



RESEARCH ARTICLE

The Effect of Risk Perception and Income on Investment Decisions

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Funding information

Universitas Sebelas Maret Surakarta.

Abstract

This study examines how risk perception and income shape investment decisions among students of the Faculty of Economics and Business at ABC University, Jakarta. The issue is relevant because student investors often enter financial markets with uneven financial literacy, modest income, and different tolerance toward uncertainty. A quantitative design was applied using primary data collected through questionnaires. Since the population was manageable, census sampling was used, and 75 students became respondents. The data were tested with Partial Least Squares (PLS) to assess the direct and joint effects of the independent variables. The findings indicate that risk perception and income influence investment decisions both individually and jointly. The model explains 91% of the variation in investment decisions, while 9% is affected by variables outside this research. Although the explanatory value is high, the result should be read carefully because investment behavior among students may also be shaped by financial literacy, peer influence, digital investment platforms, and market information. This study suggests that better risk understanding and income management can support more rational student investment behavior.

Keywords

Risk Perception; Income; Investment Decisions; Students.

1 | INTRODUCTION

Investment is generally understood as the choice to postpone current consumption by allocating funds to productive assets for a certain period. This definition implies that investment is not simply the act of keeping money, but a deliberate financial decision that requires readiness to accept uncertainty. Darmawan and Japar (2019) describe investment as the placement of funds in assets or financial instruments with the expectation of future profit. Hidayat (2019) also defines investment as a present commitment of funds aimed at obtaining future returns as compensation for risk. These views indicate that investment always involves a trade-off between expected benefits and possible losses. For this reason, investors cannot rely only on the desire to gain profit. They also need to evaluate their financial capacity, risk tolerance, investment knowledge, and the reliability of available information. A rational investment decision should be based on careful judgment rather than impulse, trend-following, or peer pressure. This is especially relevant for young investors who are still developing financial discipline and experience.

In Indonesia, the growing number of retail investors has become an indicator of increasing public awareness of financial planning. Based on data from the Financial Services Authority/Otoritas Jasa Keuangan (OJK) in 2024, the number of retail investors in Indonesia reached more than 13 million, showing a rapid increase compared to the previous five years (OJK, 2024). This condition indicates that investment is no longer an activity limited to certain groups, but has expanded to wider society. However, the increase in the number of investors does not automatically reflect better investment decision quality. Many individuals invest merely because of trends, peer influence, or fear of missing out (FOMO), without sufficient understanding of investment instruments and the risks attached to them. Data from KSEI also show that the number of Indonesian capital market investors has continued to increase significantly from year to year. In 2022, there were 10.3 million investors, rising to 12.1 million in 2023, and increasing further to 14.8 million in 2024. As of May 2025, the number reached 16.5 million investors. The largest increase was dominated by capital market investors, followed by mutual funds, stocks and other securities, and government securities. The highest annual growth occurred during 2022–2024, while in 2025 the growth rate slowed down but remained stable at around 1–3% per month. These data show that public interest in capital market investment in Indonesia continues to grow and is increasingly spread across various instruments. Several factors may influence a person's investment decision, including risk perception and income.

Behavioural finance theory explains that subjective risk perception often plays a stronger role in shaping investment behavior than objective risk. Risk perception refers to an individual's subjective assessment of the possibility of loss arising from an investment activity. Unlike objective risk, which can be measured statistically, risk perception is strongly influenced by psychological factors, past experience, and the information received by investors. Listyani *et al.* (2019) explain that risk perception is formed through an individual's interpretation of the uncertainty attached to investment. Prospect Theory, provides an explanation of how individuals perceive risk. This theory states that individuals tend to experience loss aversion, a condition in which losses are felt more strongly than gains of the same value. As a result, investors may become overly cautious or even avoid investment, although the opportunity for profit is relatively promising. Ella and Warti (2025) found that risk perception has a significant effect on investment decisions, especially among novice investors who do not yet have adequate experience. High risk perception tends to reduce investment interest and decision-making, while low risk perception may encourage speculative behavior. Therefore, risk perception becomes a relevant variable in explaining differences in investment behavior among individuals, even when they face the same market conditions. This is also supported by Hidayat *et al.* (2024), who emphasized the role of risk perception as a determinant of investment behavior among Generation Z students.

In addition to risk perception, income also influences a person's investment decisions. Income is one of the main factors affecting investment decisions because individuals with higher income have greater financial capacity to allocate funds for investment. However, high income that is not supported by adequate investment knowledge does not always lead to optimal decisions. Income is a major determinant in individual financial decisions because it reflects a person's economic ability to allocate funds for consumption, savings, and investment. Pigou (1936), in *General Theory*, stated that income has a direct relationship with savings and investment, where an increase in income will raise investment potential. Ella and Warti (2025) also found that income significantly affects investment decisions, particularly through increased financial security and the ability to bear risk. Nevertheless, income should not only be understood in nominal terms, but also subjectively. Individuals with the same level of income may show different investment behavior depending on how they perceive the adequacy of their income. In the framework of the Theory of Planned Behavior, income contributes to the formation of perceived behavioral control, namely an individual's perception of their ability to make an investment (Ajzen, 1991).

Given the influence of risk perception and income on financial behavior, this study examines how both variables affect investment decisions among students of the Faculty of Economics and Business at ABC University, Jakarta. Students are a relevant group because many have begun using digital investment platforms, while their income sources, financial confidence, and ability to tolerate risk differ widely. This research seeks to assess whether investment choices are shaped by rational evaluation, economic ability, or personal concern about possible losses. The findings may help universities

design financial education that is more practical, evidence-based, and aligned with students' real decision-making patterns.

2 | BACKGROUND THEORY

2.1 Risk Perception and Investment Decisions

Risk refers to the possibility of loss or failure in obtaining the expected return from an investment. It is one of the main concerns faced by investors. In stock investment, there is a common principle that higher expected returns are usually followed by higher potential risks. This means that investment decisions cannot be based only on the desire to gain profit, because every investment instrument carries a certain level of uncertainty that cannot be predicted with absolute accuracy. Sulistyowati *et al.* (2022) state that return and risk have a strong relationship in investment activities. Therefore, investors need to consider not only the expected return but also the potential risks that may arise in the future. Risk perception refers to an individual's view or assessment of the possibility of loss that may occur in the future. This perception can influence present decisions, including whether someone decides to invest or avoid investment. A better understanding of risk may help individuals make more careful investment decisions and reduce the possibility of financial loss (Fadila *et al.*, 2022). This statement is in line with Bangun (2020), who found that risk perception has a positive effect on investment decisions. This means that individuals with higher risk perception may be more willing to make investment decisions because they are more prepared to face uncertain conditions. In investment behavior, uncertainty often involves emotional factors, personal preferences, individual traits, and attitudes toward risk.

H1: Risk perception is assumed to have an effect on investment decisions.

2.2 Income and Investment Decisions

Income also plays an important role in investment decisions because a person's ability to invest is often related to the amount of income they receive. In the case of students, preliminary observations show that many students obtain income from allowances, scholarships, or part-time jobs. This income is generally used to fulfill daily needs, but based on surveys and interviews, many students also show interest in investing using the income they have. Panjaitan and Listiadi (2021) explain that income can influence whether individuals decide to invest and how much they allocate to tangible assets or financial assets. This view is supported by Astutik *et al.* (2024), who found that investment decisions among Generation Z in Surabaya are related to how individuals assess and manage their income. The level of income can affect a person's ability and confidence to invest. Although many members of Generation Z in Surabaya still have moderate income, some of them continue to allocate part of their income for investment. A similar finding was reported by Safryani *et al.* (2020), who showed that income has a positive and significant effect on investment decisions among permanent lecturers at FEB UPNVJ. This means that income indicators such as salary, wages, bonuses, and commissions have a role in shaping investment decisions. Individuals with higher income generally have a greater opportunity to invest compared to those with lower income.

H2: Income is assumed to have an effect on investment decisions.

3 | METHOD

This study employed a quantitative research design to examine how risk perception and income influence investment decisions. The data were obtained directly from respondents through questionnaires distributed by the researcher. A modified Likert scale ranging from 1 to 5 was used to measure respondents' agreement with each statement. Since the population was accessible and relatively small, census sampling was applied, allowing all eligible students to be included in the study. The final sample consisted of 75 students from the Faculty of Economics and Business at ABC University, Jakarta. The data analysis was carried out through the Partial Least Squares (PLS) approach using SmartPLS version 3.29. The first stage focused on the measurement model, or outer model, to evaluate whether the indicators used in the questionnaire were valid and reliable. Convergent validity was assessed through loading factor values and Average Variance Extracted (AVE), while discriminant validity was examined by comparing the square root of AVE with correlations among constructs. Reliability was tested using Cronbach's alpha and composite reliability values. PLS was considered suitable for this study because it can be used for predictive research with a relatively small number of respondents and does not rely heavily on strict normality assumptions. Even so, the use of 75 respondents requires careful interpretation. The findings should be read as evidence from a specific group of students, not as a broad generalization for all student investors. This method still provides a useful basis for assessing whether risk perception and income are related to investment decision-making among university students.

4 | RESULTS AND DISCUSSION

4.1 Results

4.1.1 Validity Test (Convergent Validity)

The convergent validity test was conducted as the initial stage to ensure that each indicator properly reflects the variable being measured. This test was assessed through outer loading values and the Average Variance Extracted (AVE). An indicator is considered to meet convergent validity when its outer loading value is greater than 0.70, while a variable is considered valid when its AVE value is greater than 0.50. A high outer loading value indicates a strong relationship between the indicator and its construct. Meanwhile, an AVE value above 0.50 shows that the variable can explain more than half of the variance in its indicators.

Table 1. Outer Loadings Results

Variable	Indicator	Outer Loadings	Cronbach's Alpha	Composite Reliability	AVE
Risk Perception (X1)	PR.1	.726	.895	.932	.677
	PR.2	.906			
	PR.3	.821			
	PR.4	.883			
	PR.5	.826			
Income (X2)	P.1	.842	.873	.925	.638
	P.2	.874			
	P.3	.763			
	P.4	.829			
	P.5	.832			
Investment Decision (Y)	KI.1	.885	.869	.917	.663
	KI.2	.798			
	KI.3	.732			
	KI.4	.887			
	KI.5	.776			

Source: Primary Data Processed Using SmartPLS, 2026.

Based on the results in Table 1, the loading factor value of each indicator is greater than 0.70, indicating that each indicator is reliable in assessing employee performance. The reliability level is shown by the Cronbach's alpha and composite reliability values, both of which are greater than 0.70. Therefore, each variable can be considered reliable, although the construct reliability of each indicator varies. In addition, since all AVE values are greater than 0.50, indicating a good level of convergence, all variables meet the requirements for strong convergent validity.

4.1.2 R-Square (R^2) Testing

After all indicators are declared valid and reliable, the next stage is to evaluate the inner model. This evaluation is conducted to determine the strength of the relationship between variables in the research model. One of the tests used is the coefficient of determination or R-Square (R^2), followed by the path coefficient test. The R-Square value is used to measure how well the independent variables explain variations in the dependent variable. The higher the R-Square value, the greater the influence of the independent variables on the dependent variable in the study.

Table 2. R-Square Results

Variable	R-Square (R^2)	Adjusted R-Square
Investment Decision (Y)	.917	.910

Source: Primary Data Processed Using SmartPLS, 2026.

Based on Table 2, the Adjusted R-Square value for investment decision (Y) is 0.910. This means that the investment decisions of students at the Faculty of Economics and Business, ABC University Jakarta, are influenced by risk perception and income by 91%. Meanwhile, the remaining 9% is influenced by other factors outside this research model.

4.1.3 Path Coefficient Test

The path coefficient test is used to assess the significance of the relationship between variables in the research model. This test helps determine whether the proposed hypotheses can be accepted based on the data processing results. The assessment is based on t-statistics and p-values using a two-tailed model. A hypothesis is accepted when the t-statistics value is greater than the t-table value or when the p-value is less than 0.05. The results should be interpreted carefully so

that the direction and strength of the relationship between variables are consistent with the research theory.

Table 3. Path Coefficient Test Results

Relationship	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P-Values
Risk Perception (X1) → Investment Decision (Y)	.578	.157	3.853	.000
Income (X2) → Investment Decision (Y)	.621	.174	3.610	.001

Source: Primary Data Processed Using SmartPLS, 2026.

Based on Table 3, risk perception has a t-statistic value of 3.853, higher than the t-table value of 1.65, and a p-value of 0.000, lower than 0.05. This indicates that risk perception has a significant effect on the investment decisions of students at the Faculty of Economics and Business, ABC University Jakarta. Therefore, H1 is accepted. Income has a t-statistic value of 3.610, higher than the t-table value of 1.65, and a p-value of 0.001, lower than 0.05. This shows that income has a significant effect on students' investment decisions. Therefore, H2 is accepted.

4.2 Discussion

The results show that risk perception and income have a significant effect on the investment decisions of students at the Faculty of Economics and Business, ABC University Jakarta. This finding indicates that students' investment decisions are not only driven by the desire to gain profit, but also by how they assess possible losses and manage their financial capacity. The Adjusted R-Square value of 0.910 shows that risk perception and income explain 91% of investment decisions, while the remaining 9% comes from other factors, such as financial literacy, financial behavior, investment motivation, technological development, or investment experience.

Risk perception has a significant effect on investment decisions. This means that students consider possible losses, market changes, and fund security before choosing an investment instrument. This finding is in line Rika and Syaiah (2022), Putri and Santoso (2024), and Astutik *et al.* (2024), who stated that risk can affect investment decisions. Students who understand risk tend to make more careful decisions instead of simply following trends or other people's suggestions. However, this result differs from Fadila *et al.* (2022), who stated that risk perception had no effect on young entrepreneurs' investment decisions. This difference may occur because the respondents have different characteristics. Students generally have unstable income and limited investment experience, so risk becomes a strong consideration. Meanwhile, young entrepreneurs are usually more familiar with uncertainty in business activities, so investment risk may be viewed as a more common issue.

Income also has a significant effect on investment decisions. The higher or more stable the students' income, the greater their opportunity to allocate funds to investment instruments. This finding is in line with Safryani *et al.* (2020), Panjaitan and Listiadi (2021), Lestari *et al.* (2022), Primasari *et al.* (2024), and Astutik *et al.* (2024), who stated that income affects investment decisions. Income gives students financial room to meet their main needs first and then set aside part of their money for investment. Even so, higher income does not always lead to better investment decisions. Without investment knowledge and good financial management, income may be used more for consumption. This is consistent with Darmawan and Japar (2019) and Listyani *et al.* (2019), who explained that investment knowledge, capital market training, minimum capital, and risk perception are related to investment interest. Ella and Warti (2025) also stated that financial behavior plays a role in investment decisions.

5 | CONCLUSIONS AND FUTURE WORK

Based on the research results and data analysis, risk perception and income have a significant effect on the investment decisions of students at the Faculty of Economics and Business, ABC University Jakarta, both partially and simultaneously. Students' views on risk, such as fear of loss or willingness to take risks, play a role in shaping their investment decisions. Income also affects students' readiness to allocate funds for investment. The influence value of 91% shows that both variables have a strong role, while the remaining 9% comes from other factors outside this study. Based on the findings, income is a variable that significantly affects investment decisions. Therefore, students need to build better financial management habits so they have financial space to invest. For risk perception, students should assess the risk of each investment instrument before making decisions. Investment choices should not only be based on potential returns, but also on readiness to face possible losses. This study only uses two independent variables, namely risk perception and income. In fact, investment decisions may also be influenced by other factors, such as financial literacy, investment experience, social influence, and access to financial technology. In addition, the sample of 75 students in Jakarta may not fully represent the wider student population.

Future researchers are advised to increase the number of respondents and expand the research area to obtain stronger results. They may also add other variables, such as financial literacy, financial behavior, investment motivation, or the use of financial technology.

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How to cite this article: Nurdiani, T. W., Riduwansah, Ginting, R., Dwiyono, G., & Nini. (2026). The Effect of Risk Perception and Income on Investment Decisions. *Indonesian Journal Economic Review (IJER)*, 6(2), 619–624. <https://doi.org/10.59431/ijer.v6i2.816>.