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Research Article

Socio Psychological Effect in Investment Decision-Making Mediated by Risk Tolerance

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ABSTRACT

Introduction: Investment decision-making is not solely based on rational financial analysis; it is increasingly influenced by socio-psychological factors such as investor behavior, emotions, social norms, and cognitive biases. Understanding how these factors operate is crucial for comprehending investor behavior, especially in volatile markets.

Objectives: This research aimed to analyze how social psychological aspects, including anxiety, positive mood, social media usage, and social interaction, are associated with the investment decision process of stock investors in the Indonesian capital market.

Methods: This research was conducted in four regional areas in Indonesia. This research was conducted in Indonesia because Indonesia's strong collective culture, combined with high social media penetration, creates unique dynamics in information dissemination and investment decision-making. Indonesia's relatively high market volatility also enables research on investors' emotional responses to market fluctuations. Data were collected from 300 retail investors in the Indonesia capital market and was analyzed using the Structural Equation Modeling (SEM) method. The coefficient of determination value showed that 62.4% of investment decisions are explained by anxiety, positive mood, social interaction and social media.

Results: The research findings show that anxiety has a significant negative effect on investment decisions and risk tolerance with p-values of 0.014 and 0.000 respectively. Positive mood does not affect investment decision-making but influences risk tolerance with a p-value of 0.000. Social interaction positively affects both investment decisions and risk tolerance with p-values of 0.005 and 0.000.

Conclusions: Meanwhile, social media has no significant effect on either investment decisions or risk tolerance. Risk tolerance used as an intermediary variable, proved effective in mediating the relationship between anxiety, positive mood, and social interaction. However, this variable did not mediate the connection between social media and investment decisions.

Keywords: Anxiety, Mood, Social, Psychological, Risk, Investment.

INTRODUCTION

Traditionally, investment decisions have been viewed as a purely rational process, based on fundamental and technical analysis. Behavioral finance, as a branch of science that combines psychology and finance, has revealed that investors do not always act rationally and are often influenced by various cognitive biases and social psychological factors in making their investment decisions. Kahneman and Tversky (1979) identified intuitive biases in decision-making that contradict rationality assumptions, which later became the foundation of behavioral economics [1]. The development of behavioral finance studies in the 1990s, which combined psychological and sociological perspectives, helped explain various anomalies in financial markets [2]. De Bondt and Thaler (1985) found investors' tendency to overreact to negative news and underreact to positive news, indicating that stock price fluctuations can be influenced by investor behavior [3]. This phenomenon becomes increasingly relevant in the digital era, where abundant information and intense social interaction through social media can influence investor perceptions and decisions.

Social psychological dynamics play a highly significant role in shaping stock investment behavior in Indonesia, particularly linked to the unique characteristics of society and capital market development. Indonesian society,

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known for its strong collective culture, reflects a tendency to make decisions based on their social group influences. In this digital environment, information circulates quickly and massively, often accompanied by the emergence of financial influencers who have a significant influence on their followers' investment decisions [4]. This condition is complicated by the developing level of financial literacy in Indonesian society, causing many investors to rely on opinions and advice from others without conducting in-depth analysis. The volatile characteristics of the Indonesian stock market are also inseparable from social psychological factors. Panic selling behavior is often triggered by negative sentiments that spread rapidly on social media, while excessive euphoria during bullish trends is often driven by herding effects among investors [5].

These conditions demonstrate that a deep understanding of social psychological aspects becomes crucial in the context of the Indonesian capital market. The interaction between collective cultural characteristics, young investor dominance, digital technology development, and financial literacy levels creates a unique environment that influences how investment decisions are made. This not only impacts individual investors' financial well-being but also potentially affects the stability and efficiency of the Indonesian capital market as a whole.

LITERATURE REVIEW

Social psychology is the study of how and why people think, feel, and act depending on their social context. The main focus of social psychology is to explain the impact of social context variables on individual behavior [6]. Individual behavior can be shaped by a combination of social influences including family dynamics, individual norms, economic status, and religious beliefs along with psychological components such as emotions, thought patterns, and personal convictions. The relationship between psychological factors in investment decision-making can be seen from factors of anxiety, mood, depression, stress, fear, and thought. Meanwhile, social factors tend to be analyzed through social and family interactions, including social media [7], [8].

The theoretical basis used in examining the relationship between social psychology in investment decision-making is prospect theory. Prospect theory explains that personal decisions are influenced by behavioral biases. Additionally, investors are not always rational due to emotional and cognitive biases [1]. The use of risk tolerance as mediation is supported by prospect theory, which shows that individual decisions regarding risk are not always rational. The mediating role of risk tolerance helps explain variations in investment decisions made by investors with different psychological characteristics and social influences in the Indonesian stock market. As a developing country, the Indonesian stock market has high fluctuations, making understanding investor risk tolerance crucial. Risk tolerance/risk perception is the level of risk that investors are willing to bear in making investment decisions. According to [9], risk tolerance is the willingness of investors to bear risk when making investment decisions. Risk tolerance acts as a mediating mechanism between heuristic biases and investment decisions. Slovic, (1986), stated that risk assessment is subjective, as well as influenced by several variables, including psychological, cultural, social, and political factors [10]. According to Moueed and Hunjra, (2020), psychological and social factors influenced investor decision-making in the stock market, with risk perception playing a mediating role [11].

This study uses anxiety to describe psychological factors. This is in line with research conducted by [12], [13], [14]. Anxiety relates to personality differences in respect to the tendency to experience this feeling. Highly anxious individuals are likely to become afraid when faced with threatening situations. In addition, high anxiety levels causes an individual to become anxious in anticipation of danger or threat. This factor plays a critical role in defining the relationship between anxiety and investment decision-making [15]. Several previous research stated that anxiety had a significant impact on investment behavior. Lim and Kim (2019), reported that individuals suffering from high anxiety levels avoid to participate in the stock market preferring low-risk investment. Jabeen et al. (2020), stated that anxiety promoted herding behavior among investors, thereby affecting investment decisions. The research by Bernaola et al. (2021) reported that higher levels was associated with greater reluctance to take risk in investment decisions. Although Rahman and Gan (2020), reported that a negative relationship existed between anxiety and investment risk-taking [16], Ali (2020) found anxiety had a positive impact on decision-making process [17]. The results by Sharma et al. (2023) proved the influence of anxiety on investment decision-making appeared to be stronger in women [18].

Positive mood is an emotional state characterized by pleasant and optimistic feelings experienced by an individual. In the context of investment and financial decision-making, positive mood has several characteristics such as optimistic feelings, high energy levels, positive outlook towards the future, tendency to be more confident, and a relaxed and calm mental state. Empirical results indicate that positive mood has an impact on investment decision-

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making. Individuals with positive moods are more likely to make investment decisions with high risk tolerance, while individuals with bad moods are more likely to avoid making investment decisions [19], [20], [21], [22], [23]. Meanwhile, based on research conducted by (Virlics, 2014), it is stated that mood has an influence on investment decision-making, with both positive and negative moods having the same effect. Other research mentions that positive mood is associated with long-term decision-making, while negative mood leads to rare decision-making [24].

Social interaction forms the basis of dynamic social relationships, including connections between individuals and groups. This factor is fundamental to all aspects of social life, playing an essential role in related activities. Ausat (2023), stated that social interaction, particularly through discussions and conversations with peers, family members, and colleagues, influenced public opinion. Individuals are prone to inspiring and being influenced by the perspectives of those in respective social circles [25]. Han et al. (2021), reported that this factor motivated active investment strategies, with investors tending to discuss the plans to improve returns [26]. In their research, (Manocha et al., 2023) state that social interaction influences investment decision-making [27]. According to (Heimer, 2013), social interaction is more common among active investors compared to passive investors. Informal communication regarding investment strategies tends to be carried out by active investors. This becomes the basis for investment decision-making. In their research, [28] state that individuals with high social relationships will tend to make investment decisions and allocate their funds based on their communication results with others. This is also supported by research from [29] which mentions that coworkers strongly influence individual investment decision-making. Empirical evidence shows that mutual fund managers are influenced by their peers' investment decisions. Fund managers adjust their behavior based on market situations and peer influence [30].

Another important factor is social media, described as internet-based platforms that enables users to interact, cooperate, exchange content, and engage in discussions, leading to the development of virtual individuals. These platforms comprise a wide range of services, such as Facebook, WhatsApp, Twitter, Instagram, YouTube, LinkedIn, various online forums and individuals, as well as other content-sharing websites. According to K Khatik et al. (2021), information obtained from social media has a strong influence on investment interests and decisions of Generation Z [31]. The findings were in line with the research carried out by Solanki et al. (2020), stating that the digital era and tinternet had changed how investors accessed information concerning investment, with online media having a significant impact on the behaviour and decisions taken by these individuals [32]. Rani S and Prerana.M (2021), investigated effect of informative and educational social media content related to investment [4]. Furthermore, it was reported that the content significantly influenced awareness, interest, and investment decisions, particularly among young investors. These results are in line with the research conducted by Mistri and Japee (2020) which showed the substantial role of social media in influencing decisions and investment patterns of small investors [33]. S. Singh and Chakraborty (2024), included a new dimension to this discussion, by reporting that the presence of social media prompted the active participation of investors in the stock market [34]. The research further stated that this factor enabled access to higher quality information, resulting in the improved quality of investment decision-making process.

This research investigated the influence of psychological and social factors, viewed through anxiety, positive mood, social media and social interaction, on investment decision-making, mediated by risk tolerance. In addition, the research contributed to efforts in helping individual investors make more rational and profitable investment decisions. This led to the following proposed hypotheses

H1 = Anxiety has a negative effect on investment decision-making.

H2 = Positive Mood has a positive effect on investment decision-making.

H3 = Social interaction has a positive effect on investment decision-making.

H4 = Social media has a positive effect on investment decision-making.

H5 = Risk tolerance mediates effect of anxiety on investment decision-making.

H6 = Risk tolerance mediates effect of positive mood on investment decision-making.

H7 = Risk tolerance mediates effect of social interaction on investment decision-making

H8 = Risk tolerance mediates the influence of social media on investment decision-making.

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Fundamentally, this socio-psychological concept is inseparable from human life. Therefore, this research attempts to examine the relationship between socio psychological factors in the investment decision making process. Additionally, risk tolerance is also a factor that must be considered in examining the relationship between socio psychological aspects and investment decision making. Thus, the main objective of this research is to analyze the relationship between social psychological factors viewed through anxiety, positive mood, social media, and social interaction in stock investment decision-making in Indonesia, while considering risk tolerance as a moderating element in this relationship.

METHODS

This research is a quantitative study using a survey method. The survey was conducted by distributing online questionnaires to respondents in this study. The population in this study consists of retail investors based on Single Investor Identification (SID). This investigation focuses on retail investors who participate in the Indonesian capital market through stock investments. The sampling technique used in this study is random sampling. The number of samples used in this study is 300 retail stock investors in Indonesia. The respondents used in this study are active investors who have been investing in stocks for a minimum of 1 year. Additionally, the respondents are retail investors who independently manage their investments. The respondents used in this study are over 17 years of age. Respondents were taken from several stock exchange members to facilitate the questionnaire distribution process so that the data obtained is valid and can be used in this study. The distribution of sample numbers according to each regional area is as follows:

Table 1. Number of Samples per Region

No	Regional Area	Total Samples
1.	Regional Area A (Aceh, Riau, Kep. Riau, West Sumatera, North Sumatera)	56
2.	Regional Area B (South Sumatera, Lampung, Kep. Babel, West Kalimantan, Central Java, West Java, Jambi, Jakarta, Yogakarta, Bengkulu, Banten)	162
3.	Regional Area C (Bali, East Java, South Kalimantan, Central Kalimantan, East Kalimantan, North Kalimantan)	69
4.	Regional Area D (Gorontalo, Maluku, Maluku Utara, NTB, NTT, Papua, West Papua, West Sulawesi, East Sulawesi, Central Sulawesi, Southeast Sulawesi, North Sulawesi)	13
	Total	**300**

The research used a meticulously designed seven-point Likert scale to capture nuanced participant responses. The Likert scale used include (1) strongly disagree, (2) disagree, (3) quite disagree, (4) Neutral, (5) somewhat agree, (6) agree, and (7) Strongly agree. In addition, it provided seven graduated levels of response, enabling more precise measurement and minimizing potential data collection errors. By offering participants a comprehensive spectrum of agreement options, the adopted method ensured a more refined and detailed representation of respective attitudes and perspectives. Meanwhile, a detailed explanation of the operational definitions of variables used, are shown in Appendix A.

The investigation carried out Structural Equation Modeling (SEM), using the SmartPLS software for data analysis. This led to the formulation of the following structural equations:

$$RT = \lambda 1anx + \lambda 2anx + \lambda 3anx + \lambda 1mood + \lambda 2mood + \lambda 3mood + \lambda 1si + \lambda 2si + \lambda 1sm + \lambda 2sm + e$$

$$ID = \lambda 1anx + \lambda 2anx + \lambda 3anx + \lambda 1mood + \lambda 2mood + \lambda 3mood + \lambda 1si + \lambda 2si + \lambda 1sm + \lambda 2sm + \lambda 1rt + \lambda 2rt + \lambda 3rt + e$$

The diverse stages of SEM analysis using smartPLS are as follows

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a. Indicator Reliability and Coherent Validity
Outer loadings were used to assess individual indicator performance, and according to Chin, loading factors ranging from 0.5 to 0.6 were considered sufficient (Ghozali & Latan, 2015). The effectiveness of an indicator was confirmed when the Average Variance Extracted (AVE) exceeded 0.5. In addition, AVE quantified the typical proportion of variance scores obtained from a set of latent variables. This measurement was computed using the normalized loadings of the indicators, determined through repeated applications of the Partial Least Squares (PLS) algorithm (Abdillah & Jogiyanto, 2009). The Internal Consistency Reliability was measured by the value of composite reliability, namely the construction is considered reliable if the composite reliability value is> 0.7. Furthermore, the minimum is 0.7, with the ideal value being 0.8 or 0.9. (Sarstedt & Cheah, 2019).

b. Variance Inflation Factors (VIF)
The structural model was evaluated by identifying the existence of collinearity between constructs. This was aimed at avoiding multicollinearity, a phenomenon where two or more independent variables that are highly correlated, led to the poor predictive ability of the model. According to Sarstedt and Cheah, (2019), multicollinearity determined using SmartPLS was observed in the VIF value of <5.

c. Coefficient of Determination (R2)
The inner or structural model, was evaluated by examining the clarified variance percentage, specifically through the R2 value. This metric assessed the extent to which exogenous constructs were used to explain endogenous variables. SmartPLS software was used to perform R2 calculations, with results typically ranging from zero to one. According to Chin, Ghozali and Latan (2015), the criteria for an R2 of 0.67, 0.33, and 0.19 was referred to as a strong, moderate and weak construction.

d. Goodness of Fit
The model fit was assessed using the Standardized Root Mean Square Residual (SRMR), interpreted by examining the value. If the figure obtained is less than 0.10 or 0.08, the value is typically considered indicative of a good fit (Hu and Bentler, 1999).

e. Direct and Indirect Effect Analyses
The strength of relationships or influences between constructs were examined in multiple ways direct, indirect and total. The direct effect was quantified by the coefficient of a one-way arrow connecting two constructs. However, the indirect effect manifested through an intermediary variable, existing between constructs that are not directly connected by a one-way arrow. Total relationships comprised both direct and indirect effect between constructs.

In addition, the framework for the research model is shown in the following figure.

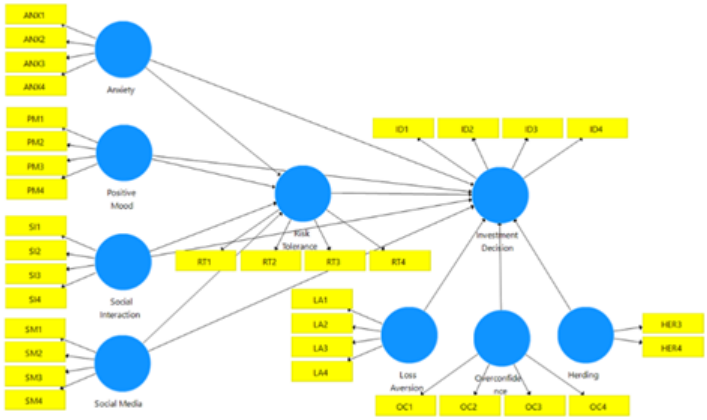

Figure 1. Research Model

RESULTS

Respondent Profile

The acquired data regarding the profile of the respondents used in this research, was presented as follows.

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Table 2. Respondent Profile

Profile	N	Percentage (%)
Gender		
Male	197	66
Female	103	34
Age		
20-29	174	58
30-39	74	25
40-49	38	13
50-59	12	4
60-69	2	1
Regional Area		
Regional A	56	19
Regional B	162	54
Regional C	69	23
Regional D	13	4
Last Education		
High School	26	9
S1	262	87
S2	12	4
Job		
Student	35	12
Private Employee	131	44
Civil Servant	37	12
Entrepreneur	78	26
Housewife	7	2
Law Enforcement	2	1
Profession	10	3
Income Per Month (Rp)		
1.000.000-3.999.999	70	23
4.000.000-6.999.999	110	37
7.000.000-9.999.999	52	17
>10.000.000	68	23

Based on the respondent profile data, 66% of stock investors in Indonesia are males aged between 20-29 years. Most stock investors are domiciled in regional B area which includes South Sumatra, Lampung, Bangka Belitung Islands, West Kalimantan, Central Java, West Java, Jambi, Jakarta, Yogyakarta, Bengkulu, and Banten. Based on their educational background, 87% of respondents in this study have a Bachelor's degree. In terms of occupation, most stock investors work as private employees, accounting for 44%, with a monthly income of Rp 4,000,000 - Rp 6,999,999.

Indicator Reliability and Coherent Validity

Outer loadings showed the loading factor for each indicator, which is considered highly valid and appropriate when the loading factor surpassed 0.7. The validity was also determined when the AVE exceeded 0.5. In order to assess Internal Consistency Reliability, the composite reliability value was determined. A construct was considered reliable if the composite reliability value is greater than 0.7. Meanwhile, 0.7 is the minimum acceptable value, with 0.8 or 0.9 regarded as ideal scores. The following are the results of outer loading, construct reliability and validity.

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Table 3. Outer Loadings, Construct Reliability and Validity

Variable / Item	Loading	Cronbach's α	CR	AVE
Anxiety		0,874	0,911	0,72
ANX1	0,911			
ANX2	0,883			
ANX3	0,849			
ANX4	0,743			
Positive Mood		0,891	0,924	0,753
PM1	0,829			
PM2	0,900			
PM3	0,874			
PM4	0,866			
Social Interaction		0,906	0,934	0,779
SI1	0,910			
SI2	0,882			
SI3	0,871			
SI4	0,868			
Social Media		0,945	0,959	0,855
SM1	0,952			
SM2	0,897			
SM3	0,948			
SM4	0,900			
Risk Tolerance		0,905	0,933	0,778
RT1	0,865			
RT2	0,879			
RT3	0,901			
RT4	0,882			
Investment Decision		0,837	0,891	0,673
ID1	0,832			
ID2	0,854			
ID3	0,857			
ID4	0,732			

The loading factor value for all variables, including exogenous, endogenous and mediating constructs has a value greater than 0.7. This showed that all indicators were valid and suitable for use. The Cronbach α and AVE values for all variables is greater than 0.6 and 0.5, respectively. This implied that the figure showed a fairly good level of convergent validity. On average, the latent variable can explain more than fifty percent of the variation detected in respect to measuring the indicators. The results of the test showed that the composite reliability for all variables is greater than 0.8. This showed that all variables used were reliable and ideal. Therefore, the measuring instruments adopted in this research tend to be reliable.

VIF

Sarstedt and Cheah, (2019), stated that multicollinearity using SmartPLS can be observed in the VIF value <5. The following are the results of the test conducted.

Table 4. VIF

Variable	Investment Decision	Risk Tolerance
Anxiety	1,529	1,183
Positive Mood	1,789	1,459

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Risk Tolerance	2,208	
Social Interaction	1,485	1,375
Social Media	1,175	1,131

The results of the VIF showed that the relationship between exogenous and endogenous variables must have a value of <5. This showed that the variables do not experience multicollinearity problems or highly correlated. Having no multicollinearity in statistical analysis is essential because it leads to dependable regression coefficient estimates, creates a stable model framework, enables clear assessment of each independent variable's role, and maintains statistical integrity by preventing bias.

Coefficient of Determination (R2) and Cross Validated Redundancy (Q2)

Chin stated that R2 values of 0.67, 0.33 and 0.19 were referred to as strong, moderate and weak construction, respectively. The results of the coefficient of determination and cross validated redundancy are shown in the following table.

Table 5. Coefficient of Determination (R2) and Cross Validated Redundancy (Q2)

	R Square	R Square Adjusted	Q^2 (=1-SSE/SSO)
Investment Decision	0,624	0,612	0,406
Risk Tolerance	0,376	0,366	0,285

The coefficient of determination showed that investment decisions could be analyzed using anxiety, positive mood, social interaction, and media variables with an R2 value of 0.624, showing strong relationship. In addition, risk tolerance variable was explained using anxiety, positive mood, social interaction, and media with an R2 value of 0.376, implying moderate relationship. The results of the Q2 for investment decision and risk tolerance variables had values of 0.406 and 0.285, respectively. Both variables also had a Q2 >0 value showing that the model had good predictive relevance.

Effect Size (f2)

The interpretation of the f2 value was reported as follows f2 = 0.02, 0.15, and 0.35 showing small, moderate, and large effect, respectively. The results of f2 are shown in the following table.

Table 6. Effect Size (f2)

Variable	Investment Decision	Effect Size	Risk Tolerance	Effect Size
Anxiety	0,002	Small Effect	0,089	Medium Effect
Positive Mood	0,012	Small Effect	0,109	Medium Effect
Risk Tolerance	0,185	Medium Effect		
Social Interaction	0,009	Small Effect	0,052	Small Effect
Social Media	0,001	Small Effect	0,007	Small Effect

Based on the f2 value, anxiety, positive mood, social interaction, and media had a small effect on investment decisions, while risk tolerance had a medium size effect. Anxiety and positive mood variables had a medium size effect on risk tolerance, with social interaction and media having a small size effect. Medium and small effects indicate that exogenous variables influence endogenous variables, although their impact remains limited and minimal. These findings provide a deeper understanding of the dynamics between variables in the context of investment decision-making, where internal factors such as risk tolerance and psychological conditions play a more dominant role compared to external factors such as social interaction and media influence.

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Goodness of Fit

The SRMR was interpreted in accordance with the numerical value, or figures less than 0.10 or 0.08 generally considered acceptable. In 2014, Henseler introduced SRMR as a metric for assessing goodness of fit in Partial Least Squares Structural Equation Modeling (PLS-SEM), designed to help prevent model misspecification. The outcomes of the goodness of fit assessment are shown in the following table.

Table 7. Model Fit

	Saturated Model	Estimated Model
SRMR	0,063	0,078
Criteria	Model Fit	Model Fit

Based on the results obtained, it was observed that both the saturated and estimated model values were less than 0.10 or 0.08. This showed that a fit model was used, to avoid model specification errors. Additionally, the structural model had excellent abilities in explaining data and could be relied on for decision-making.

Direct and Indirect Effect Analyses

In statistical analysis, the relationship between the P-value and predetermined significance level, was typically 5% ($\alpha = 0.05$). When the P-value is less than or equal to 0.05, it was inferred that the independent variable had a statistically significant partial effect on the dependent variable, considering a 5% chance of error. However, if the P-value exceeds 0.05, the independent variable does not have a statistically significant partial effect on the dependent variable at a 5% error level. These interpretations are applicable to both direct and indirect effect, commonly presented in the following statistical tables.

Table 8. Direct Effect

	Original Sample (O)	Sample Mean (M)	P Values	Result
Anxiety -> Investment Decision	-0,138	-0,138	0,007	Negative significant
Anxiety -> Risk Tolerance	-0,256	-0,257	0,000	Negative significant
Positive Mood -> Investment Decision	0,212	0,211	0,011	Positive Significant
Positive Mood -> Risk Tolerance	0,314	0,319	0,000	Positive Significant
Social Interaction -> Investment Decision	0,155	0,154	0,035	Positive Significant
Social Interaction -> Risk Tolerance	0,211	0,207	0,000	Positive Significant
Social Media -> Investment Decision	0,003	0,002	0,954	Not significant
Social Media -> Risk Tolerance	0,071	0,072	0,130	Not significant
Herding -> Investment Decision	-0,027	-0,019	0,584	Not significant
Loss Aversion -> Investment Decision	0,278	0,277	0,001	Positive Significant
Overconfidence -> Investment Decision	0,118	0,126	0,138	Not significant

The analysis of direct effect showed that anxiety negatively impacted investment decisions with an original sample value of -0,138 and p value of 0,007 < 0,05. The acceptance of H1 demonstrates that investment decisions can be impacted by psychological elements, specifically the role of anxiety in shaping how individuals choose to invest. Anxiety also had a negative effect on risk tolerance with an original sample value of -0,256 and p value of 0,000 <

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0,05. Anxiety has a negative effect on risk tolerance because when someone feels anxious, they tend to view situations from a more pessimistic and defensive perspective.

Positive mood has a positive influence on investment decision-making with an original sample value of 0.212 and p-value of 0.011<0.05. This result indicates that H2 in this research is acceptable and explains that stock investors' investment decisions can be influenced by positive mood, which is one of the psychological factors. Additionally, positive mood also has a positive and significant effect on risk tolerance with an original sample value of 0.314 and p-value of 0.000<0.05. This result also shows that positive mood not only has a positive influence on investment decisions but also affects risk tolerance.

The research results show that social interaction has a significant positive effect on investment decision-making with an original sample value of 0.155 and p-value of 0.035<0.05. This proves that H3 in this study is acceptable, which means that investment decision-making can be influenced by social factors as demonstrated through social interaction. Furthermore, social interaction also has a positive effect on risk tolerance with an original sample value of 0.211 and p-value of 0.000<0,05. It can be concluded that social interaction, as one of the social factors, influences both investment decision-making and risk tolerance.

Social media as one of the social factors shows different results. Social media does not have a significant influence on investment decision-making, nor on risk tolerance. This is evidenced by the p-value > 0.05. Thus, it can be concluded that H4 in this study is rejected.

Among the control variables (herding, loss aversion, and overconfidence), only loss aversion showed a remarkable influence on investment decisions compared to other exogenous variables used in the research. These results outlined the complex interplay of psychological and social factors in influencing financial decision-making behaviors. An increase of one unit of herding reduced to 2,7% of decision to invest. Meanwhile, an increase of one unit of loss aversion raised investment decisions by 27,8%. An increase of one unit of overconfidence also raised investment decision-making by 11,8%.

Table 9. Indirect Effect

	Original Sample (O)	Sample Mean (M)	P Values	Result
Anxiety -> Risk Tolerance -> Investment Decision	-0,100	-0,098	0,001	Mediated
Positive Mood -> Risk Tolerance -> Investment Decision	0,123	0,122	0,003	Mediated
Social Interaction -> Risk Tolerance -> Investment Decision	0,083	0,080	0,005	Mediated
Social Media -> Risk Tolerance -> Investment Decision	0,028	0,028	0,163	Not Mediated

The research results show that risk tolerance can mediate the relationship between anxiety and stock investment decision-making. This can be seen from the p-value of 0.001<0.05, proving that H5 in this study is acceptable. Risk tolerance acts as a bridge or mediator that explains how a person's feelings of anxiety ultimately affect their investment decisions.

Risk tolerance can also mediate the relationship between positive mood and investment decision-making with a p-value of 0.003<0.05. This proves that H6 is acceptable. Thus, risk tolerance acts as a mechanism that translates the influence of positive mood into actual investment decisions in the stock market.

The research results show that risk tolerance can also mediate the relationship between social interaction and investment decision-making with a p-value of 0.005<0.05. Therefore, H7 in this study is acceptable. Risk tolerance can mediate the relationship between social interaction and stock investment decision-making because social interaction influences how a person views and manages risk in investing. This risk tolerance then influences how investors make investment decisions.

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Risk tolerance cannot mediate the relationship between social media and investment decision-making. This is indicated by the p-value of 0.163 >0.05. Therefore, H8 in this study is not acceptable. The use of social media does not affect how a person views and tolerates investment risk, but rather encourages decision-making based on emotions and momentary trends.

DISCUSSION

In accordance with the analysis conducted, anxiety had a significant negative correlation with investment decision-making among stock investors in Indonesia. This result implied that as anxiety level increases, the propensity to make investment decisions decreases. Individual experiencing high anxiety levels tend to be more hesitant in decision-making, and these results led to the formulation of the first hypothesis (H1). In addition, the results are in line with research conducted by [35], Jabeen et al. (2020), Rahman & Gan (2020), and Sharma et al. (2023). Risk tolerance served as a mediator in the relationship between anxiety and investment decisions. Worry and uncertainty, also influenced how individuals perceived and handled financial risk. Highly anxious individuals typically exhibited lower risk tolerance, showing discomfort with uncertainty and potential investment losses. This risk tolerance played a crucial role in shaping investment choices. Individuals with low risk tolerance tend to opt for more conservative, safer investment options. However, those with higher risk tolerance may be more inclined to accept risk, investing in stocks or other high-risk assets for potentially greater returns. In this context, risk tolerance functions as an intermediary or mediating variable, translating effect of anxiety into tangible investment decisions. It also acts as a bridge, explaining how anxiety impacted investment choices made by individuals. The results are in line with H5, and are supported by several research conducted by [36], [37], [38], [39], [40].

The evaluation of the positive mood variable showed a positive influence on investment decision-making. Individuals with a better mood tend to make decisions more readily. However, those in a poorer mood are less likely to make decisions, or may even avoid decision-making. These results support the second hypothesis (H2), and are in line with previous research by [41], Noval & Stahl (2017), Shu (2010), and Singh (2024). Risk tolerance mediates the relationship between positive mood and investment decision. Positive mood generally increased risk tolerance of an individual. Feelings of happiness or optimism causes individual to become more confident and less worried about potential losses as a result, risk tolerance level increases. This affects investment decisions, and investors with high risk tolerance willingly consider riskier investment options. However, effect is not always immediate, even in positive mood, if the baseline risk tolerance of an individual remains low (e.g. due to personality factors), the person may still prefer more conservative investment. Risk tolerance acts as a mediator between positive mood and actual investment decisions. This explains why two individuals with equally positive mood might make different investment decisions, depending on the risk tolerance variable. The results support H6, and are in line with research by [11], [42], [43], [44], [45].

Based on the results of the research, it showed that social interaction variables affected investment decision-making. The results suggested that social dynamics played a significant role in influencing individual perspectives. Engaging in conversations and interactions with social circle members, including friends, family, and professional associates, can influence the viewpoint of an individual. There is also a tendency for individuals to affect and be affected by the opinions circulating within the immediate social environment. Therefore, social interaction tend to affect investment decision-making, and this supports H3. The results obtained were also in line with the research by Ausat (2023), Han et al. (2021), and [46]. This also showed that risk tolerance mediated the relationship between social interaction and investment decisions. Social interactions with peers, family, or professionals, have the potential to influence the way an individual perceives and assesses risk in investment context. Discussions, information exchange, and exposure to the experiences of others can change personal perception of risk and return potential of various investment options. This change in perception increases or decreases risk tolerance of an individual. Furthermore, with the interaction between individuals, risk tolerance served as a benchmark for evaluating investment choices and the results support H7. The results are in accordance with research conducted by [47], [48], [49], [50].

In this research, social media variables had no effect on investment decisions, because information circulating on the diverse platforms were often unverified, biased, or even misleading. This causes experienced investors to become skeptical, depending more on reliable and verified sources. In addition, there is innumerable information on social

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media, resulting in difficult in terms of selecting the correct and relevant ones. Opinion sentiment on social media often does not reflect actual fundamentals and performance. Even though social media has a wide reach, it had slight influence on investment decisions, specifically for experienced investors. The results showed that H4 was rejected and this was in line with the research by [51], [52], [53]. Risk tolerance as a mediating variable cannot mediate the relationship between social media and investment decisions. Experienced investors are skeptical about information from social platforms, hence the content may not significantly affect risk perception, and these led to the rejection of H8.

CONCLUSION

In conclusion, the research results showed that socio-psychological factors exerted a significant influence on investment decision-making processes of stock investors in Indonesia. Psychological effect were only controlled by the investors because these arose from within each individual like anxiety and positive mood. When an investor was faced with investment decision, decisions need not be made hastily without considering the potential consequences. In addition, interacting with others is one way to obtain information to support the investment decision-making process. Discussions with a mentor or experienced investors also helped broaden insights, improving investment strategies. The relationship between social and psychological effect in investment decision-making was inseparable from risk tolerance level of each individual. Individual suffering from high risk tolerance levels found it easier to make investment decisions, while risk-averse individuals tended to be afraid during the process. This research provided valuable insights into psychological and social dynamics that influenced investment decisions in Indonesia, showing the importance of emotional factors, social interactions, and attitudes towards risky investment behavior.

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