020) found that emotional intelligence has a significant negative effect on behavioral biases, which can influence risk perception and ultimately impact investment decisions. Behavioral biases can be classified into cognitive biases, which pertain to how individuals think, and emotional biases, which relate to how individuals feel. Human decision making often relies on past experiences and intuition rather than gathering all relevant information with the intention of improving the quality of decisions (Kasoga, 2021). Investor decisions are influenced by information, past performance, experience, and expectations for the future. Consequently, individual investors often display behavioral biases during their trading activities, leading to trading errors or mistakes (Zahera & Bansal, 2018).

Referring to Kustodian Sentral Efek Indonesia (KSEI) data, the extraordinary increase in stock investors is dominated by investors from the millennial generation (those born between 1980 and 1996) who are the driving force behind the Indonesian capital market. The profiles of Indonesia's millennial generation indicate that the country is entering a period characterized by demographic bonuses (Budiati et al., 2018). Because young investors play a significant role in the capital market, more reasonable investing decisions will propel the market forward. Characteristics of the millennial generation (Budiati et al., 2018) are profit-oriented, goal-oriented, and achievement-oriented, and they prefer making short-term investments, e.g., trading.

Based on this explanation, this research has flaws that need to be tested, and it is an update that will provide additional understanding of the effect of emotional intelligence on stock trading decisions, specifically for millennial investors in Indonesia. Furthermore, this study investigates behavioral bias as a moderating element between emotional intelligence and trading decisions.

This research will help investors to understand and manage the emotional intelligence trait and the overconfidence and herding effects of behavioral biases. Both can affect investors' stock trading decisions, especially during crises such as the COVID-19 pandemic.

This paper is set out as follows: The first section is related to the background of the study, the second section provides a literature review and hypothesis development, the third section explains the material and methods used, the fourth section contains the results and discussion, and the fifth section offers conclusions.

2. LITERATURE REVIEW

2.1. Financial Behavior

Various parties, particularly academics, started acknowledging this financial behavior after Slovic (1969) put forward the psychological aspects of investment and stockbrokers (Kahneman & Tversky, 1979) with the prospect theory conveying judgments under conditions of uncertainty that can produce heuristics or biases, the concept of mental accounting (Thaler, 1985), and the development of financial behavior (Shefrin, 2002).

The use of psychology in finance is typically referred to as behavioral finance (Ising & Pompian, 2006; Shefrin, 2002). Understanding how psychological processes affect people's conduct in financial circumstances is the first step in defining financial behavior. It specializes in researching people's actions in financial contexts (Nofsinger, 2016) and pays close attention to how psychology affects businesses, financial markets, and financial decisions. The two ideas provided clearly state that behavioral finance is a framework that explains how psychological elements have an impact on people's financial decisions and investment behavior.

2.2. Dual Process Theory

The Dual Process Theory (DPT) explains how human thought can appear in two different ways. Sometimes these two processes can be present in implicit (automatic or unconscious) and explicit (controlled or conscious)

forms and distinguish how humans make decisions (Frankish, 2010).

The initial foundation of this theory was put forward by William James (1842–1910), an American philosopher and psychologist, who is also known as the Father of American Psychologists and proposed the idea of "different kinds of thinking," where there are differences when humans think about making decisions. He interprets the different types by distinguishing two concepts, namely associative and true reasoning. According to James, associative thinking will appear in the minds of individuals based on past experiences, which will provide ideas of comparison and abstraction. Meanwhile, true reasoning is useful for dealing with situations that have never happened before and uses reasoning to overcome obstacles.

Some of the theories explained below are just a few of the many theories that can be found. Peter Wason and Jonathan Evans developed a dual process theory of heuristic and analytic concepts in 1974; Richard E. Petty and John Cacioppo developed the Elaboration Likelihood Model (ELM) theory in 1986; Steven Sloman developed the concept of the dual process of reasoning in 1996; Daniel Kahneman (winner of the Nobel Prize in Economics in 2002) divided the dual process into two systems, namely System 1 and System 2, in 2003; and Fritz Strack and Roland Deutsch divided the human thought process into two, namely reflective and impulsive, in 2004 (Gawronski & Creighton, 2013).

2.3. Behavioral Bias

Behavioral bias is defined in the same manner as systematic errors in judgment. Pompian (2012) refers to this bias as the catalyst for irrational financial choices due to faulty cognitive reasoning, reasoning swayed by emotions or sentiments, or a combination of both. This bias is often observed as a heuristic belief, judgment, or point of reference. Psychologists characterize bias as a cognitive shortcut or heuristic employed in information processing, often influenced by errors in memory, emotional and motivational elements, and societal influences, such as family, education, or community norms. According to psychologists, particular biases are linked to human labor identified by Maslow. Emotional biases can assist in evading pain and pursuing pleasure. Another form of bias is correlated with the brain's perception, establishment of memories, and decision-making procedures. These encompass the incapacity to execute intricate mathematical computations, such as revising probabilities, and information processing and evaluation.

Bias can be categorized into two simple forms: cognitive bias and emotional bias. Cognitive bias stems from cognitive errors in reasoning and judgment, and emotional bias relates to biases influenced by feelings or emotions that can impact one's decision-making process (Pompian, 2012). Cognitive biases are categorized into two, namely:

- 1) Persistence belief bias, which consists of cognitive dissonance or heuristics, conservatism, confirmation, representativeness, an illusion of control, and hindsight.
- 2) Information processing bias, which consists of anchoring and adjustment, mental accounting, framing, availability, self-attribution bias, outcome bias, and bias recency.

Emotional biases can make it more difficult to compare cognitive mistakes, as they stem from impulses, intuition, and emotions rather than deliberate and rational computations. These biases have the potential to result in individual and undue judgments, with the possibility of influencing an individual's financial decisions and conduct. Emotional biases encompass the fear of loss, excessive self-assurance, challenges with self-regulation, a penchant for maintaining the current state, attachment to ownership, and the avoidance of regret. Recognizing and acknowledging these biases is crucial for fostering logic and making well-informed decisions.

Emotional bias can lead to suboptimal investor decisions. Unfortunately, emotional biases are sometimes difficult to recognize during the decision-making process because they are driven by feelings rather than conscious thought.

The overconfidence bias commonly arises due to investors' desire for quick and high returns, leading them to have unwavering confidence in their beliefs. Overconfidence is a state where individuals feel overly confident about

their understanding, knowledge, and abilities (Supramono & Putlia, 2010). The bias in overconfident behavior can influence investment decisions.

In essence, overconfidence can be described as an unfounded belief in one's instinctive reasoning, judgment, and cognitive capabilities (Ising & Pompian, 2006). Psychologists have established that overconfidence leads people to overestimate their knowledge, underestimate risks, and overestimate their ability to control events. In simple terms, individuals tend to believe they are smarter and better informed than they actually are Ising and Pompian (2006). Overconfidence also relates to how well people understand their abilities and the limits of their knowledge (Shefrin, 2002). Individuals who exhibit overconfidence in their abilities tend to perceive themselves as more skilled than they truly are. Similarly, when it comes to knowledge, those who are overly confident tend to believe they possess a higher level of knowledge than they do. It's important to note that overconfidence doesn't imply that individuals are unintelligent or incompetent. Rather, it indicates that their self-perception is more favorable than their actual capabilities.

Cognitive and emotional factors and social elements can also play a role in shaping investment choices. Fityani (2015), cited in Setiawan, Atahau, and Robiyanto (2018), identified certain social factors that impact investment decisions, specifically highlighting the concept of herding. Herding is defined as the inclination of investors to emulate the investment decisions made by others. Setiyono et. al, (2013), referenced in Setiawan et al. (2018), conducted a study revealing an occurrence of 8.4% herding behavior on the Indonesia Stock Exchange (ISE), indicating a predisposition toward herding bias in investment decisions within the Indonesian stock market. Herding behavior represents an irrational tendency where investors make choices that are not based on available information or a company's fundamental value but are influenced by the actions of fellow investors or market noise.

Keynes (1936) noted that because humans are social animals, they have a basic desire to move in the same direction as their herd. It is because of this instinct that the term "herd" (a group) first occurs. Herding can also occur when a trader disregards their own convictions and puts more faith in the convictions of other traders without giving this any consideration from a psychological standpoint (Devenow & Welch, 1996). When sensible people begin acting irrationally by copying the opinions of others in their decision making, this is known as herding. Because they adhere to the judgments made by sizable groups, individual investors frequently exhibit group behavior (Kumar & Goyal, 2016). Investors that behave in a herd ignore their own personal judgment and follow the lead of other investors. They consequently trade in tandem with these other investors, entering and exiting the market together (Virigineni & Rao, 2017). Individuals who have this bias will depend on what brokers, news, and social media say. For example, individuals who follow an investment influencer's Instagram account will tend to have an irrational attraction to the stocks that the influencer is talking about. Investors should know that these posts are only based on personal experience and opinion and do not always contain factual market information. Therefore, investors should carry out further research to analyze whether the information is accurate or not based on an impartial and more objective point of view and compare it with the reality of the market. However, individuals with herding bias will soon believe what the media says and make irrational decisions against it. They rely heavily on their findings on social media rather than quantitative analysis, which will lead to making unwise investment decisions. Moreover, currently, there are lots of stock influencers on social media who have a target audience of the millennial generation, who are the current drivers of the stock market.

2.4. Emotional Intelligence Theory

Humans have different types of intelligence, including emotional intelligence, cognitive intelligence, and spiritual intelligence. Based on these three types, in modern times, it is important that every human being has emotional intelligence because it forms positive traits.

According to the trait theory put forth by British psychologist Konstantin Vasily Petrides, who is of Russian descent, emotional intelligence is a person's judgment of his emotional capabilities. A person's self-evaluation, which

can take the form of a self-report or another type of self-assessment, is related to their behavioral abilities. Adaptability, assertiveness, expression, emotions, emotional management, emotional perception, emotional regulation, impulse control, relationships, self-esteem, motivation, social awareness, stress management, empathy, happiness, and optimism are among the 15 traits listed in the description of EI measurement by Petrides, Pita, and Kokkinaki (2007). These characteristics determine a person's personality but are different from character. Measurement of emotional intelligence uses the Trait Emotional Intelligence Questionnaire (TEIQue) from Petrides and Furnham (2001) in (Petrides et al., 2007).

2.5. Traits of Emotional Intelligence

This study explores the aspects that contribute to an individual's higher emotional intelligence (EI), making the trait model theory the most suitable approach. The literature has introduced two distinct constructs of EI: a performance-based measure known as "ability EI" and a trait-based measure known as "trait EI" (Buccioli, Guerrero, & Papadovasilaki, 2020). A trait of EI is a person's perception related to their emotional abilities. How people evaluate themselves is related to their behavioral abilities in the form of a self-report or self-assessment (Petrides et al., 2007).

A trait of EI is that it's built as a combination of self-reports concerning one's emotions (Petrides et al., 2007). Petrides, et al. (2009) in Palmer, Stough, Harmer, and Gignac (2009) revealed that the EI trait questionnaire had four main dimensions and two additional dimensions. These dimensions show the main characteristics of individuals who are said to be emotionally intelligent. The measurement of EI is divided into four traits:

1. Well-being: An individual's ability to have a positive view of oneself and their achievements, being grateful, enjoying what is happening now, and maintaining a positive attitude toward the future. The well-being section comprises the following subscales:
 - a) Self-esteem: success and confidence.
 - b) Happiness: cheerful and satisfied with life.
 - c) Optimism: confident and inclined to "see the bright side" of life.
 - d) Self-motivation: driven and do not give up in the face of adversity.
2. Self-control: An individual's ability to control their feelings and emotional conditions in the short, medium, and long terms, the ability to control desires and impulses, and the ability to find the right coping mechanism. The self-control section comprises the following subscales:
 - a) Emotion regulation stress management: the ability to control emotions.
 - b) Low impulsivity: reflective and tends to give in to their urges.
 - c) Adaptability: flexible and willing to adapt to new conditions.
3. Emotionality: An individual's ability to measure the emotional understanding of oneself and others, the ability to communicate appropriately and precisely what they think and feel to other people, can see the world from the point of view of others, and has a good emotional relationship with people. The emotionality section comprises the following subscales:
 - a) Emotion perception: Clear about their feelings and those of others.
 - b) Emotion expression: Able to communicate their feelings to others.
 - c) Empathy: Able to take another person's point of view.
 - d) Relationships: Able to maintain the fulfillment of personal relationships.
4. Sociability: An individual's ability to be honest with others about what they think, feel, and want, is sensitive, can socialize easily, is able to influence others, and has the ability to understand and manage the emotional states of others. The sociability section comprises the following subscales:
 - a) Assertiveness: Is frank and willing to defend their rights.
 - b) Social awareness: Is an accomplished networker with superior social skills.

- c) Emotion management: Has the ability to influence the feelings of others.

2.6. Stock Trading Decisions

Trading is a fundamental economic concept that involves the exchange of goods or services through buying and selling activities. In the context of finance, trading activity pertains to the buying and selling of securities, such as stocks. Trading shares is the buying and selling transactions of ownership certificates for companies in the short term. Generally, the short term in question can be seen from the market price every day, so the activity of buying and selling shares depends on fluctuations in market prices (Hadijah, 2022).

Meanwhile, stock investment is a saving activity that allows people to benefit from buying shares over a longer period (Wira, 2023). Stock trading is often also called short-term stock investment. In stock trading, buying and selling activities have erratic price fluctuations, so the right decisions must be made to achieve profits or capital gains, especially when stock prices are high. Table 1 shows the differences between investment and trading.

Table 1. Differences between investment and trading.

Variable	Investment	Trading
Principle	Buying and holding	Buying and selling
Strategy	Buying shares of companies with good fundamentals	Buying shares of companies whose prices have the potential to rise shortly
Timeframe	Long-term	Short-term
Focus	Company health	Stock price (Price action)
Analysis	Fundamental analysis	Technical analysis

Source: Wira (2023).

In stock trading, there is a way of working that must be understood (Hadijah, 2022):

1. Short timeframe.

The difference between stock trading and investing is in the timeframe. Investments focus on the long term, while trading focuses on the short term. The differences come from strategies, principles, and actions. That is, an investor's stock transaction is not relatively short, whereas a trader's is.

2. Leans toward a more technical analysis than a fundamental analysis.

In stock investment, investors will be more passive. Meanwhile, in stock trading, investors will be more active. This is because as a stock trader, you must give yourself time to analyze the market and decide on the best time and price to make stock transactions.

3. Using the principle of buying and selling

Stock traders buy shares at a certain price and will sell them within a relatively short period as long as the value of the shares is within the range desired by the trader. A trader will not hold on to stock assets for too long and will sell them as soon as an opportunity arises to sell them at a higher price than the purchase price. Traders usually expect higher benefits than ordinary investments. Or in other terms, stock trading uses a buy-and-sell system like an actual stock business.

The analysis must also be able to balance the chosen period. This means that traders must be able to find the best solution in a shorter period, namely with a technical analysis. This is in contrast to what investors usually use, which is a fundamental analysis. Indicators in a technical analysis are divided into three (Mafula & Aisjah, 2016):

1. Trend indicators: Used to see the formation and changes in stock movement trends produced by indicators in a technical analysis, including the moving average (MA), moving average convergence/divergence (MACD), and parabolic stop and reverse (SAR).
2. Oscillator indicators: Used to identify stock prices when they reach oversold and overbought levels, including the Stochastic Oscillator and Relative Strength Index (RSI).
3. Volatility indicators: Used to see market strength based on price fluctuations within a certain period, namely Bollinger Bands.

Using these three indicators strengthens the basis for making investment decisions so that investors have an informed reason for every decision taken. The analysis carried out must be more thorough and detailed for all risk factors. Thus, the best capital gain will be achieved from the price difference that occurs when shares are bought and sold.

2.7. Emotional Intelligence and Trading Decisions

Financial decisions and choices are significantly influenced by psychological variables. Emotional moods have been shown to consistently affect investors' bidding behavior (Riedl & Bosman, 2003). Negative emotional states make bidders boost their offers, whereas happy emotional states have little effect on bidder behavior. Additionally, portfolio performance is greater for investors with stronger emotional intelligence (Buccioli et al., 2020). Emotional intelligence influences stock trading choices in a favorable way for Indonesian investors from the millennial generation.

Several previous studies regarding emotional intelligence on investment decisions (Raheja & Dhiman, 2020) show that EI is the only element that influences the way humans develop their lives, work, and social skills to control emotions and relate to others. A study conducted at LSC Securities Ltd., Punjab, involving 500 financial experts, investigated the influence of investor behavioral and psychological factors on investment decision making. The findings revealed a positive correlation between the emotional intelligence traits of self-awareness, emotion management, motivation, empathy, and social skills of financial experts and their investment choices.

Garkaz and Mehrvarzi (2012) analyzed the correlation between EI and the performance of 68 brokerage firms in the stock market. The findings demonstrated a significant association between EI and the firms' performance. Ezadinea et al. (2011) investigated the impact of EI components, including self-awareness, emotional management, self-motivation, communication, and emotional guidance, on the portfolio performance of 122 Iranian shareholders. The results indicate a positive relationship between emotional intelligence and portfolio performance. Moreover, it was observed that self-awareness and communication have a notable effect on the risk of a shareholder's portfolio.

Hess and Bacigalupo (2011) examined how behavior is linked to emotional intelligence and individual and group decision making. The results found that groups and individuals derive positive results from emotional intelligence and make more informed decisions.

H1: Emotional intelligence had a positive effect, leading to better stock trading decisions for millennials in Indonesia during the COVID-19 pandemic.

Apart from financial literacy, emotional intelligence also plays a role in making better and more effective investment decisions. Emotional intelligence does not only function to control oneself, but it also reflects the ability to manage ideas, concepts, work, or products (Fachrudu, 2017). Goleman (1995) states that there are two types of thoughts in humans, the first is rational thought and the second is impulsive and sometimes illogical thought. Emotions in life can sometimes be out of control and stressful. Emotional intelligence is needed to ensure sound decision making. Investor psychology will influence financial decisions (Nofsinger, 2016). Investors who can deal with frustration, control their emotions, empathize, and form effective emotions will avoid behavioral errors (Fachrudu, 2017). Emotional intelligence becomes important to assess oneself in relation to investment behavior. Emotional intelligence shows the main characteristics of emotionally intelligent investors and will influence the process of making the right investment decisions and reduce behavioral biases (Cooper & Petrides, 2010; Petrides et al., 2007). Emotional intelligence hurts the behavioral biases of young millennial investors in Indonesia.

H2a: Emotional intelligence had a positive effect on reducing the behavioral bias of overconfidence among millennials in Indonesia during the COVID-19 pandemic.

H2b: Emotional intelligence had a positive effect on reducing the behavioral bias of the herding effect among millennials in Indonesia during the COVID-19 pandemic.

When investors decide to place their funds into investment products in the form of stocks, this process involves several factors, including cognitive and emotional factors. Emotional intelligence will make a difference in making investment decisions, and investors with the emotional intelligence traits of well-being, self-control, emotionality, and sociability will differ in personality and will make different investment decisions (Wendy, 2021).

H3a: The behavioral bias of overconfidence mediates the relationship between the emotional intelligence and stock trading decisions of millennials in Indonesia during the COVID-19 pandemic.

H3b: The behavioral bias of the herding effect mediates the relationship between the emotional intelligence and stock trading decisions of millennials in Indonesia during the COVID-19 pandemic.

Figure 1 illustrates the research model presented in the next section:

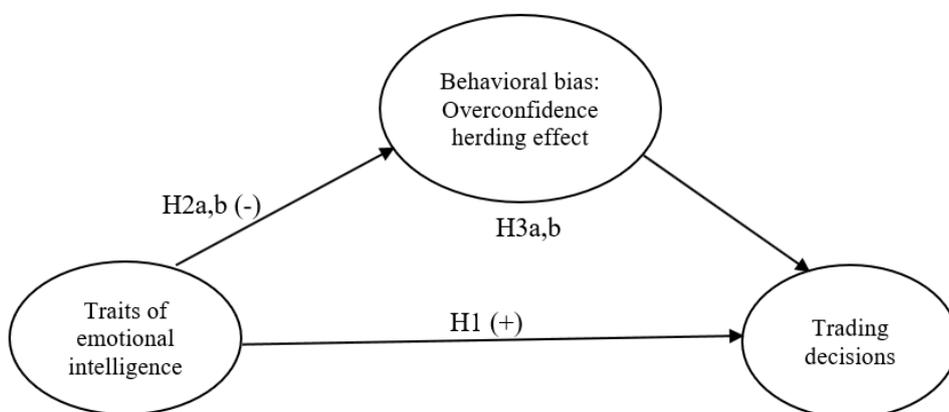


Figure 1. Research model.

3. RESEARCH METHOD

This research is a fundamental study conducted using a quantitative approach, employing survey methods to distribute questionnaires. The population comprises young investors of the millennial generation in Indonesia who are actively trading in the Indonesian capital market. The sampling technique uses nonprobability sampling with the following criteria:

1. Investors aged 17–30 who have a Resident Identity Card (KTP) and a Single Investor Identification (SID) number.
2. Investors who are in the trader category, namely short-term investors, who actively trade with at least 2x transactions in one month.
3. Have a securities account (> 1 year).
4. Lives in Indonesia.

Primary data was collected through questionnaires that were distributed to 500 respondents (Hair, Black, Babin, & Anderson, 2010) in person and online via email, social media, and WhatsApp from February to April 2023. A total of 350 questionnaires were filled out and returned. Out of these, 100 were rejected due to outlier data, leaving a total of 250 that were suitable for hypothesis testing. The questionnaire contains the variables to be examined, namely emotional intelligence traits (KE) (30 questions, overconfidence behavior bias (OC) (4 questions), herding effect (HE) (7 questions), and stock trading decisions (KT) (7 questions). The KE questions were adopted from Siu (2009) and Cooper and Petrides (2010) using the Traits Emotional Intelligence Questionnaire Short Form. OC was adopted from Budiarto & Susanti (2017) in Yunita (2021), HE was adopted from Rona and Sinarwati (2021), and KT was adopted from Hadijah (2022).

A 5-point Likert scale was used in the study to gauge the intensity of each factor. With the use of the Amos program, structural equation modeling (SEM) was used to evaluate the hypotheses. In SEM, three tasks were carried out concurrently: first, the validity and reliability of the instrument were assessed (equivalent to confirmatory factor analysis); second, the relationship model between latent variables was examined (equivalent to path analysis); and third, a useful prediction model was created (equivalent to structural model or regression analysis). The Sobel Test Calculator from Soper (2006) was used to examine the mediating or intervening variables.

Table 2. Respondent profile demographics.

Demographics	Percentage
Gender:	
Male	41.60%
Female	58.40%
Age:	
17–20 years	34.20%
21–25 years	38.80%
26–30 years	27%
Education:	
D3/S1	64.80%
S1	10.70%
S2	23.80%
Other	0.70%
Income:	
< 2 million	49.10%
2–5 million	30.20%
5–10 million	11.40%
10–15 million	5.70%
> 15 million	3.60%
Stock transactions in 1 month:	
2–5x	79.40%
6–10x	12.80%
>10x	7.80%
Non-formal education regarding capital markets:	
Been in	72.20%
Never joined	27.80%
Non-formal education:	
Certification training	16.20%
Capital Pasa School	56.80%
Other	26.90%

4. RESULTS AND DISCUSSION

4.1. Research Result

The demographic results of the respondents' profiles during the questionnaire distribution period (February–April 2023) are shown in Table 2. Based on the results, it can be seen that the majority of the respondents are women (58.4%). The 17–25 age category has the highest number of respondents (73%), and the D3–S1 education level is the highest, with 75%. The income of the majority of respondents is below 2 million (49.1%), followed by 2–5 million (30.2%). Meanwhile, for trading activities or stock transactions in one month, the majority ranges from 2–5x (79.4%).

Table 3. Validity and reliability test results.

Variable	Items	Loading factors		(Loading factors) ²	1-Loading factors ²	CR
KE	WB	0.814	Valid	0.663	0.337	0.831
	SC	0.762	Valid	0.581	0.419	
	EMO	0.86	Valid	0.740	0.260	
	SOC	0.504	Valid	0.254	0.746	
	Total	2.940		2.237	1.763	
	Total ²	8.644				
HE	HE1	0.774	Valid	0.599	0.401	0.841
	HE2	0.711	Valid	0.506	0.494	
	HE4	0.763	Valid	0.582	0.418	
	HE5	0.748	Valid	0.560	0.440	
	HE6	0.582	Valid	0.339	0.661	
	Total	3.578		2.585	2.415	
	Total ²	12.802				
OC	OC1	0.597	Valid	0.356	0.644	0.815
	OC2	0.845	Valid	0.714	0.286	
	OC3	0.781	Valid	0.610	0.390	
	OC4	0.657	Valid	0.432	0.568	
	total	2.880		2.112	1.888	
	Total ²	8.294				
KT	KT2	0.74	Valid	0.548	0.452	0.850
	KT3	0.844	Valid	0.712	0.288	
	KT4	0.785	Valid	0.616	0.384	
	KT5	0.719	Valid	0.517	0.483	
	KT7	0.536	Valid	0.287	0.713	
	Total	3.624		2,680	2,320	
	Total ²	13.133				

Notes: KE is kecerdasan emosional (or emotional intelligence), HE is the herding effect, OC is overconfidence, KT is keputusan trading, WB is well-being, SC is self-control, EMO is emotionality, SOC is sociability, and CR is construct reliability.

The validity and reliability were tested using the SEM measurement model in Amos. Validity can be seen from the factor loading of >0.5 , while reliability can be seen from the CR value of >0.7 . The test results are displayed in Table 3, which indicate that all variables have demonstrated validity and reliability.

The highest factor loading for the KE variable is Emotionality with a value of 0.86. Emotionality is defined as an individual's ability to measure the emotional understanding of oneself and others (emotion perception), the ability to communicate exactly what one thinks and feels to other people appropriately (emotional expression), see the world from another person's point of view (empathy), and have a good emotional relationship with the people around (relationships). Meanwhile, Sociability has the lowest factor loading of 0.504. Sociability is defined as an individual's ability to be honest with others about what they think, feel and want (assertiveness), sensitivity, the ability to socialize with ease, and can influence others (social awareness).

The largest factor loading on the HE variable is HE1, with a value of 0.774, and the smallest is HE6, with a value of 0.582. The loading factor shows that investor decisions depend on the findings of other investors. Meanwhile, investors are interested in investing because they see the profits obtained by other people. Meanwhile, for the OC variable, the biggest factor loading is OC2, with a value of 0.845, and the smallest is OC1, with a value of 0.597. Investors feel that overconfidence is obtained when they believe in their ability to invest better than other investors.

The last variable is KT, with the largest factor loading being KT3 with a value of 0.844, and the smallest is KT7 with a value of 0.536. Many investors' stock trading decisions are based on parameters such as the Moving Average (MA), Moving Average Coverage Divergence (MACD), and Parabolic SAR in stock transaction analysis. Meanwhile, buying shares at a certain price and selling in a short time as long as the value of the shares is within the desired range is a weak factor that investors pay attention to.

After all the variables are valid and reliable, then they are derived using SEM (structural equation model). Figure 2 describes the structural equation model of this study.

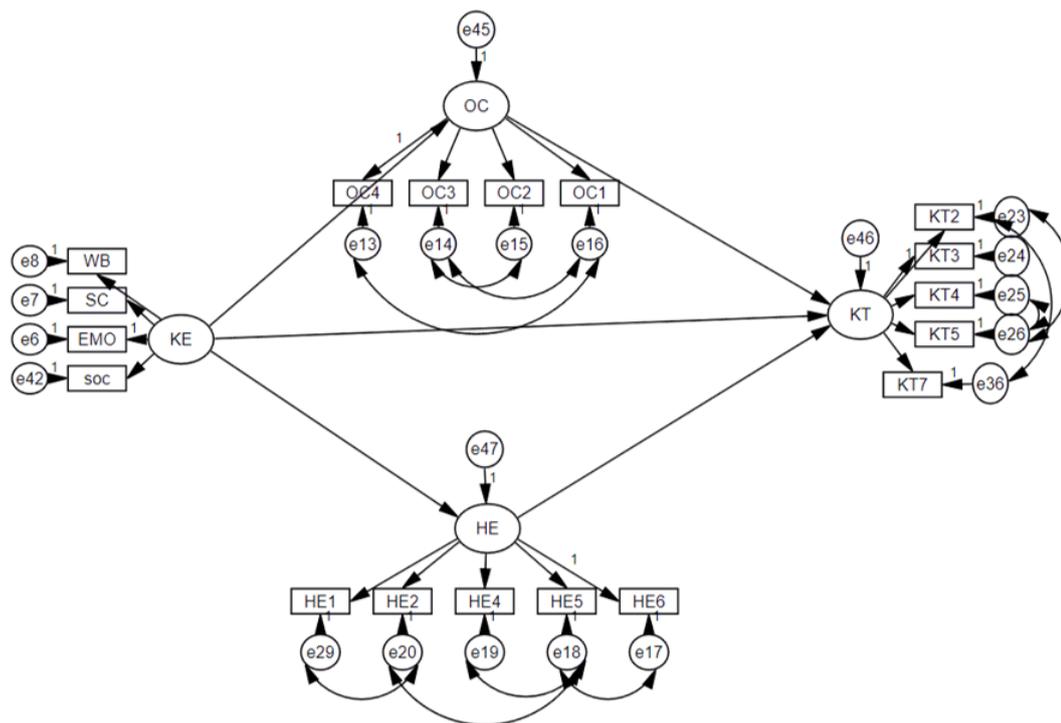


Figure 2. Structural equation model.

Model feasibility tests can be measured using several criteria as follows (see Table 4):

Table 4. Goodness of fit.

Goodness of fit index	Cut-off value	Result	Model evaluation
Chi-Square	Small ≤ 1386.813	651,080	Good fit
Probability	≥ 0.05	0.000	Good fit
CMIN/DF	≤ 2	1,741	Good fit
GFI	≥ 0.90	0.866	Marginal fit
TLI	≥ 0.90	0.885	Marginal fit
CFI	≥ 0.90	0.909	Good fit
IFI	≥ 0.90	0.911	Good fit
NFI	≥ 0.90	0.853	Marginal fit
RMSEA	≤ 0.08	0.059	Good fit

Notes: CMIN is the minimum sample discrepancy function, DF is the degree of freedom, GFI is the goodness of fit index, TLI is the Tucker-Lewis Index, CFI is the Comparative Fit Index, IFI is the Incremental Fit Index, NFI is the Normed Fit Index, and RMSEA is the root mean square error of approximation.

Based on the results in Table 4, it can be concluded that the model evaluation is a good fit and is therefore feasible and can be used to test the three hypotheses proposed in this study. H1 and H2 relate to direct effects, while H3 relates to indirect effects (i.e., mediation/intervention). Hypothesis testing is done by looking at the p-value, and the hypothesis is declared significant if the p-value is $< 5\%$ (0.05). The results of the direct effect test are as follows:

Table 5. Direct effect test results.

Information	Estimate	Standard error	Sig.	Result	Hypothesis result
OC \leftarrow KE	0.061	0.063	***	Sig (+)	H2a is accepted
HE \leftarrow KE	0.73	0.115	***	Sig (+)	H2b is accepted
KT \leftarrow KE	0.051	0.164	0.756	no sig	H1 is rejected

Note: *** significant at $\alpha = 0.01$.

Table 5 shows that emotional intelligence had no effect on the stock trading decisions of young millennial investors in Indonesia during the COVID-19 pandemic; therefore, H1 is rejected. Investors who have traits that show that they are emotionally intelligent do not significantly affect trading decisions. These results are not in line with research stating that emotional intelligence significantly influences investment decisions (Ezadinea et al., 2011; Garkaz & Mehrvarzi, 2012; Hess & Bacigalupo, 2011). This is because in this study the investment decisions are short-term investments or are trading-related, while other studies highlight long-term investment decisions.

The test results of emotional intelligence show a significantly positive reduction in the behavior bias of young millennial investors in Indonesia during the COVID-19 pandemic. This means that investors who have emotional intelligence traits positively reduce overconfidence bias behavior and the herding effect. Therefore, the results show that H2a and H2b are supported, which is consistent with previous research (Cooper & Petrides, 2010; Fachrud, 2017; Petrides et al., 2007). Emotional intelligence can help individuals recognize and manage investors' behavioral biases (Raheja & Dhiman, 2020).

4.2. Research Discussion

4.2.1. The Direct Effect of Emotional Intelligence on Trading Decisions

Emotional intelligence is an assessment of oneself related to emotional abilities (Petrides et al., 2007) such as well-being, self-control, emotionality, and sociability. Well-being means that an individual can have a positive view of themselves and their achievements, be grateful and enjoy what is happening in the present, and still have a positive attitude toward the future. Self-control is an individual's ability to control their feelings and emotions in the short, medium, and long terms, the ability to control desires and impulses within oneself, and the ability to find the right coping mechanisms. Emotionality is an individual's ability to understand their own emotions and those of others, the ability to accurately communicate their thoughts and feelings to other people, see the world from another person's point of view, and have a good emotional relationship with people. Meanwhile, sociability is an individual's ability to be honest with others about what they think, feels and want, is sensitive, finds it easy to socialize, is able to influence others, and has the ability to understand and regulate the emotional states of others (Palmer et al., 2009).

Stock investment is a saving activity, so that one can benefit from buying shares over a longer period (Wira, 2023). Stock trading is often also called short-term stock investment. In stock trading, buying and selling activity comes with erratic price fluctuations, so the right decisions must be made to achieve profits or capital gains, especially when stock prices are high. Regarding short-term investment or trading decisions, a trader will not hold on to stock assets for too long and will sell them as soon as possible at a higher price than the purchase price. Traders usually expect higher benefits than ordinary investments. Or in other terms, stock trading uses a buy-and-sell system like an actual stock business (Mafula & Aisjah, 2016)

The explanation above shows that emotional intelligence can be useful in many aspects of life but does not always directly influence trading decisions for several reasons. Rational decision-making means that trading decisions are usually based on a rational analysis of market data, trends, and financial indicators. Emotional intelligence focuses more on emotions and relationships than on objective analysis. Emotional intelligence can assist in managing emotions during trading, but it may not have a direct impact on the decision-making process. Below are some explanations related to other factors that affect trading decisions (Suprasta & Nuryasman, 2020).

The data-based approach is one of the factors that influence trading success. Success often depends on data-driven strategies, where decisions are based on historical patterns and statistical models. Emotional intelligence may not play a significant role in such an approach, because it prioritizes objective information over emotional states. In addition, there is market uncertainty, meaning that financial markets can be very unpredictable and volatile. Emotional intelligence alone may not be sufficient to navigate complex and ever-changing market dynamics. Traders need to rely on technical and fundamental analysis, risk management strategies, and market

knowledge to make informed decisions (Suprasta & Nuryasman, 2020).

In stock trading, you have to understand how things work, such as timeframes, analysis, and indicators such as trends, oscillators, and volatility, which will strengthen the basis for making trading decisions (Hadjiah, 2022). The analysis carried out must be more thorough and detailed for all risk factors to achieve the best capital gain from the price difference that occurs between when you buy shares and when you sell them. Therefore, emotional intelligence can influence trading decisions but not directly. Investors can make trading decisions that are influenced more by factors such as strategic databases and market uncertainty than the ability to manage their emotions. The results of this study show no significant influence of emotional intelligence on trading decisions.

4.2.2. *The Direct Effect of Emotional Intelligence Trait on the Overconfidence Behavior Bias and the Herding Effect*

The results of testing the emotional intelligence traits show a significantly positive reduction in the behavior bias of young millennial investors in Indonesia during the COVID-19 pandemic. This means that investors who have traits that show emotional intelligence positively reduce overconfidence bias behavior and the herding effect. The results show that H2a and H2b are supported, which is consistent with research carried out by Cooper and Petrides (2010); Fachrudiy (2017) and Petrides et al. (2007). Emotional intelligence can help individuals recognize and manage investors' behavioral biases (Raheja & Dhiman, 2020).

Emotional intelligence traits were found to have a positive effect in reducing overconfidence in millennial generation investors during the COVID-19 pandemic. Investors with good emotional intelligence tend to be more able to control their emotions and reduce the tendency to be overconfident (Arora & Kumari, 2020; Raheja & Dhiman, 2020). Overconfidence is a tendency to feel overly confident in our abilities and personal judgment. Through emotional intelligence, young investors can reduce overconfidence bias through self-awareness, managing emotions, acknowledging limitations, thinking rationally, and seeking feedback from others (Goleman, 1995; Lazarus, 1991; Maia, Bonfim, & Da Silva, 2020). Investors who can control their emotions will make more rational and balanced investment decisions by avoiding the trap of overconfidence bias.

Investors who can admit their limited knowledge and skills and who don't consider themselves absolute experts in investing will always be open to learning and will dig deeper before making a decision. In addition, these people will seek feedback from colleagues or mentors who are more experienced in the investment field so that they can avoid mistakes and unhealthy overconfidence. Emotional intelligence also helps millennial investors to remain calm and think rationally when faced with stressful situations so that they are better able to evaluate information objectively and make wiser investment decisions (Hess & Bacigalupo, 2011; Shefrin, 2002).

In addition to having a positive effect on reducing overconfidence bias, emotional intelligence also shows a positive effect on reducing the herding effect bias (Raheja & Dhiman, 2020). The herding effect is the tendency of investors to follow the masses or groups in making investment decisions. This is because emotional intelligence involves a high level of self-awareness, including awareness of one's emotions and motivations. So, through good self-awareness, young investors can analyze whether investment decisions are based on objective information or if they are just following the masses. Investors who have good emotional intelligence may be better able to control emotions such as fear or anxiety that are often associated with uncertainty in the market. As such, they may be better able to maintain independent investment decisions than to be caught displaying herding effect behavior.

Investors who can see situations from other people's perspectives may be better able to consider multiple points of view and information before making an investment decision. This can help them avoid the herding effect by relying on independent thinking and more objective evaluations. Emotional intelligence can help young millennial investors develop good problem-solving skills. They may be better able to carefully consider and evaluate information before making investment decisions, thus avoiding herding effect behavior which bases decisions on the majority. Now that the COVID-19 pandemic situation is largely over, herding behavior in the Indonesian capital market has also begun to fade (Warganegara & Warganegara, 2022).

4.2.3. The Direct Effect of the Overconfidence Behavior Bias and the Herding Effect on Trading Decisions

Furthermore, the direct influence test results demonstrate that behavioral biases influenced the stock trading decisions of millennial generation investors in Indonesia during the COVID-19 pandemic. Overconfidence was found to have a substantial favorable impact on stock trading decisions. The overconfidence behavior bias can have a positive effect on stock trading decisions for young investors of the millennial generation because this generation tends to perceive themselves as being overconfident in their abilities and knowledge in investing despite a lack of experience in stock trading (Statman et al., 2006). These feelings trigger overconfidence and lead to less rational decisions. Millennial investors also tend to pay less attention to potential losses because they feel they can manage risk and are more focused on the potential for large profits (Barberis & Thaler, 2002).

The herding effect had no discernible impact on stock trading decisions. Advances in information technology make it simple and quick to obtain market data and stock research. As a result, young investors have a high capacity for conducting independent assessments and making trading decisions based on the information gathered. This generation also has a higher financial understanding because they are accustomed to receiving financial information and education via online courses, investment platforms, and stock markets, allowing them to make more rational judgments based on analysis rather than solely on herding behavior.

4.2.4. Indirect Influence

To test H3, the Sobel Test Calculator is used to determine the indirect or mediating impact using the following criteria to conclude full mediation or partial mediation: If the direct effect is insignificant but the indirect effect is large, there is full mediation, and partial mediation occurs when both the direct and indirect effects are considerable. Table 6a displays the result of the direct influence of behavioral biases (OC and HE) on KT. Table 6b displays the Sobel Test Calculator results for indirect effects.

Table 6a. Direct effect test results.

Information	Estimates	Standard error	Sig.	Result
KT <--- OC	0.507	0.115	***	Sig. (+)
KT <--- HE	-0.019	0.098	0.849	No sig.

Note: *** significant at $\alpha = 0.01$.

Table 6b. Indirect influence test results.

Information	Estimate A	Estimate B	Standard error A	Standard error B	Sig.	Conclusion
KE→OC→KT	0.394	0.507	0.091	0.115	0.001***	Sig.
KE→HE→KT	0.73	-0.019	0.115	0.098	0.423	No Sig.

Note: *** significant at $\alpha = 0.01$.

Table 7. Mediation test results.

Information	Direct influence	Indirect influence	Conclusion	Hypothesis result
KE→OC OC→KT	Sig. Sig.	Sig.	Partial mediation	H3a is accepted
KE→HE HE→KT	Sig. No Sig.	No Sig.	No mediation	H3b is rejected

The mediation test results for H3a, as presented in Tables 6a, 6b and 7, have been accepted. These findings suggest that the overconfidence behavior bias partially mediated the relationship between emotional intelligence and stock trading decisions among young millennial investors in Indonesia during the Covid-19 pandemic. Millennial generation investors tend to have high emotional intelligence, as explained by the direct influence, so they are more confident in their ability to predict market movements, have in-depth insight into the market, and

anticipate changes well so that they can make the right investment decisions. Overconfidence, on the other hand, can lead to ignoring dangers and market instability. Furthermore, the overconfidence bias influences how young investors interpret market information and trading signals because they disregard or underestimate evidence that contradicts their own ideas in favor of their own positive viewpoints. As a result, dangerous investment decisions are made without careful consideration of all relevant factors.

Young investors from the millennial generation, despite possessing high emotional intelligence, are still susceptible to the impact of their own emotions while making investment decisions (Thomas & Menachery, 2018). When an investment is successful, investors experience euphoria, but when it fails, they experience intense worry and fear. This leads to irrational conclusions that neglect essential issues that should be examined. Based on this, overconfidence serves as a partial mediator between emotional intelligence and the stock trading judgments of young investors. Overconfidence bias will result in suboptimal decision making for investors with high emotional intelligence.

The analysis rejected H3b, implying that the herding effect did not moderate the association between emotional intelligence and stock trading decisions made by young investors in Indonesia during the COVID-19 outbreak. This is due to the lack of a direct relationship between emotional intelligence and herding tendency in stock trading.

Although emotional intelligence can impact decision making, other factors such as social influence and a predisposition to follow trends or market uncertainty have a greater influence on herding behavior (Raheja & Dhiman, 2020). Due to a lack of information and understanding about the stock market and investment techniques, people tend to follow the majority. This is why young investors in Indonesia rely on knowledge, analysis, and personal experience to make investment decisions rather than following herding behavior (Warganegara & Warganegara, 2022).

5. CONCLUSION

The phenomenon of a surge in young investors of the millennial generation in the Indonesian capital market with short-term transactions or trading during the COVID-19 outbreak gave rise to irrational behavior, and investors did not always follow logic or align with classical finance. Emotions can have an impact on financial decisions, so a person's emotional state must be stable in order to think rationally and avoid regret before making a decision. Emotional intelligence is required to control and use emotions to develop thinking skills by appropriately identifying, controlling, comprehending, and reflecting on emotions. Several prior studies have found that emotional intelligence has an impact on financial decisions (Afolabi et al., 2010; Ezadinea et al., 2011; Garkaz & Mehrvarzi, 2012; Gumora & Arsenio, 2002; Hess & Bacigalupo, 2011; Pervez, 2014; Raheja & Dhiman, 2020).

Unknown circumstances during the COVID-19 pandemic may result in heuristics or biases. Investors use all available knowledge and data to make the best possible investment decisions. There is sometimes a psychological influence on decisions that are made, and when it comes to financial decisions, psychological variables, notably prejudice, have a role. This study dives deeper into emotional intelligence traits and stock trading decisions based on this, with a focus on young millennial (Generation Y) investors in Indonesia. It also looks into behavioral bias as a moderating factor in defining emotional intelligence traits and trading decisions.

The study's findings indicate that the type of emotional intelligence did not affect stock trading decisions made by millennial generation investors in Indonesia during the COVID-19 outbreak. H1 is neither accepted nor rejected. These findings contradict previous research (Ezadinea et al., 2011; Garkaz & Mehrvarzi, 2012; Hess & Bacigalupo, 2011), which states that emotional intelligence traits significantly influence investment decisions. Although emotional intelligence can assist traders in managing their emotions, it may not have an immediate impact on decision making. Data-driven strategies based on prior patterns and statistical models are widely used to make trading judgments. To make good trading decisions, you must first understand how things work, such as

timeframes, analysis, and indicators such as trends, oscillators and volatility (Hadijah, 2022). Emotional intelligence may not play a big part in such an approach because objective knowledge is prioritized over emotional feelings. In addition, financial markets can be extremely turbulent and unpredictable. To negotiate complicated and ever-changing market circumstances, emotional intelligence alone may not be adequate. To make informed selections, traders must rely on technical and fundamental analysis, risk management tactics, and market expertise (Suprasta & Nuryasman, 2020).

Meanwhile, during the COVID-19 pandemic, the assessment of emotional intelligence traits revealed a positive and considerable reduction in the behavioral biases (overconfidence and herding effect) of young millennial investors in Indonesia. The findings indicate that H2a and H2b are supported, which aligns with previous studies (Cooper & Petrides, 2010; Fachrudu, 2017; Petrides et al., 2007; Raheja & Dhiman, 2020). Investors with good emotional intelligence tend to be more able to control their emotions and are not overconfident (Arora & Kumari, 2020; Raheja & Dhiman, 2020). Young investors of the millennial generation can reduce overconfidence bias through self-awareness, emotion management, acceptance of limitations, rational thinking, and seeking input from others (Goleman, 1995; Lazarus, 1991). Emotional intelligence allows investors to assess and analyze if their investment decisions are based on objective knowledge or if they are simply following the crowd. Investors with strong emotional intelligence are better equipped to deal with emotions related to market uncertainty, such as anxiety and concern. As a result, rather than being caught up in herding behavior, they may be better able to keep autonomous investing judgments (Maia et al., 2020).

Overconfidence has a large positive influence on stock trading decisions, according to direct testing, whereas the herding effect has no effect on stock trading decisions. Despite their lack of stock trading expertise, millennial investors are believed to be overconfident in their abilities and knowledge of investing. These feelings lead to overconfidence, which leads to hasty decisions. Furthermore, they are less concerned with potential losses because they believe that they can control risk and are more concerned with the chance of large gains (Budiati et al., 2018). Meanwhile, because advances in information technology have made it quick and simple to obtain market information and carry out stock research, the herding effect has no bearing on stock trading decisions. Young investors are becoming more self-sufficient in their analysis and trading decisions depending on the information they get. Better financial knowledge obtained through online courses, investing platforms, and stock markets lead to more rational judgments based on analysis and less reliance on herding behavior (Warganegara & Warganegara, 2022).

Based on the results of the mediation tests, it was found that the overconfidence behavior bias partially mediated the relationship between emotional intelligence and stock trading decisions among millennial generation investors in Indonesia during the COVID-19 outbreak. However, it was observed that the herding effect did not play a moderating role in the relationship between emotional intelligence and stock trading decisions. Millennial generation investors' emotional intelligence boosts their confidence in their ability to forecast market movements, gain a thorough understanding of the market, and predict changes well enough to make sensible investment selections (Budiati et al., 2018). However, because they are overconfident, they sometimes ignore risks and market volatility, as well as ignore evidence that contradicts their beliefs and instead rely on their optimistic viewpoints. As a result, risky investment decisions are made without a thorough examination of all relevant factors.

Millennial generation investors with high emotional intelligence are susceptible to being influenced by their own emotions when making financial decisions. When an investment succeeds, investors feel ecstasy; when it fails, they feel acute stress and fear. This leads to erroneous conclusions that ignore critical topics that should be investigated. Overconfidence, according to this study, acts as a partial mediator between emotional intelligence and stock trading decisions made by millennial investors. Overconfidence bias will cause investors with high emotional intelligence to make poor decisions.

Meanwhile, H3b is ruled out, implying that the herding effect did not moderate the association between emotional intelligence and stock trading decisions made by millennial investors in Indonesia during the Covid-19 outbreak. This is due to the lack of a direct relationship between emotional intelligence and herding tendency in stock trading. Although emotional intelligence can impact decision making, other factors, such as social influence, a predisposition to follow trends, or market uncertainty, have a greater influence on herding behavior. Due to a lack of information and understanding about the stock market and investment techniques, people tend to follow the majority. This is why young Indonesian investors of the millennial generation rely more on knowledge and analysis.

This research has several limitations: it is limited to young investors of the millennial generation; the use of emotional intelligence is limited to traits; and it also only uses behavioral bias, namely overconfidence and the herding effect. Further research could include various generations, such as baby boomers, because the characteristics of each generation are different, and the results will be more generalizable. In addition, further research is suggested to complement another model of emotional intelligence, namely EI ability. Likewise, with investor behavior bias, further research can add other investor behavior biases.

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Transparency: The authors state that the manuscript is honest, truthful, and transparent, that no key aspects of the investigation have been omitted, and that any differences from the study as planned have been clarified. This study followed all writing ethics.

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Authors' Contributions: Formulated the study questions, developed the study design, collected and analyzed the data, and draft manuscript, and primary responsibility for final content, B.S.S.; contributed to the interpretation the results and revised the manuscript, S., R.W. and C.F.A. All authors have read and agreed to the published version of the manuscript.

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