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THE RISKS TO INVESTMENT DECISIONS: CAN FINANCIAL KNOWLEDGE AND INVESTOR'S EXPERIENCE BE MODERATE?

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Abstract:

This research is intended to determine the risk of investment-decisions moderated by investors' knowledge and experience on the Indonesian Stock Exchange (IDX). The object of this research is investors who invest on the IDX with an unknown population, and the number of samples in this research is 210 investors. Data analysis in this research uses an alternative method of structural equation modeling (SEM), namely Smart-PLS 3. The results of the research show that risk aversion and risk perception have a significant positive effect on investment decisions. Financial knowledge cannot moderate the influence of risk aversion on investment decisions. Investment experience can moderate the influence of risk perception on investment decisions. So investment experience can strengthen the significant influence of risk perception on investment decisions. Investors of productive age who are educated with good investment experience are able to show a careful attitude in managing risk perceptions regarding investment decisions.

Key words: Investment Decisions, Risk Aversion, Perceived Risk, Financial Knowledge, Investment Experience.

1. Introduction

Global economic growth is holding up well amidst sharp monetary policy tightening and geopolitical shocks (Ammer et al., 2023). Global issues in 2022 have shaken capital market instruments, such as geopolitical tensions due to the Russia-Ukraine war, China's extension of the coronavirus ban, and rising interest rates in most countries in the world. In contrast, Indonesia's economic conditions have improved this year, allowing it to support the performance of the domestic stock and bond markets (Malik, 2022). Positive achievements in the Indonesian capital market are reflected in the increasing public interest in investing.

The total number of investors in the Indonesian capital market as of December 28, 2022, has increased by 37.5 percent to 10.3 million investors from the previous 7.48 million investors as of the end of December 2021. This number has increased almost 10 times compared to 2017. The surge in growth in the number of retail investors also has an impact on the dominance of retail investors in daily trading activities on the Indonesian

Stock Exchange (IDX), which reaches 44.9 percent (Dewi, 2022). Fluctuations in share prices on the IDX, which are reflected in the JCI movement, are at the lowest level in 2022 at around 6768.3. Meanwhile, the highest level was 7318 on September 13 2022. The last trading day for BEI shares was Friday, December 30 2022, the JCI closed slightly down 9.46 points (0.14%), ranging from 6838 to 6888, with a transaction value of IDR 7.08 trillion (Situmorang, 2022). on March 24, 2020, it was also seen that the JCI experienced.

The average investor has a relatively low tolerance for loss, and because there are now large numbers of average investors who vote, governments are increasingly taking an active interest in this issue so things don't go too bad (Cowell, 2012). Investment decisions are the actions of investors to buy several securities, which are based on several considerations (Monica et al., 2017). Investors avoid large risks by using several approaches or analyses before they decide to buy securities (Saputra et al., 2020). Some investors expressed that it is sometimes difficult to make good investment decisions due to time pressure (Jabeen et al., 2019). So when making investment decisions, individual investors can rely on searching for information and experience (Satti et al., 2013).

Risk is an important component of every investment, so it needs to be analyzed both as an objective component of investment and as a subjective factor in investment decision-making (Virlics, 2013). Individual investors encourage risk-taking, supporting financial market development and economic growth through various channels (Dutta & Mukherjee, 2015). Investors seek to profit from winning stocks because they do not want any investment risk (Ritter, 2003). Research Hossain & Siddiqua, (2022) shows that risk aversion and risk perception are the two emotional dimensions that most influence investor decisions. Risk aversion can indeed be a strong determinant of risk taking, because the exploration of risky investment digital information on the Internet gains investors' trust and helps their economic success (Tseng & Yang, 2011). However, the overall level of risk aversion can fluctuate as a result of changes in the risk aversion of investors as a whole or as a result of the distribution of wealth among risk-averse investors. different changes (Guiso et al., 2018).

Risk aversion according to Boyle et al., (2012); Brooks et al., (2018) increases with age. Hansen et al., (2002); Ilut & Schneider, (2014) consider that; investors hold pessimistic beliefs and faced with a wide range of possible outcomes, act as if the worst outcome were to occur, displaying a behavior known as ambiguity aversion Zhang et al., (2019) links risk aversion to pessimism and rare disasters. An investor who has adequately planned for his financial goals is willing to take higher risks on his investments that are not mapped to his financial achievements (Bhattacharjee et al., 2021). A person is likely to take higher risks if they feel a greater sense of security (R. Singh & Bhattacharjee, 2019). Culture and education according to Singh et al., (2021) are the most important factors that influence the perception of risk in stocks.

Research by Razen et al., (2020) on risk perception between professional and non-professional investors' decision-making concluded that professionals holding losing stocks are more eager than non-professional investors, and they are more reluctant to realize losses in risky decisions. Investors prefer to invest in Blue-chip stocks which have a high value/price trend in the financial market (Ur Rehman & Ali, 2013). Investors investing in blue-chip stocks can reduce perceived risk (Liébana-Cabanillas et al., 2018). Because

on average blue-chip companies have large returns on investment (Casidy & Wymer, 2016). Financial knowledge is a person's mastery of various things about the world of finance.

Investors' financial knowledge is information that is educated, structured, symbolized and accumulated in memory (Alba & Hutchinson, 2000). According to Hirdinis & Lestari, (2021); Cude et al., (2019) and Kim et al., (2019) low financial knowledge has raised concerns. The high level of financial knowledge a person has will tend to have good financial behavior (Iriani et al., 2021). Investors with more knowledge can make investment decisions based on their knowledge and experience (Satti et al., 2013).

Investors can revise, utilize, and recover their knowledge of financial matters and utilize knowledge and information in making interpretations and explanations regarding their investment preferences (Alba & Hutchinson, 2000). In addition, Tang & Baker, (2016) differentiate subjective financial knowledge from objective financial knowledge. Meanwhile, Robb & Woodyard, (2011) show that objective and subjective financial knowledge influences financial behavior, with subjective knowledge having a relatively greater impact. However, according to (Tokar, 2015) individuals with an objective level of financial knowledge may not necessarily have a positive self-perception about their level of knowledge (i.e., subjective knowledge), and as a result may not take appropriate steps to manage finances.

The inconsistency of previous studies on risk aversion and risk perception related to investment decisions can be explained as follows: Arijaya & Basana, (2021) found that the gender variable has a significant relationship with risk aversion in investment decision making. Women are more likely to be risk averse in making investment decisions than men. Farooq & Sajid, (2015); Ahmad & Shah, (2022); Schäfer et al., (2022) found that risk aversion has a significant effect on investment decisions. However, the research results of Adil et al., (2022); Saraswati & Rusmanto, (2022); Putri & Isbanah, 2019) found different results when risk aversion did not influence investment decisions.

Research on the influence of risk perception on investment decisions conducted by Ahmad & Shah, (2022); Schäfer et al., (2022); Ademola et al., (2019) found that risk perception has a significant positive effect on investment decisions. Alice & Haryanto, (2022) found that risk perception has a significant negative effect on investment decisions. Meanwhile, research results (Putri & Isbanah, 2019) found different results where risk perception had no effect on decision making.

An investor with greater knowledge of financial risk, when making investment decisions, will consider calculations more carefully and be more careful in investing (Pertiwi et al., 2020). The research results of (Pertiwi et al., 2020); Atmaningrum et al., (2021) found that financial knowledge has a significant positive effect on investment decisions. However, the research results of Astuti et al., (2022) found different results where financial knowledge had no effect on investment decisions. Ahn & Nam, (2022) research revealed that financial knowledge plays a moderating role. Specifically, a higher level of financial knowledge can assist prevent excessive consumption and managing finances difficulties. Nevertheless, there is current little information on how knowledge of finances affects the moderating impact of risk aversion on investing decisions. Therefore, this study attempts to integrate the direct relationship between risk aversion and financial

knowledge in investment decisions as a moderating variable. In addition to financial knowledge, the next step is investment experience to soften the risk perception of investment decisions.

An investor with more investment experience tends to make decisions according to his intuition (Pertiwi et al., 2020). According to them, from their experience the investment can run well. The results of his research reveal that financial experience has a significant influence on investment decision making. Likewise, research by Ferli et al., (2022); Ademola et al., (2019) found that investment experience has a positive and significant effect on investment decisions. However, the research results of Fachrudin & Fachrudin, (2016) show that experience has no effect on investment decisions.

Because there is a contradiction between the influence of risk perception on investment decisions and the influence of financial experience on investment decisions, this study attempts to integrate the direct influence of risk perception on investment decisions with the moderating variable of investment experience. Researchers seek to develop research concepts on investment risk, with financial knowledge and investment experience as moderating variables, and risk aversion and risk perception as variables that influence investment decisions.

2. Literature Review

Behavioral finance is a very popular behavior in stock markets around the world to determine investment decisions (Bhattacharjee et al., 2021)(Bhatt and Chauhan, 2014). Behavioral finance is the study of the influence of psychology and sociology on financial and stock markets (Pompian, 2017). According to several studies, Cheng, (2022) studied human behavior in financial markets. Loewenstein et al., (2003); Dhungana et al., (2022); Setiawan et al., (2020); Silwal & Bajracharya, (2021); Alwahaibi, (2019)., Why people behave irrationally when making financial decisions and why they do not carry out fundamental analysis. Cheng, (2022) examines investor psychology, referring to various fields, such as psychology, finance, and other social sciences. Pompian, (2017) explains why people buy and sell shares without carrying out basic analysis and make mistakes in their investment decisions.

An article in Forbes, December 2021, stated that: The digitalization of finance, supported by blockchain, has opened up investment opportunities to ordinary investors (Harrigan, 2021). This encouraged individual investors to increase their awareness and comfort with open access to investment in the stock market (Migliorelli & Dessertine, 2019). It means, the investors have taken advantage of investment opportunities with the potential for higher returns and higher risk (Harrigan, 2021).

Prospect Theory is a theory developed by Kahneman & Tversky, (1979) which considers that human behavior is considered strange and contradictory in making decisions and is not always rational. Hodnett & Hsieh, (2012) state that prospect theory is based on cognitive psychology rather than investor rationality. The main focus of prospect theory lies in the idea that investors worry more about prospective losses than prospective gains (Kahneman & Tversky, 2018).

Investment is a number of funds or other resources that are made at this time with the aim of obtaining a number of profits in the future (Azis et al., 2015). Behavioral decision theory

focuses on the phenomenon of decision making divided into uncertain, risky, and decisions under conditions of uncertainty that include ambiguity and uncertainty (Takemura, 2021). According to Singh & Narta, (2020), an investor's decision to invest requires a careful analysis of existing conditions and future market prospects.

Investment Cycle Theory: The theory put forward by Keynes examines how economic cycles influence investment decisions (Ilut & Schneider, 2014). The investment cycle theory states that investors tend to invest more when the economy is growing and less when the economy is slowing. This reflects changes in perceptions of risks and opportunities related to economic cycles.

Tandelilin, (2017) explains that people should make decisions such as how much of their current income should be consumed and how much should be invested according to their preferences. Investment decision making according to Christanti & Mahastanti, (2011); Peteros & Maleyeff, (2013) do not always behave in a way that is consistent with the assumptions made according to the perception and understanding of the information received. Wulandari & Iramani, (2014) explain indicators that can form investment decision making variables are the use of income for risky investments, investments without consideration, investments without guarantees, investments based on intuition/feelings. Pasewark & Riley, (2010) divides investment decisions into four components (namely, risk, payout, company data, and societal criteria) and consists of a total of 14 questions.

Shefrin, (2016) define risk as the effect of uncertainty on objectives. Risk are the possible variability in future project returns, which is related to the financial risk inherent in investment decisions. When individuals take action, they must develop, evaluate, and choose among a set of options or options, where the final decision is based on the level of risk and uncertainty (Baker et al., 2021). A risk-averse investor may be willing to pay a premium to reduce risk (Gozali, 2015). The majority of people avoid risk (risk-averse) when presented with the prospect of financial gain or gain (Kahneman & Tversky, 2018).

Protection Motivation Theory, first introduced by Rogers, (1975), stated that people tend to protect themselves more when they anticipate negative consequences, have a desire to avoid them, and feel they have the ability to take preventive action. Sheeran et al., (2014) found that it increases the element of risk assessment, in the context of equity investments, where an investor makes important decisions about cutting losses. If investors are faced with the situation of losing money in an investment decision, they often take less risky decisions. Markowitz, (1952) considers that an investor is risk averse when he receives more utility from the value of an investment obtained with certainty than from taking an uncertain one. Risk averse can be measured using indicators, namely that individuals act rationally, dare to reject risks, and try to maximize wealth under difficult alternatives (Farooq & Sajid, 2015). Research regarding the influence of risk aversion on investment decisions as a reference was conducted (Ahmad & Shah, 2022); (Schäfer et al., 2023) found that risk aversion has a significant effect on investment decisions.

H1: Risk aversion has a positive effect on investment decisions

Fischhoff et al., (1993) stated that perception is considered as a psychological understanding of physical feelings provided by stimuli from the outside world. Risk perception is a subjective aspect in the decision-making process carried out by individuals when evaluating risk and the level of uncertainty Baker et al., (2017). Risk perception is an

investor's approach to having an understanding and feeling, based on their experience about the risks inherent in an asset Singh & Bhowal, (2011), and plays an important role in making decisions in risky situations (P & Kumar, 2014). Financial risk perception is investors' beliefs, attitudes, judgments, and feelings about the risk nature of investment products (Nguyen et al., 2019). Risk plays a key role in influencing investors' investment decisions (Yang & Qiu, 2005). The decision to shift investment is influenced by investors' perceptions of risk (Lenard et al., 2003). Risk perception, different people move towards or away from different alternatives considered risky or vice versa (Weber & Johnson, 2009). There are three factors that influence risk perception, namely fear psychosis, lack of knowledge, and lack of confidence (Deb & Singh, 2018).

Risk Compensation/Risk Homeostasis Theory states that people tend to take more risks when they feel a greater sense of security. Adjustment of individual risk-taking behavior depending on existing security measures (Wilde, 1998). The greater the perceived benefit from an activity, the lower the perceived risk (Finucane et al., 2000). Lack of confidence regarding the purchase price and sale price of equity shares (Singh & Bhowal, 2011); (MacCrimmon & Wehrung, 1990). Performing high-risk actions repeatedly without adverse consequences eventually becomes desensitized to risk Kasperson et al., (1988); Weyman & Barnett, (2016). Skill in calculating income from equity investments (Deb & Singh, 2018); (R. Singh & Bhowal, 2011). The Rational Bounded Theory first introduced by Simon, (1997); Mintrom, (2015) with his idea that in decision making, individuals' rationality is limited by the information they have, the cognitive limitations of their minds and the limited amount of time they have to make decisions. Difficulty in monitoring macroeconomic, financial and non-financial performance data of companies for equity investment (R. Singh & Bhowal, 2011). Research regarding the influence of risk perception on investment decisions that is used as a reference is research by Ahmad & Shah, (2022); Schäfer et al., (2022) found that risk perception has a significant effect on investment decisions.

H2: Perception of risk has a positive effect on investment decisions

Financial behavior is a person's mastery of various things about the financial world. Iriani et al., (2021), individuals with higher financial knowledge tend to be wiser in their financial behavior when compared to individuals who have lower financial knowledge. Arifin, et.al. (2017); Atmaningrum et al., (2021) stated that financial knowledge has a significant influence on investment decisions. Research on the influence of risk aversion on investment decisions as a reference was carried out by (Ahmad & Shah, 2022); Schäfer et al., (2022) found that risk aversion has a significant effect on investment decisions. Research by Ahn & Nam, (2022) reveals that having more financial knowledge helps reduce excessive consumption and difficulties in managing money.

H3: Financial knowledge can moderate the positive influence of risk aversion on investment decisions

Experience is an event or event that a person feels personally which is the result of stimuli received from the surrounding environment and gives a certain impression to that person (Sina, 2013). Investment experience is an important consideration so that investors are more careful in choosing the type of investment and how much capital to invest (Mandagie et al., 2020). The more investment experience an investor has, the better the

investment decisions they make. Research results Mandagie et al., (2020); Asfira et al., (2019); Khanam, 2017) states that investment experience has a significant influence on investment decisions. This means that if investment experience increases, the investment decisions made will become better. How good an investor makes investment decisions can be based on utilizing experience or managing risk appropriately (Awais et al., 2016). Research regarding the influence of risk perception on investment decisions that is used as a reference is research Ahmad & Shah, (2022); Schäfer et al., (2022) found that risk perception has a significant effect on investment decisions.

H4: Investment experience can moderate the positive influence of risk perception on investment decisions.

The novelty (state of the art) of this research: Developing a research concept regarding investment decisions as a dependent variable using the risk variable which is proxied by risk aversion as an independent variable and the moderating variable of financial knowledge is still very limited. Developing a research concept regarding investment decisions as a dependent variable using a risk variable which is proxied by risk perception as an independent variable and a moderating variable of investment experience specifically carried out in developing countries, which is still very limited.

3. Research methodology

The research design uses causality relationships. A causal relationship is a relationship that is cause and effect, where the independent variable influences the dependent variable (Sekaran & Bougie, 2016). The research includes three different variable categories to analysis: independent, dependent, and moderating variables. Table 1 shows a description of these variables.:

Table 1: Research Variables

Types of variables	Variables	Resources
Independent variable: A variable that explain or influences is the cause of the change or emergence of the dependent variable (Schindler, 2022); (Zikmund et al., 2013).	1. Risk aversion (X ₁) 2. Risk perception (X ₂)	(Farooq & Sajid, 2015) (Areiqat et al., 2019)
The dependent variable: A variable that influences or is a consequence, because of the existence of the independent variable (Sekaran & Bougie, 2016); (Schindler, 2022).	Investment decisions (Y)	(Subash, 2012) (Ogunlusi & Obademi, 2021)
Moderating variables: Variables that influence (strengthen and weaken) the relationship between the independent variable and the dependent variable (William G Zikmund et al., 2010)	1. Financial knowledge (M ₁) 2. Investment experience (M ₂)	(Margaretha & May Sari, 2015) (Mandagie et al., 2020)

MacKinnon (2012) explains the importance of intermediary variables because the central questions in the research are focused on the process of moderating the relationship between variables.

The research population is a generalized area consisting of objects/subjects that have certain quantities and characteristics that are determined by the researcher to be studied and then draw conclusions (Schindler, 2022). The population of this research is investors in Jakarta whose number is unknown because the information was not obtained from any reliable source. Sampling in this study was carried out using the representative method according to Hair et al., (2022), the number of samples depends on the number of indicators multiplied by 5 to 10. The number of samples in this study is: Sample = number of indicators x 10 = 22 indicators x 10 = 220. This research questionnaire was distributed to 300 respondents with 216 questionnaires returned or 72% and 210 questionnaires or 70% filled in correctly and then the questionnaires used in this research were 210 questionnaires.

The results of this research questionnaire reveal the characteristics of respondents in terms of gender, age, education and income. The characteristics of the respondents based on gender, the respondents in the study were dominated by men with a total of 152 people or 72.38%, while female investors numbered 58 people or 27.62%. Respondents aged from 25 years to 45 years were the most numerous, namely 155 respondents or 73.81%. Likewise, the highest percentage of the respondent's education level is simply education, namely 60.95%. Meanwhile, the most dominant investment duration is 5-10 years at 50.48%.

The data collection technique in this research was carried out using field research, namely by distributing questionnaires and library research. A questionnaire is a data collection technique that is carried out by giving a set of questions or written statements to respondents to answer (Sekaran & Bougie, 2016). The questionnaire was distributed using a Google form, which was distributed to the sample via email and social media. Descriptive statistics were calculated using the Microsoft Excel program. Researchers used the Partial Least Square (PLS) method, with data processing was carried out using Microsoft Excel 2019 and Smart-PLS 3.3.3 software. Model evaluation in PLS includes 2 stages, namely evaluation of the outer model and evaluation of the inner model.

4. Research Result

Descriptive statistical explanation of 22 statement items from 210 respondents which can be explained as follows: 1). The instrument for the risk aversion (RA) has the highest mean value in the RA2 indicator with the statement "I refuse to invest in risky businesses/investments" which is 4.36 with a standard deviation value of 0.670 while the lowest mean value is found in RA3 indicator with the statement "The wealth I have must be increased to the maximum" which is 4.02 with a standard deviation value of 0.551. 2). The instrument for the risk perception (RP), the highest mean value is the RP2 indicator with the statement "I am careful with shares that show price fluctuations or unexpected transactions" which is 4.79 with a standard deviation value of 0.502, while the lowest mean value found in the RP5 indicator with the statement "I find the idea of trading on the stock market interesting" which is 4.01 with a standard deviation value of 0.52.

The instrument for the knowledge (KN), the highest mean value is in the KN3 indicator with the statement "I pay debts as soon as possible" which is 4.56 with a standard deviation value of 0.638, while the lowest mean value is in the KN4 indicator with the

statement "I divide my income into savings /investment" which is 4.18 with a standard deviation value of 0.592. 4). The instrument for the experience (EX), the highest mean value is in the EX4 indicator with the statement "I plan the amount of capital used to invest" which is 4.05 with a standard deviation value of 0.749, while the lowest mean value is in the EX2 indicator with the statement; "I always choose the most profitable investment instrument" namely 3.07 with a standard deviation value of 0.742. 5). The instrument for the investment decision (ID), the highest mean value is in the ID4 indicator with the statement "I invest without any guarantee" which is 4.50 with a standard deviation value of 0.801, while the lowest mean value is in the ID3 indicator with the statement "I do investment without consideration" which is 3.61 and the standard deviation value is 0.624.

The results of the Convergent Validity test, it can be seen that the RA3 indicator is on the risk aversion variable with the statement: "The wealth I have must be increased to the maximum", the RP4 indicator is on the risk perception variable with the statement: "I am worried about investing in stocks that have historically performed poorly in trading" and the RP5 indicator on the statement: "I find the idea of trading on the stock market interesting", and ID3 on the investment decision variable with the statement "I invest without consideration" has a loading factor value of less than 0.70. So this indicator must be removed from the model. Based on the adapted convergent validity test, since the loading factor is higher than 0.70, all indicators pass the convergent validity test.

The results of the discriminant validity test showed that the factor loading values of the indicators for each block variable, that is, risk aversion, risk perception, knowledge, experience, and investment decision, were higher factor loading values in the construct. The RA1 indicator loading factor value for risk aversion is 0.899, which is greater than the RA1 loading factor value for: risk perception of 0.801; knowledge of 0.793; experience of 0.820; investment decision of 0.852. Likewise with other indicators, there is a correlation that the loading factor value of each indicator on the variable in its own block has a value greater than the value of the indicators in other blocks, so it can be concluded from the results of the cross-loading analysis that there is no discriminant validity problem.

In table 2, it can be seen that the AVE value for all variables is greater than 0.5 so it can be concluded that there are no convergent validity problems in the model tested in this study. This means that all variables used in this research are declared valid.

Table 2: Average Variance Extracted (AVE) Value

Variable	Composite Reliability	Result
Risk Aversion	0.636	Valid
Risk Perception	0.579	Valid
Knowledge	0.602	Valid
Experience	0.611	Valid
Investment Decisions	0.612	Valid

Source: Data analyzed (2023)

The $\sqrt{\text{AVE}}$ test results for risk aversion were 0.842, risk perception was 0.836, knowledge was 0.869, experience was 0.847, and investment decisions were 0.853, which had a greater value than the correlation between risk aversion and risk perception of 0.824, knowledge of 0.807, experience of 0.816, and investment decisions of 0.822. Based on Table 3: The value of composite reliability for all variables is > 0.7 , meaning that all variables have good reliability and no reliability/ unidimensionality problems were found in the model formed.

Table 3: Composite Reliability & Cronbach's Alpha Test Results

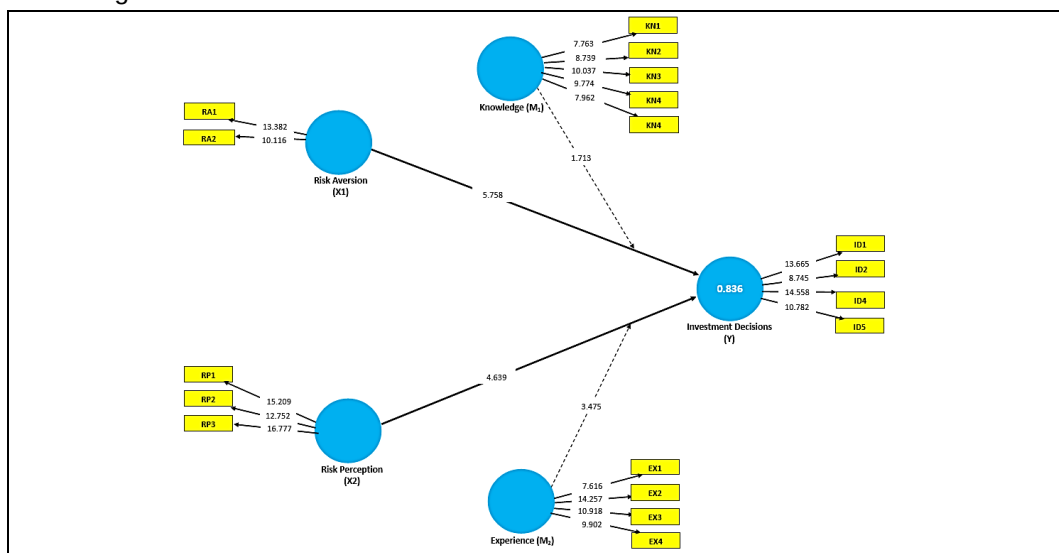
Variable	Cronbach's Alpha	Composite Reliability	Result
Risk Aversion	0,963	0.972	Reliabel
Risk Perception	0,976	0.981	Reliabel
Knowledge	0,952	0.963	Reliabel
Experience	0,942	0,951	Reliabel
Investment Decisions	0,971	0.980	Reliabel

Source: Data analyzed (2023)

The testing steps for the structural model (inner model) are as follows: An R-Square value of 0.75, 0.50, or 0.25 is interpreted as a strong, moderate, or weak model parameter (Hair et al., 2022). Investment decisions can be explained by the variables risk aversion, risk perception, and financial knowledge, investment experience as a moderating variable. In an Adjusted R-Square value of 0.847, this means that all exogenous variables of risk aversion and risk perception influence investment decisions by 84.7% and the remaining 15.3% is influenced by other factors outside the research. Because it has an Adjusted R-Square value = 84.7%, the influence of all exogenous variables of risk aversion and risk perception on investment decisions moderated by financial knowledge and investment experience is included in the strong model category.

Prediction Relevance Test (Q-Square), based on the results of data processing is known that the Q Square value is 0.273 or 27.3%. This result is greater than the value 0, which shows evidence that the observed values have been reconstructed well, thus the model has predictive relevance. Result the Goodness of Fit (GoF) value. The resulting GOF value is 0.523. It can be concluded that the level of suitability between the inner model and the outer model has a large level of feasibility because the GOF value is greater than 0.38. This means that the model has good abilities in explaining data and making predictions, so that overall the model formed is declared feasible.

The construct resulting from processing using the bootstrapping method can be seen in Figure 1 below:

**Figure 1; Bootstrapping Test Results**

Source: Data processing results (2023)

The results of this study show that the risk aversion has a significant positive effect on investment decisions with an original sample value of 0.463 and a t-statistic of 5.758 (>1.96) or with a P-value of 0.000 (<0.05). This means that if risk aversion is getting better, investment decisions will be better and conversely, as investors' risk aversion decreases, the impact on investment decisions will decrease. So hypothesis 1 which states that risk aversion influences investment decisions is accepted.

Furthermore, the risk perception has a significant positive effect on investment decisions with an original sample value of 0.628 and a t-statistic of 4.639 (>1.96) or with a P-value of 0.000 (<0.05). This means that the better the investor's risk perception, the better the investment decisions made by the investor. And conversely, the decreasing risk perception can reduce investment decisions by investors. So hypothesis 2 which states that risk perception influences investment decisions is accepted.

In addition, testing hypothesis 3 shows that the financial knowledge cannot moderate the influence of risk aversion on investment decisions, with an original sample value of 0.211, a statistical t value of 1.713 (<1.96) or a p value of 0.079 (>0.01). This means that financial knowledge does not significantly strengthen the influence of risk aversion on investment decisions, so hypothesis 3, which states that financial knowledge can moderate the positive influence of risk aversion on investment decisions, is rejected.

Apart from that, testing hypothesis 4 shows that the original sample value is 0.489 with a statistical t test value of 3.475 and a p value of 0.002 (<0.05). The t test value >1.96 means that the investment experience can moderate the positive influence of risk aversion on investment decisions, so that hypothesis 4, which states that investment experience can moderate the positive influence of risk perception on investment decisions, is accepted.

Table 4. Hypothesis Testing Results

			Original Sample (O)	t-Statistics (O/STDE V)	P Values	Result
Risk Aversion → Investment Decisions			0,463	5,758	0,000	significant
Risk Perception → Investment Decisions			0,628	4,639	0,000	significant
Knowledge*Risk Investment Decisions	Aversion	→	0,211	1,713	0,079	insignificant
Experience*Risk Investment Decisions	Perception	→	0,489	3,475	0,002	significant

Source: Data processing results (2023)

5. Discussion

Risk aversion has a significant positive effect on investment decisions. If risk aversion increases, investment decisions will be better. This result is in accordance with the statement for the risk aversion with the highest average, namely: RA2, which states that "I refuse to invest in risky businesses/investments". Investors worry more about prospective losses than prospective gains (Kahneman & Tversky, 1979). The results of this research are in line with the findings of Ahmad and Shah, (2022); Schäfer et al, (2022); Farooq & Sajid, (2015) found that risk aversion has a significant effect on investment decisions. This means that research proves that investors who avoid risk feel that their investment decisions will get better results.

Risk perception has a significant positive effect on investment decisions. If investors' risk perception gets better, investment decisions will improve. Risk perception is a subjective aspect in the decision-making process carried out by individuals when evaluating risk and the level of uncertainty (Baker et.al., 2017). This result is consistent with the statement of the highest average risk perception, namely RP2, with the statement, I am careful of stocks that show price fluctuations or unexpected transactions. According to investment cycle theory, investors invest more when the economy is growing and less when it is slowing down. This reflects changes in the perception of risks and opportunities associated with business cycles, making investors cautious when making investment decisions. These results are in line with research conducted by Ahmad and Shah, (2022); Schäfer et al, (2022) found that risk perception has a significant effect on investment decisions. These findings prove that investors' caution regarding their perceptions can make better investment decisions.

Knowledge moderates the influence of risk aversion on investment decisions. The results show that financial knowledge cannot moderate the impact of risk aversion on investment decisions. This is due to the increased awareness that investors still do not pay enough attention to hedging risks. This situation is reflected in the lowest average of the statement "I divide my income into savings and investments." The results of this study do not match the research findings of Ahn and Nam, (2022), where having more financial knowledge helps reduce excessive consumption and difficulties in managing money. The results of this study are also not in accordance with the protection motivation theory, Rogers (1975) proposed the protection motive theory, which holds that "people tend to protect themselves more when they anticipate negative consequences, have a desire to avoid them, and feel they have the ability to take preventive action." The study's findings do not support this hypothesis.

Experience moderates the influence of risk perception on investment decisions. Investment experience can significantly moderate the influence of risk perception on investment decisions. This means that investment experience can strengthen the significant influence of risk perception on investment decisions. With investment experience, investors improve the quality of their risk perception so that they are better at making investment decisions. The statement with the highest mean value for the investment experience is EX4 "I plan the amount of capital used to invest". Risk perception, with the highest mean being RP2 "I am careful with stocks that show price fluctuations or unexpected transactions." The highest mean value of the investment decision indicator ID4, "I make investments without any guarantees". The study's respondents ranged in age from 25 to 35 years old, with the majority having a bachelor's degree and five to ten years of investment experience. Wealthy, educated, and seasoned investors might demonstrate a cautious approach to risk management while making investing selections.

The result of this research shows that planning the amount of capital used to invest can actually strengthen investors' cautious attitude towards unintended share price fluctuations regarding unsecured investment decisions. So experience, especially in planning the amount of investment capital, is important because it can strengthen the influence of risk perception in making investment decisions.

6. Conclusion

The conclusions from research findings to answer research questions are presented as follows: The risk aversion has a significant impact on investment decisions. Investors are more worried about prospective losses than prospective profits, this is in accordance with the statement: I refuse to invest in risky stocks, meaning that most investors in IDX who avoid risk, feel that their investment decisions will get better results.

The risk perception has a significant impact on investment decisions. Risk perception is a subjective aspect of individual decision making when evaluating risk and the level of uncertainty. Changes in perceptions of risks and opportunities related to the Global and Indonesian economic cycles cause investors in IDX to be careful in making investment decisions. The indicator considered by respondents is to be careful with shares that show price fluctuations or unexpected transactions. These findings prove that investors' caution regarding their perceptions can make better investment decisions.

The financial knowledge cannot moderate the impact of risk aversion on investment decisions..Based on respondents' answers regarding knowledge in dividing income for investment in IDX is still very low, so knowledge cannot strengthen the influence of risk aversion on investment decisions. Knowledge has a significant role in moderating the influence of risk aversion on investment decisions. However, findings from data analysis show that financial knowledge is unable to reduce the impact of risk aversion on investment decisions. Although financial knowledge is important in the investment decision making process, there is no evidence to show that knowledge itself can change the way a person responds to or manages risk in investments. This occurs because of the complexity of the factors involved in the investment decision making process and shows that there are other variables that may be more dominant in influencing investment decisions than financial knowledge itself.

The investment experience can significantly moderate the impact of risk perception on investment decisions. The investment experience possessed by investors will improve the quality of their risk perception, so that investors will be better at making investment decisions. The respondent's answer with the highest average was: I plan the amount of capital used to invest. Experienced investors at IDX are able to make investment plans, allowing them to make excellent investment decisions.

The limitations of this research can be seen from the answers to the selected statements, respondents are faced with various factors that influence their investment decisions. Respondents have limited time in determining answers to research statements, so their answers could be biased. The limited knowledge of IDX investors in dividing income for investment causes the ability to reduce the increase in risk aversion towards investment decisions. The limited number of respondents in the sample can reduce the accuracy of the findings, in future research it can be expanded to a larger number of respondents.

7. References

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