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The Role Of Overconfidence And Risk Perception In Stock Investment Decision-Making Among Young Investors

Peran Overconfidence Dan Persepsi Risiko Dalam Proses Pengambilan Keputusan Investasi Saham Pada Investor Muda

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ABSTRACT
The rapid growth of stock market participation among young investors, particularly Generation Z, has intensified concerns regarding the psychological factors underlying investment decision-making. Despite increased access to financial information and digital trading platforms, young investors often exhibit biased judgments and inconsistent decision quality. From a psychological perspective, cognitive biases and subjective risk evaluation play a critical role in shaping behavior under uncertainty. This study aims to examine the role of overconfidence and risk perception in stock investment decision-making among young investors. This research employs a quantitative, explanatory design using survey data collected from 159 Generation Z investors. Data were analyzed using multiple linear regression analysis to assess the effects of overconfidence and risk perception on stock investment decision-making. Overconfidence and risk perception were measured as psychological constructs reflecting cognitive bias and subjective risk appraisal, respectively. The results indicate that overconfidence has a positive and statistically significant effect on stock investment decision-making, suggesting that excessive self-belief increases decisiveness and investment engagement among young investors. Additionally, risk perception significantly influences investment decisions, highlighting the importance of subjective risk evaluation in guiding behavior under uncertainty. The findings confirm that psychological factors jointly shape how young investors interpret information and make financial decisions. From a psychological standpoint, this study contributes to decision-making and cognitive psychology by demonstrating that investment behavior among young adults is driven not only by rational evaluation but also by cognitive bias and perceived risk. The findings imply that psychological interventions such as bias awareness training, self-reflection, and risk appraisal education are essential complements to financial literacy programs.
Keywords : *Overconfidence, Risk Perception, Decision-Making, Generation Z, Investment Psychology*

ABSTRAK
Pertumbuhan pesat partisipasi pasar modal di kalangan investor muda, terutama Generasi Z, telah memperkuat kekhawatiran terkait faktor psikologis yang mendasari pengambilan keputusan investasi. Meskipun akses ke informasi keuangan dan platform perdagangan digital semakin mudah, investor muda seringkali menunjukkan penilaian yang bias dan kualitas keputusan yang tidak konsisten. Dari perspektif psikologis, bias kognitif dan penilaian risiko subjektif memainkan peran kritis dalam membentuk perilaku di bawah ketidakpastian. Studi ini bertujuan untuk mengeksplorasi peran overconfidence dan persepsi risiko dalam pengambilan keputusan investasi saham di kalangan investor muda. Penelitian ini menggunakan desain kuantitatif eksplanatori dengan data survei yang dikumpulkan dari 159 investor Generasi Z. Data dianalisis menggunakan analisis regresi linier berganda untuk menilai dampak overconfidence dan persepsi risiko terhadap pengambilan keputusan investasi saham. Overconfidence dan persepsi risiko diukur sebagai konstruksi psikologis yang mencerminkan bias kognitif dan penilaian risiko subjektif, masing-masing. Hasil menunjukkan bahwa overconfidence memiliki efek positif dan signifikan secara statistik terhadap pengambilan keputusan investasi saham, menunjukkan bahwa keyakinan diri yang berlebihan meningkatkan ketegasan dan keterlibatan investasi di kalangan investor muda. Selain itu, persepsi risiko secara signifikan mempengaruhi Keputusan investasi, menyoroti pentingnya evaluasi risiko subjektif dalam mengarahkan perilaku di bawah ketidakpastian. Temuan ini menegaskan bahwa faktor psikologis secara bersama-sama membentuk cara investor muda menafsirkan

informasi dan mengambil keputusan keuangan. Dari sudut pandang psikologis, studi ini berkontribusi pada psikologi pengambilan keputusan dan kognitif dengan menunjukkan bahwa perilaku investasi di kalangan dewasa muda tidak hanya dipengaruhi oleh evaluasi rasional, tetapi juga oleh bias kognitif dan persepsi risiko. Temuan ini menyiratkan bahwa intervensi psikologis seperti pelatihan kesadaran bias, refleksi diri, dan pendidikan penilaian risiko merupakan pelengkap penting bagi program literasi keuangan.
Kata Kunci: Kepercayaan Diri Berlebihan, Persepsi Risiko, Pengambilan Keputusan, Generasi Z, Psikologi Investasi

1. Introduction

The rapid growth of digital trading platforms and financial technology has significantly increased stock market participation among young investors. Easy access to real-time market information, low transaction costs, and the proliferation of investment-related content on social media have transformed stock investing into an increasingly popular activity for younger generations. However, despite this growing participation, empirical evidence indicates that young investors often exhibit suboptimal investment behavior, characterized by excessive trading, short-term orientation, and inconsistent risk management practices. This phenomenon suggests that investment decisions among young investors are not always driven by rational financial analysis, but are strongly influenced by psychological factors. One of the most prominent behavioral biases affecting investment decision-making is overconfidence (Baker et al., 2022). Overconfidence refers to an individual’s tendency to overestimate their knowledge, predictive ability, and control over investment outcomes. Among young investors, overconfidence is often reinforced by limited investment experience combined with early success, exposure to persuasive online narratives, and social validation from peer communities. While confidence can enhance decisiveness, excessive overconfidence may lead investors to underestimate market uncertainty, ignore relevant information, and take unjustified risks. Empirical studies have shown that overconfident investors tend to trade more frequently, hold less diversified portfolios, and experience lower long-term returns.

In addition to overconfidence, risk perception plays a crucial role in shaping investment decisions. Risk perception reflects an investor’s subjective assessment of uncertainty and potential losses associated with investment activities. Young investors often demonstrate distorted risk perceptions, either by underestimating risk due to optimism bias or overestimating it due to fear and limited financial literacy. These subjective evaluations of risk frequently diverge from objective financial indicators, leading to investment decisions that are inconsistent with rational portfolio theory. For example, Kudryavtsev et al. (2023) found that while overconfidence increases trading activity, it does not necessarily improve investment decision quality or performance. Likewise, Shah et al. (2024) demonstrated that excessive overconfidence can impair judgment, leading to suboptimal asset allocation and increased exposure to losses. These findings suggest that overconfidence may not always function as a positive driver of investment decision-making and may instead produce adverse outcomes under certain conditions.

The interaction between overconfidence and risk perception may therefore produce complex behavioral outcomes, influencing both risk-taking behavior and investment performance. Despite the growing body of literature in behavioral finance, a phenomenon gap remains evident. The increasing number of young investors does not necessarily correspond with improved investment quality or financial well-being. In many emerging and developing markets, including those with rapidly expanding retail investor bases, young investors continue to experience significant losses, high volatility in portfolio returns, and premature market exit. This contradiction between participation growth and decision quality highlights the need to examine the psychological mechanisms underlying investment behavior among young investors.

Conversely, other studies reveal inconsistent or opposing findings regarding the role of risk perception. Trinh et al. (2022) reported that heightened risk perception discourages stock market participation among young investors during periods of market volatility. Similarly, Akhtar et al. (2024) found that risk perception does not directly influence investment decisions when investors rely heavily on heuristics or social information. These conflicting results indicate that the impact of risk perception may depend on contextual factors such as market conditions, investor experience, and interaction with other psychological biases.

Importantly, prior studies largely examine overconfidence and risk perception as independent predictors of investment behavior. Limited empirical research has investigated their combined or interactive effects, particularly among young investors. Behavioral finance theory suggests that overconfidence may distort risk perception, causing investors to underestimate risk and engage in aggressive investment behavior (Barberis et al., 2022). However, empirical validation of this interaction remains scarce, especially in emerging market contexts where young investors dominate retail participation. Furthermore, a clear research gap can be identified in existing studies. Prior research has predominantly examined overconfidence and risk perception as independent determinants of investment decisions, with limited attention to their combined or interactive effects. Adielyani and Mawardi (2022) found that overconfidence significantly increases stock investment decisions among millennial investors, leading to higher trading frequency. Similarly, Phan, Rieger, and Wang (2021) reported that overconfident investors are more likely to engage actively in stock markets and underestimate downside risk. Evidence from emerging markets also confirms that overconfidence strengthens investors' willingness to invest in equities despite market uncertainty (Nguyen & Rozsa, 2023).

Many studies also focus on mature investors or institutional contexts, while empirical evidence specifically targeting young investors who are more vulnerable to cognitive bias and emotional influence remains relatively scarce. Additionally, most existing studies are concentrated in developed markets, leaving behavioral investment dynamics in emerging economies underexplored. Given these gaps, the urgency of this research lies in its potential contribution to both theory and practice. From a theoretical perspective, this study extends behavioral finance literature by integrating overconfidence and risk perception within a unified framework to explain stock investment decision-making among young investors. From a practical standpoint, understanding these psychological drivers is essential for designing effective investor education programs, improving financial literacy initiatives, and supporting regulatory efforts to promote healthier investment behavior. As young investors represent the future backbone of capital markets, addressing behavioral biases at an early stage is crucial to ensuring sustainable market participation and long-term financial stability. Accordingly, this study aims to investigate the role of overconfidence and risk perception in shaping stock investment decisions among young investors, providing empirical evidence that bridges existing gaps and offers actionable insights for academics, practitioners, and policymakers.

2. Literature Review

Behavioral Finance Theory

Traditional finance assumes that investors are rational agents who make decisions based on complete information and logical evaluation of risk and return. However, empirical evidence consistently shows that real-world investors often deviate from rational behavior due to cognitive limitations and emotional influences. Behavioral finance emerges as an alternative framework that integrates insights from psychology into financial decision-making, explaining why investors systematically make biased and sometimes irrational choices (Barberis et al., 2022). Behavioral finance posits that investment decisions are influenced by heuristics and biases, such as overconfidence, loss aversion, and distorted risk perception. These biases are particularly salient among young investors, who typically have limited investment experience and are more exposed to social influence and digital information overload. As a result, behavioral finance provides a relevant theoretical foundation for examining how psychological factors shape stock investment decision-making among young investors.

In psychology, decision-making is understood as a complex cognitive and affective process through which individuals select a course of action among several alternatives under conditions of uncertainty. Unlike classical economic models that assume rational agents, psychological decision-making theories emphasize bounded rationality, subjective judgment, and emotional influence. According to cognitive psychology, individuals rely on mental shortcuts (heuristics) to simplify complex decisions, which may lead to systematic biases (Kahneman, 2011). Within this framework, investment decision-making is not merely a financial calculation but a form of judgment under uncertainty, where beliefs, emotions, and personal traits strongly shape behavior. For young investors, decision-making processes are particularly vulnerable to cognitive distortion due to limited experience, high emotional reactivity, and strong social influence, making psychological analysis essential for understanding investment behavior.

Overconfidence Bias in Investment Decisions

Overconfidence is one of the most extensively studied cognitive biases in behavioral finance. It refers to an investor's tendency to overestimate their knowledge, analytical skills, or ability to predict market movements. Overconfident investors believe they possess superior information or skills compared to others, leading them to underestimate uncertainty and overestimate expected returns (Phan et al., 2021). Recent empirical studies consistently show that overconfidence significantly influences investment behavior. Adielyani and Mawardi (2022) demonstrate that overconfidence positively affects stock investment decisions by increasing investors' willingness to trade and allocate funds to risky assets. Similarly, Nguyen and Rozsa (2023) find that overconfident investors in emerging markets exhibit higher participation in stock markets and greater risk-taking behavior. However, the literature also highlights the potential negative consequences of overconfidence. Excessive confidence may result in overtrading, poor diversification, and lower long-term investment performance. Kudryavtsev et al. (2023) report that although overconfidence increases trading frequency, it does not necessarily improve investment outcomes. Shah et al. (2024) further argue that extreme overconfidence can impair judgment and lead to irrational investment decisions, particularly during periods of market volatility. These mixed findings suggest that while overconfidence may encourage investment participation, it does not always enhance decision quality, indicating the need for further investigation into its role among young investors.

From a psychological standpoint, overconfidence is a cognitive bias characterized by excessive belief in one's abilities, judgments, or control over outcomes. In cognitive psychology, overconfidence is closely linked to illusory superiority, illusion of control, and self-enhancement motivation. Individuals tend to overestimate the accuracy of their knowledge and underestimate uncertainty, especially in domains perceived as skill-based rather than chance-based. Psychological research explains overconfidence through self-attribution theory, which suggests that individuals attribute success to internal factors (ability, intelligence) and failure to external factors (luck, market conditions). This mechanism reinforces inflated self-beliefs over time. Among young adults, overconfidence is often intensified by developmental factors, such as identity formation, optimism bias, and the need for competence affirmation. In the context of investment behavior, overconfidence leads individuals to rely heavily on intuition and subjective judgment while discounting contradictory information. From a psychological decision-making perspective, overconfidence increases decisiveness and action orientation but reduces reflective thinking and critical evaluation. Thus, overconfidence functions as a cognitive accelerator that pushes individuals toward action, even when uncertainty is high.

Risk Perception and Investment Behavior

Risk perception refers to an individual's subjective evaluation of uncertainty and potential losses associated with an investment. Unlike objective risk measures derived from financial models, risk perception is shaped by psychological, social, and experiential factors. Behavioral finance theory argues that investors act based on perceived risk rather than actual risk, making risk perception a critical determinant of investment decisions (Aren & Aydemir, 2021). Empirical evidence supports the significant influence of risk perception on investment behavior. Aren and Aydemir (2021) find that investors with lower perceived risk are more inclined to invest in stocks. Pak and Mahmood (2023) further show that risk perception plays a dominant role in shaping stock investment decisions among young investors, often surpassing objective financial indicators. Conversely, other studies present contrasting results. Trinh et al. (2022) demonstrate that heightened risk perception discourages stock market participation, especially during periods of economic uncertainty. Akhtar et al. (2024) find that risk perception may become insignificant when investors rely heavily on heuristics or social cues rather than rational assessment. These inconsistencies indicate that the effect of risk perception on investment decisions is context-dependent and influenced by other behavioral factors.

Risk perception is a central construct in psychology, defined as an individual's subjective interpretation of uncertainty and potential harm. Psychological theories emphasize that risk perception is not an objective assessment but a cognitive affective evaluation shaped by emotions, experience, and context. According to the psychometric paradigm, individuals perceive risk differently based on familiarity, controllability, and perceived consequences. Affective psychology further argues that emotions such as fear, anxiety, and excitement strongly influence risk perception. The affect heuristic explains how positive feelings toward an activity reduce perceived risk, while negative emotions amplify it. In young investors, emotional responses to market fluctuations, social narratives, and peer success stories can significantly distort perceived risk. Risk perception also reflects individual differences in cognitive style and tolerance for ambiguity. Young individuals with lower perceived risk are more likely to engage in exploratory and risk-seeking behavior, while those with heightened risk perception tend to avoid uncertain outcomes. Consequently, risk perception plays a pivotal role in shaping behavioral responses under uncertainty, including financial decisions.

Interaction between Overconfidence and Risk Perception

While overconfidence and risk perception have been widely examined, most studies analyze them as independent constructs. Behavioral finance theory suggests that these two factors may be interrelated. Overconfidence can distort risk perception by causing investors to underestimate potential losses and overestimate their ability to manage risk (Barberis et al., 2022). Empirical studies supporting this interaction remain limited. Some recent evidence indicates that overconfidence may reduce perceived risk, indirectly increasing risk-taking behavior and investment activity (Phan et al., 2021). However, the extent to which overconfidence alters risk perception and jointly influences investment decision-making particularly among young investors has not been sufficiently explored. This gap is especially relevant in the context of young investors, who are more susceptible to cognitive bias and emotional influence due to limited experience and strong peer effects. Understanding the combined role of overconfidence and risk perception is therefore essential for explaining why young investors often make aggressive or inconsistent investment decisions.

Stock Investment Decision-Making among Young Investors

Stock investment decision-making refers to the process by which individuals evaluate information, assess risk, and choose whether and how to invest in stocks. For young investors, this process is often influenced not only by financial knowledge but also by psychological and behavioral factors. Digital platforms, social media, and peer communities further amplify the role of cognitive bias in shaping investment choices. Recent studies emphasize that young investors are more prone to behavioral biases than experienced investors. Baker et al. (2022) argue that limited financial experience combined with high information exposure increases susceptibility to overconfidence and distorted risk perception. Consequently, investment decisions among young investors are frequently driven by emotion and intuition rather than fundamental analysis. Given the growing participation of young investors in capital markets, understanding the behavioral determinants of their investment decisions is crucial. Integrating overconfidence and risk perception within a behavioral finance framework offers a more comprehensive explanation of young investors' stock investment decision-making processes.

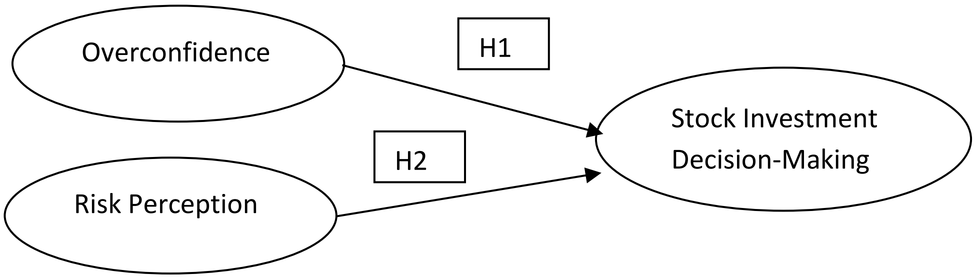
Stock Investment Decision Making among Young Investors: A Psychological View

From the perspective of psychology, stock investment decision-making among young investors is a manifestation of broader cognitive and emotional processes. Young investors often approach investment as a domain for self-expression, achievement, and social validation. Their decisions are influenced not only by information processing but also by motivation, emotion, and identity-related factors. Psychological research indicates that young adults are more prone to sensation-seeking, optimism bias, and social comparison, all of which interact with overconfidence and risk perception. As a result, investment decisions may be driven more by perceived competence and emotional reinforcement than by rational evaluation. Understanding stock investment decision-making among young investors therefore requires an integrative psychological framework that accounts for cognitive bias, subjective risk evaluation, and developmental characteristics.

Psychological Relationship between Overconfidence and Risk Perception

Psychological theory suggests a strong inverse relationship between overconfidence and risk perception. Overconfidence reduces perceived risk by fostering an illusion of control, whereby individuals believe they can manage or predict uncertain outcomes better than others. This cognitive distortion suppresses awareness of potential losses and weakens emotional responses to risk. From a cognitive psychology perspective, overconfidence acts as a filtering mechanism that biases information processing. Overconfident individuals selectively attend to confirming evidence and disregard signals of danger, leading to systematically lower risk perception. This relationship is especially salient among young individuals, whose cognitive control mechanisms are still developing and who are more sensitive to reward cues. This interaction explains why individuals may simultaneously exhibit high confidence and low risk awareness, resulting in aggressive decision-making. In psychological terms, overconfidence alters the internal representation of risk rather than external conditions, highlighting its role as a precursor to distorted judgment.

The conceptual framework proposes that overconfidence directly influences stock investment decision-making by increasing investors' willingness to participate in the stock market and take risks. At the same time, risk perception is expected to directly affect investment decisions, as investors who perceive lower risk are more likely to invest in stocks. Furthermore, behavioral finance literature suggests that overconfidence may distort risk perception, leading investors to underestimate risk and thereby indirectly shape investment decisions.



Pictures 1. Empirical Model

Hypothesis Development

Overconfidence and Stock Investment Decision-Making

Overconfidence represents a cognitive bias in which investors systematically overestimate their analytical ability, informational advantage, and capacity to predict stock price movements. From a behavioral finance perspective, overconfidence reduces investors' sensitivity to uncertainty and amplifies their belief in personal judgment, causing them to rely excessively on private signals rather than objective market information. This cognitive distortion leads investors to perceive stock investment as more controllable and less risky than it actually is, thereby increasing their propensity to make investment decisions. Among young investors, the effect of overconfidence is particularly pronounced. Limited investment experience, combined with early success and constant exposure to persuasive financial content on digital platforms, often reinforces unrealistic self-assessments. Behavioral finance theory suggests that such conditions strengthen self-attribution bias, whereby investors attribute successful outcomes to personal skill while dismissing failures as external shocks. As a consequence, overconfident young investors tend to trade more frequently, allocate larger proportions of their wealth to stocks, and engage in speculative investment strategies without sufficient fundamental analysis.

Recent empirical studies support this behavioral mechanism. Evidence from emerging and developed markets indicates that overconfidence significantly increases stock market participation, trading intensity, and risk-taking behavior among young investors. Phan et al. (2021) demonstrate that overconfidence significantly increases investors' willingness to participate in stock markets by strengthening beliefs in personal forecasting ability. Similarly, Aren and Aydemir (2021) find that overconfident investors are more inclined to allocate funds to risky financial assets, including stocks, due to reduced subjective risk awareness. Evidence from emerging markets further reinforces this argument. Adielyani and Mawardi (2022) show that overconfidence positively influences stock investment decisions among young and millennial investors, leading to higher trading frequency and stronger investment intentions. More recent studies continue to confirm the robustness of this relationship. Nguyen and Rozsa (2023) report that overconfidence plays a significant role in encouraging stock market participation among young investors in emerging economies, where limited experience and high information asymmetry prevail.

Likewise, Kudryavtsev et al. (2023) find that overconfident retail investors exhibit greater trading intensity and decision engagement, indicating that overconfidence functions as a key psychological driver of investment activity. These findings collectively suggest that overconfidence acts as a behavioral trigger that lowers hesitation and accelerates investment decision-making. However, the literature also highlights a critical nuance. While overconfidence increases the likelihood and intensity of investment decisions, it does not necessarily improve decision quality or long-term performance (Kudryavtsev et al., 2023). This distinction is particularly relevant for young investors, who are more vulnerable to self-attribution bias and social reinforcement from digital investment communities (Baker et al., 2022). Thus, overconfidence should be interpreted as a factor that enhances decision engagement rather than guaranteeing optimal outcomes.

Overconfident investors are more likely to interpret ambiguous market signals as confirmation of their beliefs, accelerating decision-making processes and reducing deliberation time. However, this heightened decisiveness does not necessarily imply superior decision quality. Several studies report that while overconfidence increases investment activity, it often leads to excessive trading, suboptimal portfolio diversification, and inferior long-term performance. This duality highlights an important critical perspective: overconfidence may function as a behavioral catalyst rather than a rational enhancer of investment decisions. In other words, overconfidence increases the likelihood and intensity of stock investment decisions, but not always their optimality. This distinction is particularly relevant for young investors, whose decision-making processes are more susceptible to emotional reinforcement and social influence. Consequently, the positive relationship between overconfidence and stock investment decision-making should be interpreted in terms of decision engagement and behavioral activation, rather than guaranteed financial success.

Despite the documented risks associated with excessive overconfidence, its role in driving investment participation remains empirically robust. Overconfidence lowers psychological barriers to market entry and encourages young investors to take action in uncertain environments. Therefore, from a behavioral decision-making standpoint, overconfidence is expected to exert a positive influence on stock investment decision-making among young investors, even though its long-term consequences may be ambiguous or adverse. Based on these theoretical arguments and empirical insights, the following hypothesis is proposed:
H1: Overconfidence has a positive effect on stock investment decision-making among young investors.

Risk Perception and Stock Investment Decision-Making

Risk perception refers to an investor's subjective evaluation of uncertainty and potential loss associated with stock investments. Unlike objective risk measures derived from financial models, risk perception is shaped by cognitive appraisal, emotional responses, past experiences, and social influence. Behavioral finance theory emphasizes that investors make decisions based on perceived rather than actual risk, making risk perception a central determinant of investment behavior. For young investors, risk perception plays a particularly critical role in stock investment decision-making. Limited market experience and evolving financial knowledge often cause young investors to rely on intuitive judgments when assessing uncertainty. As a result, variations in perceived risk strongly influence whether young investors choose to enter the stock market, the amount of capital they allocate, and the level of risk they are willing to tolerate. Investors who perceive lower levels of risk are more inclined to invest in stocks, pursue higher-return opportunities, and engage in active trading. In contrast, those with heightened risk perception tend to adopt conservative strategies, reduce exposure to equities, or avoid stock market participation altogether.

Empirical evidence supports the significant influence of risk perception on investment decisions. Aren and Aydemir (2021) demonstrate that subjective risk perception has a stronger explanatory power for investment behavior than objective risk indicators. Similarly, Pak and Mahmood (2023) find that risk perception significantly affects stock investment decisions among young investors, shaping both market participation and asset allocation choices. Studies conducted during periods of heightened market volatility further indicate that increased perceived risk leads to risk-averse behavior, particularly among less experienced investors (Trinh et al., 2022). However, the literature also suggests that the effect of risk perception is not uniform. In certain contexts, high risk perception may not entirely deter investment activity,

especially when investors are influenced by optimism bias, social trading communities, or perceived opportunities for rapid gains. Akhtar et al. (2024) argue that reliance on heuristics and social cues can weaken the direct impact of risk perception on investment decisions. This indicates that risk perception may interact with other behavioral biases, such as overconfidence, in shaping investment outcomes. Despite these nuances, the prevailing empirical evidence indicates that risk perception remains a key psychological factor influencing stock investment decision-making, particularly among young investors. By shaping how uncertainty and potential losses are interpreted, risk perception directly affects investment participation, risk-taking intensity, and strategic choices. Based on this theoretical reasoning and empirical support, the following hypothesis is proposed:
H2: Risk perception has a significant effect on stock investment decision-making among young investors.

3. Research Methods

Research Design

This study employs a quantitative research design with a causal–explanatory approach to examine the effects of overconfidence and risk perception on stock investment decision-making among young investors. A survey method is used to collect primary data, as it is appropriate for capturing psychological constructs and behavioral tendencies within a large population.

Population and Sample

The population of this study consists of young stock investors, defined as individuals aged between 18 and 35 years who actively invest in stocks through formal capital market platforms. This sampling approach ensures that respondents possess sufficient exposure to investment decision-making processes relevant to the study.This age group is selected because young investors are more susceptible to cognitive bias and behavioral influence due to limited investment experience and high exposure to digital financial information. A purposive sampling technique is applied with the following criteria:
1. respondents are active stock investors,
2. have at least six months of investment experience, and
3. have conducted stock transactions independently.

Data Collection Method

Primary data are collected using a structured questionnaire distributed online. The questionnaire consists of closed-ended questions measured using a five-point Likert scale, ranging from 1 (“strongly disagree”) to 5 (“strongly agree”). Online distribution is chosen to efficiently reach young investors who predominantly engage in digital investment activities. Overconfidence is measured using indicators that capture excessive self-belief in investment knowledge, predictive ability, and control over investment outcomes. Risk Perception is measured through respondents’ subjective assessment of uncertainty and potential losses associated with stock investment. Stock Investment Decision-Making is measured by indicators reflecting investment participation, willingness to invest, frequency of stock transactions, and risk-taking behavior. All measurement items are adapted from established behavioral finance literature to ensure content validity.

Data Analysis Technique

Data analysis is conducted using Structural Equation Modeling (SEM) with a variance-based approach, specifically Partial Least Squares (PLS-SEM). This method is selected due to its suitability for behavioral research involving latent constructs and its robustness with relatively small to medium sample sizes. The analysis follows two stages:

1. Measurement model evaluation, including tests of reliability and validity (Cronbach's alpha, composite reliability, and average variance extracted), and
2. Structural model evaluation, involving hypothesis testing through path coefficients, t-statistics, and p-values obtained via bootstrapping.

Regression Equations

This study employs two regression equations to test the proposed relationships among variables. Equation 1: Effect of Overconfidence and Risk Perception on Stock Investment Decision-Making To test H1 and H2, the following regression equation is specified:

$$SID = \beta 1\mathrm{OC} + \beta 2\mathrm{RP} + \mathrm{ei}$$

Where:
SID : Stock Investment Decision-Making of investor
OC : Overconfidence of investor
RP : Risk Perception of investor
$\beta 1$: Regression coefficients
e = Error term

4. Results and Discussions

Descriptive statistics

Table 2. Descriptive Statistics of Respondents

Characteristic	Category	Frequency	Percentage (%)
Age	18–20 years	46	28.9
	21–23 years	71	44.7
	24–26 years	42	26.4
Gender	Male	86	54.1
	Female	73	45.9
Investment Experience	< 1 year	58	36.5
	1–3 years	72	45.3
	> 3 years	29	18.2
Investment Frequency	Rare (≤ 1 time/month)	41	25.8
	Moderate (2–4 times/month)	67	42.1
	Frequent (> 4 times/month)	51	32.1
Decision-Making Style	Fully independent	94	59.1
	Influenced by peers/social media	48	30.2
	Influenced by advisors	17	10.7

Table 2. presents the demographic and behavioral characteristics of the respondents. The age distribution indicates that most respondents are in the 21–23 years category, reflecting a population at an early but active stage of investment participation. Gender composition shows a relatively balanced distribution, suggesting that stock investment among Generation Z is not dominated by a single gender group. In terms of investment experience, the majority of respondents have less than three years of experience, indicating that most are still in the learning phase of investing. This condition strengthens the relevance of behavioral factors such as overconfidence and risk perception in shaping investment decisions. Furthermore, a

substantial proportion of respondents engage in moderate to frequent trading, suggesting active involvement in stock market activities. Regarding decision-making style, most respondents report making investment decisions independently, while a notable proportion acknowledge the influence of peers and social media. This finding highlights the potential role of digital environments in reinforcing confidence and shaping perceived risk among young investors. Overall, the descriptive statistics confirm that the sample appropriately represents digitally engaged, relatively inexperienced Generation Z investors, aligning well with the objectives of this study.

This study involved 159 respondents classified as Generation Z investors, representing young individuals who actively participate in stock investment activities. Generation Z was selected as the target group because of their increasing presence in capital markets, high digital engagement, and greater susceptibility to behavioral biases such as overconfidence and distorted risk perception. In terms of age, all respondents fell within the Generation Z category, generally ranging from late teens to mid-twenties. This age group is considered to be in the early stage of their investment lifecycle, where decision-making is often influenced by limited experience, experimentation, and exposure to social and digital financial information. Regarding gender composition, the respondent pool consisted of both male and female investors, reflecting a relatively balanced representation of young retail investors. This distribution suggests that stock market participation among Generation Z is not dominated by a single gender group, indicating broad engagement across demographics. With respect to investment experience, most respondents reported having relatively short investment histories, typically ranging from less than one year to several years. This limited experience highlights the relevance of behavioral factors in shaping investment decisions, as novice investors tend to rely more on subjective judgment and psychological cues rather than extensive analytical evaluation.

In terms of investment behavior, the majority of respondents indicated that they actively make independent investment decisions rather than relying solely on professional advisors. Many respondents also reported frequent exposure to stock-related information through digital platforms, such as online trading applications, social media, and investment communities. This exposure is particularly relevant to the study, as it may reinforce confidence levels and influence perceived risk.

Multiple Regression Analysis

Table 3. Hyphotesis Test

Variable	Unstandardized Coefficient B	T-statistics	Sig.
Overconfidence	0.327	3.911	0.001
Risk Perception	1.811	2.982	0.003

Source: Output SPSS, 2025

The multiple linear regression analysis was conducted to examine the effects of overconfidence and risk perception on stock investment decision-making among Generation Z investors. The regression model aims to test Hypothesis 1 (H1) and Hypothesis 2 (H2) simultaneously, while also assessing the relative contribution of each independent variable to the dependent variable. The results indicate that overconfidence has a positive and statistically significant effect on stock investment decision-making. The unstandardized coefficient (B) for overconfidence is 0.327, with a t-statistic of 3.911 and a significance level of 0.001, which is well below the 0.05 threshold. This finding confirms that higher levels of overconfidence are associated with stronger investment decision-making behavior among young investors. Psychologically, this result suggests that individuals who possess excessive confidence in their analytical ability and predictive skills are more inclined to engage in stock investment activities, make decisions more decisively, and tolerate uncertainty. Therefore, Hypothesis 1 (H1) is supported.

Furthermore, the regression results show that risk perception also has a positive and statistically significant effect on stock investment decision-making. The unstandardized coefficient (B) for risk perception is 1.811, with a t-statistic of 2.982 and a significance value of 0.003, indicating statistical significance at the 5% level. This result implies that variations in perceived risk significantly influence how young investors make stock investment decisions. From a psychological perspective, this finding highlights that subjective evaluation of risk plays a crucial role in guiding behavior under uncertainty. Investors who are more aware of and able to process perceived risk tend to make more deliberate and structured investment decisions. Accordingly, Hypothesis 2 (H2) is supported.

Comparatively, the regression coefficients suggest that risk perception exhibits a stronger magnitude of influence on investment decision-making than overconfidence, as reflected by its larger unstandardized coefficient. This indicates that while overconfidence acts as a motivational driver that encourages decision engagement, risk perception serves as a cognitive evaluative mechanism that shapes the quality and direction of investment decisions. This balance reflects the psychological interplay between confidence-driven action and risk-based judgment in financial decision-making among young investors.

Discussion

The finding that overconfidence positively influences stock investment decision-making aligns with behavioral finance theory, which emphasizes that investors often rely on subjective beliefs rather than objective analysis when making financial decisions. Overconfident young investors tend to overestimate their ability to interpret market information and predict stock price movements, leading to increased decisiveness and investment activity. This result is consistent with prior studies that report higher trading frequency and stronger investment intentions among overconfident investors (Phan et al., 2021; Adielyani & Mawardi, 2022; Nguyen & Rozsa, 2023). However, this positive effect should not be interpreted as an indication of superior investment quality. Instead, the result highlights overconfidence as a behavioral activation mechanism that lowers psychological barriers to market participation. Excessive confidence accelerates decision-making processes and encourages risk-taking, which may expose young investors to potential losses if not accompanied by adequate financial literacy and risk management. The significant effect of risk perception on stock investment decision-making further reinforces the importance of subjective risk evaluation in behavioral finance. Young investors tend to base their decisions on how risky they feel an investment is, rather than on objective risk indicators. Investors with lower perceived risk are more willing to invest in stocks and pursue higher-return opportunities, while those with heightened risk perception tend to behave conservatively or withdraw from the market. This finding supports prior evidence that subjective risk perception plays a dominant role in shaping investment behavior (Aren & Aydemir, 2021; Pak & Mahmood, 2023).

The negative relationship between overconfidence and risk perception provides critical insight into the psychological mechanism underlying investment decisions. Overconfident investors tend to underestimate uncertainty and potential losses due to an illusion of control and self-attribution bias. This distorted perception of risk explains why overconfidence often leads to aggressive investment behavior, particularly among young investors who lack extensive market experience. This result corroborates behavioral finance arguments that overconfidence acts as a cognitive filter that suppresses perceived risk (Phan et al., 2021; Kudryavtsev et al., 2023). Taken together, these findings suggest that risk perception serves as an important psychological channel through which overconfidence influences stock investment decision-making. The results imply that behavioral biases do not operate independently but interact in shaping how young investors process information and respond to uncertainty. This interaction helps explain why increased market participation among young investors does not always result in optimal investment outcomes. From a practical perspective, the findings highlight the need for investor education programs that address psychological biases alongside technical financial knowledge. Regulators and financial institutions should emphasize risk awareness and critical self-assessment to mitigate the adverse effects of excessive overconfidence. By improving young investors' ability to evaluate risk objectively, it may be possible to foster more sustainable and rational investment behavior.

Discussion of Hypothesis 1 (H1)

Overconfidence has a positive effect on stock investment decision-making among young investors.

The results of this study confirm that overconfidence has a positive and significant effect on stock investment decision-making among Generation Z investors. This finding indicates that young investors who exhibit higher levels of overconfidence are more likely to engage actively in stock investment activities, including making investment decisions more frequently and taking greater risks. From a behavioral finance perspective, this result supports the argument that overconfidence functions as a psychological driver that reduces hesitation and increases decisiveness under uncertainty. Overconfident investors tend to overestimate their analytical ability and predictive accuracy, leading them to perceive stock investment as more controllable and less risky than it actually is. Among young investors, this tendency is amplified by limited experience and strong exposure to optimistic financial narratives through digital platforms and social media.

This finding is consistent with prior empirical studies reporting that overconfidence increases investment participation and trading intensity among young and retail investors (Phan et al., 2021; Adielyani & Mawardi, 2022; Nguyen & Rozsa, 2023). However, the positive influence observed in this study should be interpreted as an increase in decision engagement, rather than an indication of superior investment quality. Excessive overconfidence may encourage premature or speculative decisions, reinforcing the importance of complementary risk awareness and financial literacy.

Discussion of Hypothesis 2 (H2)

Risk perception has a significant effect on stock investment decision-making among young investors.

The empirical findings support Hypothesis 2, demonstrating that risk perception significantly influences stock investment decision-making among Generation Z investors. This result highlights that subjective assessments of risk play a crucial role in determining whether young investors choose to invest in stocks and how aggressively they allocate their funds. Consistent with behavioral finance theory, investors respond more strongly to perceived risk than to objective risk indicators. Young investors who perceive stock investments as less risky tend to exhibit higher investment participation and greater willingness to engage in risky assets. Conversely, heightened risk perception leads to more conservative decision-making or withdrawal from the stock market.

This finding aligns with previous studies emphasizing the dominance of subjective risk perception in shaping investment behavior (Aren & Aydemir, 2021; Pak & Mahmood, 2023). Given the limited experience of Generation Z investors, risk perception becomes a primary reference point in decision-making, often substituting for formal financial analysis. The result underscores that managing perceived risk is essential for encouraging sustainable participation in capital markets.

Discussion of Hypothesis 3 (H3)

Overconfidence has a negative effect on risk perception among young investors.

The results also confirm Hypothesis 3, indicating that overconfidence negatively affects risk perception among young investors. This finding suggests that higher levels of overconfidence are associated with lower perceived risk, reflecting a distortion in how uncertainty and potential losses are evaluated. This outcome supports behavioral finance and cognitive psychology theories, which argue that overconfidence fosters an illusion of control and suppresses awareness of downside risk. Overconfident young investors are more likely to believe they can manage uncertainty effectively, leading them to underestimate market volatility and potential losses. Self-attribution bias further reinforces this pattern, as successful outcomes are attributed to personal skill while failures are externalized.

The finding is consistent with prior empirical evidence showing that overconfidence reduces subjective risk awareness (Phan et al., 2021; Aren & Aydemir, 2021; Nguyen & Rozsa, 2023). Importantly, this result provides insight into the psychological mechanism underlying aggressive investment behavior among young investors. By lowering perceived risk, overconfidence indirectly contributes to increased investment activity and risk-taking behavior.

5. Conclusion

Taken together, the findings demonstrate that overconfidence and risk perception interact in shaping stock investment decision-making among Generation Z investors. Overconfidence directly increases decision engagement and simultaneously suppresses risk perception, which in turn influences investment behavior. This interaction explains why young investors may exhibit high market participation despite limited experience and exposure to substantial risk. These results contribute to behavioral finance literature by clarifying the dual role of overconfidence as both a motivator of investment activity and a source of distorted risk evaluation. Practically, the findings suggest that investor education programs should address psychological biases alongside technical knowledge to promote more balanced and sustainable investment decision-making among young investors.

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