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The Influence of Financial Literacy, Risk Perception, and Overconfidence on Investment Decisions in Emerging Markets

Original Article

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Abstract

This study examines the influence of financial literacy, risk perception, and overconfidence on investment decisions in emerging markets. Understanding these factors is important because investment decisions are shaped not only by financial knowledge but also by investors' perceptions of uncertainty and confidence in their own judgments. This study adopts a quantitative research approach and applies Partial Least Squares Structural Equation Modeling (PLS-SEM) to examine the relationships among the variables. The proposed model evaluates the effects of financial literacy, risk perception, and overconfidence on investment decisions. The example results indicate that financial literacy has the strongest positive and significant relationship with investment decisions ($\beta = 0.421$, $p < 0.001$), followed by risk perception ($\beta = 0.286$, $p < 0.001$) and overconfidence ($\beta = 0.194$, $p = 0.006$). The model explains 58.4% of the variance in investment decisions, suggesting that the three predictors jointly account for a substantial proportion of the variation in the outcome variable within the example analysis. These findings emphasize the importance of financial knowledge in evaluating investment alternatives, risk awareness in assessing uncertainty, and understanding behavioral biases when making investment choices. The study offers practical implications for financial education providers, financial institutions, and policymakers seeking to promote more informed investment behavior in emerging markets. However, the reported numerical results must be verified using actual empirical data before the abstract can be presented as a report of completed research.

Keywords Financial Literacy; Risk Perception; Overconfidence; Investment Decisions; Emerging Markets; Behavioral Finance

1. Introduction

Investment decisions have become increasingly important as individuals seek to accumulate wealth, protect their purchasing power, and achieve long-term financial security. The expansion of digital investment platforms, online brokerage services, and access to financial information has enabled a broader range of individuals to participate in financial markets. However, greater accessibility does not necessarily guarantee better investment decisions. Investors must evaluate financial information, understand the relationship between risk and return, and recognize the psychological factors that may influence their judgments. These challenges are particularly relevant in emerging markets, where financial systems, investor education, market institutions, and access to reliable investment information may differ considerably from those in developed economies. Consequently, investment decisions should be understood not only as financial calculations but also as outcomes shaped by individuals' knowledge, perceptions, and behavioral tendencies. The Organisation for

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Economic Co-operation and Development (OECD, 2023) emphasizes that financial literacy is an essential capability for making informed financial decisions and supporting individual financial well-being. In this context, understanding the determinants of investment decisions is important for improving investor protection, strengthening financial participation, and encouraging more responsible investment behavior.

Emerging markets provide a particularly relevant setting for investigating investment behavior because expanding access to financial products may create opportunities alongside new challenges. Investors can increasingly access equities, mutual funds, bonds, and other investment instruments through digital platforms. Nevertheless, access to these products does not automatically ensure that individuals possess the knowledge required to evaluate them effectively. Information obtained from social media, online communities, and informal investment networks may also influence investors' expectations and preferences. When financial information is incomplete or difficult to interpret, individuals may rely on personal experience, intuitive judgments, and the behavior of other market participants. These circumstances make it necessary to examine both cognitive capabilities and psychological influences when explaining investment decisions. Research by Shroff et al. (2024) demonstrates the relevance of financial literacy to investment decisions in an emerging-market context, showing that greater financial literacy is associated with more informed investment choices. Therefore, examining the factors that shape investment behavior can contribute to a more comprehensive understanding of how individuals make financial decisions in developing financial markets.

Financial literacy represents one of the fundamental factors that may influence investment decisions. It refers to an individual's understanding of financial concepts and ability to apply financial knowledge when managing money, evaluating financial products, and making investment choices. Relevant knowledge includes interest rates, inflation, diversification, investment returns, and the relationship between risk and expected return. Investors with stronger financial literacy may be better equipped to compare investment alternatives, assess potential losses, identify misleading financial claims, and develop investment strategies consistent with their financial objectives. Financial literacy can also help individuals distinguish between short-term market fluctuations and longer-term investment considerations. The OECD (2023) identifies financial knowledge, behavior, and attitudes as important dimensions of financial literacy, highlighting the broader capabilities required for effective financial decision-making. Consistent with this perspective, Shroff et al. (2024) found that financial literacy positively influences investment decisions among investors in India. Similarly, research conducted by Pambudi et al. (2024) identified a significant positive relationship between financial literacy and investment decision-making among investors in Surakarta, Indonesia. These findings suggest that financial literacy may support investment decisions by improving individuals' ability to interpret financial information and evaluate alternatives systematically.

Nevertheless, the influence of financial literacy should not be assumed to operate identically across all investors and market conditions. Individuals may possess adequate financial knowledge but still make decisions influenced by emotions, incomplete information, or unrealistic expectations. Financial literacy provides the foundation for understanding investment alternatives, but the application of that knowledge may depend on how investors

perceive uncertainty and evaluate their own abilities. For example, an investor may understand the principle of diversification but still concentrate their portfolio in a single asset because of confidence in a particular company. Another investor may understand the risks associated with equity investments but avoid potentially suitable opportunities because the possibility of losing money is perceived as excessively threatening. Barlian et al. (2022), in their study of Indonesian investors, examined financial literacy, risk perception, and overconfidence together, demonstrating the relevance of considering these factors within a common investment decision-making framework. Accordingly, financial literacy should be investigated alongside psychological variables to establish a more complete explanation of investment behavior in emerging markets.

Risk perception constitutes a second important determinant of investment decisions because investment inherently involves uncertainty regarding future returns and the possibility of financial loss. It refers to how individuals interpret, evaluate, and respond to the risks associated with investment alternatives. Investors who perceive an investment as highly risky may reduce their exposure, diversify their portfolios, or avoid the investment altogether. Conversely, investors who perceive risks as manageable may be more willing to allocate funds to assets with uncertain returns. However, risk perception does not always lead to investment avoidance. An accurate understanding of risk may encourage investors to evaluate alternatives more carefully, establish appropriate investment objectives, and select assets according to their financial circumstances. Wendy (2024), in research examining Indonesian investors, investigated the relationship between financial literacy, risk perception, and investment decisions, highlighting the importance of considering these factors together. Suriansyah and Harianto (2022) also examined financial literacy and risk perception in investment decision-making, demonstrating the relevance of financial behavior in understanding how these relationships operate. These studies suggest that risk perception should be examined as a distinct factor rather than treated simply as an obstacle to investment participation.

The relationship between risk perception and investment decisions may also depend on individual characteristics, financial experience, and the information available to investors. Two individuals facing the same investment opportunity may reach different conclusions because they interpret uncertainty differently. For instance, an experienced investor may consider short-term price fluctuations an ordinary characteristic of equity markets, whereas a less experienced investor may interpret the same fluctuations as evidence of substantial danger. Moreover, investors may underestimate risks when market conditions appear favorable or overestimate them after experiencing losses. Evidence from emerging-market research indicates that risk-related judgments and financial knowledge can operate together in shaping investment behavior. Ahmad and Shah (2022) examined the role of overconfidence in investment decision-making and performance, including the mediating role of risk perception and the moderating role of financial literacy. Their findings reinforce the importance of understanding how psychological judgments interact with financial knowledge. Consequently, examining risk perception alongside financial literacy and overconfidence can provide a more integrated explanation of individual investment decisions.

Overconfidence represents a third factor that may influence investment decisions. In behavioral finance, overconfidence refers to individuals' tendency to overestimate their knowledge, judgment, predictive ability, or capacity to control outcomes. Overconfident

investors may believe that they can identify profitable opportunities more accurately than other market participants or predict future price movements with greater certainty than the available evidence supports. Such beliefs can encourage excessive trading, inadequate diversification, and insufficient consideration of unfavorable outcomes. Although confidence can motivate individuals to participate in financial markets, excessive confidence may lead them to underestimate uncertainty and rely too heavily on personal judgments. Ahmad and Shah (2022) investigated overconfidence as a behavioral bias among investors in Pakistan and demonstrated its relevance to investment decisions and performance. Similarly, Pambudi et al. (2024) included overconfidence alongside financial literacy and risk perception in their examination of investment decision-making in Indonesia. These studies establish the relevance of investigating overconfidence as an independent explanatory variable, while also indicating that its effects should be evaluated empirically rather than assumed to be uniform across investors.

The relationship between overconfidence and investment decisions is particularly important in emerging markets, where investors may encounter rapidly changing information environments and varying levels of investment experience. Online investment communities and digital platforms can increase access to market information, but they can also expose individuals to confident predictions, anecdotal success stories, and unsupported claims about investment opportunities. Investors who interpret favorable outcomes as evidence of superior ability may become increasingly confident in their future decisions, even when those outcomes partly reflect chance or broader market movements. This can encourage risk-taking that is not adequately supported by financial analysis. Nevertheless, overconfidence does not necessarily produce identical outcomes in every context. Its influence may depend on investor experience, financial knowledge, risk attitudes, and the nature of the investment instrument. Barlian et al. (2022) examined the interrelationships among financial literacy, risk perception, overconfidence, and investment decisions among Indonesian investors, providing a relevant empirical foundation for studying these variables jointly. Laning and Setiawan (2023) likewise examined financial literacy and overconfidence in relation to share investment decisions. Taken together, this research supports investigating whether investors' confidence in their own judgments contributes to investment choices beyond the influence of financial knowledge and perceived risk.

Despite growing research interest in behavioral finance, several issues warrant further investigation. First, financial literacy, risk perception, and overconfidence are frequently studied individually or through models that introduce additional variables, such as risk tolerance, financial behavior, or financial education. Although these approaches provide valuable insights, they do not always establish how the three factors jointly relate to investment decisions within a single analytical framework. Second, empirical findings may differ across countries, investor groups, financial instruments, and research methods. For example, evidence from India, Pakistan, and Indonesia reflects distinct institutional and investor contexts, limiting the assumption that relationships observed in one setting will necessarily apply to another (Ahmad & Shah, 2022; Shroff et al., 2024; Wendy, 2024). Third, emerging markets continue to present important questions concerning the relationship between increasing investment accessibility and the ability of individuals to make informed financial choices. Further investigation is therefore needed to clarify the relative contributions of financial literacy, risk

perception, and overconfidence to investment decision-making within emerging-market settings.

Addressing these issues has both theoretical and practical significance. Theoretically, the study integrates a knowledge-based perspective on financial decision-making with behavioral finance, recognizing that investment choices reflect both the capacity to evaluate financial information and the psychological processes through which investors interpret uncertainty. Financial literacy represents the cognitive resources available to investors, risk perception captures their evaluation of potential adverse outcomes, and overconfidence reflects possible distortions in self-assessment and judgment. Examining these factors together may clarify whether investment decisions are associated with financial competence, perceived risk, and confidence in personal judgment. Practically, the findings may inform financial education initiatives, investor-awareness programs, and policies designed to encourage responsible participation in financial markets. Financial education can help individuals understand investment products and their associated risks, while greater awareness of behavioral biases may encourage more careful evaluation of investment claims and personal assumptions. Such initiatives are particularly relevant in emerging markets, where improving the quality of investment decisions can complement efforts to broaden financial inclusion and strengthen investor protection (OECD, 2023; Shroff et al., 2024).

The objective of this study is to examine the influence of financial literacy, risk perception, and overconfidence on investment decisions in emerging markets. Specifically, the study seeks to determine whether financial literacy contributes to better-informed investment choices by enabling investors to understand financial concepts, evaluate investment alternatives, and assess the relationship between risk and return. It also aims to investigate how risk perception influences investment decisions by examining the role of investors' assessments of uncertainty and potential financial losses in their investment choices. Furthermore, the study evaluates the influence of overconfidence to determine whether investors' beliefs about their own knowledge and judgment are associated with their investment decisions. By examining these three factors within an integrated framework, this research aims to contribute to the behavioral finance literature and provide empirical insights relevant to financial education, investor protection, and the development of more informed investment practices in emerging markets.

2. Method

2.1. Research Design

This study employs a quantitative research approach to examine the influence of financial literacy, risk perception, and overconfidence on investment decisions in emerging markets. A quantitative approach is appropriate because the study aims to measure relationships between the independent variables and the dependent variable using numerical data and statistical analysis. The research adopts an explanatory design to assess whether variations in investors' financial literacy, perceptions of investment risk, and levels of overconfidence are associated with differences in their investment decisions. The study is grounded in behavioral finance, which recognizes that financial decisions are influenced not only by objective financial information but also by individual knowledge, perceptions, and psychological biases. Data are collected through a structured questionnaire distributed to individual investors who have

experience making investment decisions in an emerging-market context. The questionnaire measures the four research variables using multiple indicators adapted from relevant financial literacy and behavioral finance literature. The research design enables the proposed relationships to be examined systematically and provides a basis for evaluating the study's hypotheses.

2.2. Population and Sample

The target population consists of individual investors who participate in financial markets in emerging economies. Eligible respondents are individuals aged 18 years or older who have made at least one investment decision involving financial instruments such as stocks, mutual funds, bonds, or other regulated investment products. Respondents should have sufficient experience with investment activities to evaluate the questionnaire statements based on their own knowledge, perceptions, and decision-making practices.

The study uses a purposive sampling technique to select respondents who meet these eligibility criteria. This sampling method is appropriate when the research requires participants with specific characteristics and relevant experience. The sample size should be determined according to the complexity of the proposed model, the statistical method employed, and the desired level of statistical power. For a model involving three independent variables and one dependent variable, the researcher should conduct an appropriate power analysis before data collection to establish a defensible minimum sample size.

The questionnaire is distributed electronically or through other accessible survey channels. Participation is voluntary, and respondents are informed about the purpose of the research, the confidentiality of their responses, and their right to withdraw from participation. Only sufficiently complete and eligible responses are included in the final analysis. Because purposive sampling is a non-probability sampling technique, the findings are interpreted within the characteristics of the respondents rather than assumed to represent all investors in emerging markets.

2.3. Data Collection Procedure

conceptual framework and relevant previous research. The questionnaire consists of sections covering respondent characteristics, financial literacy, risk perception, overconfidence, and investment decisions. Demographic information may include age group, gender, educational attainment, employment status, investment experience, and preferred investment instruments.

Before completing the questionnaire, participants receive information explaining the research objectives, the voluntary nature of participation, and the procedures used to protect their information. The questionnaire should avoid collecting unnecessary personally identifiable information. A pilot survey is conducted before the main data collection to identify ambiguous questions, assess completion time, and improve the instrument's clarity. Any modifications made following the pilot test are documented.

After data collection, the responses are screened for eligibility, completeness, duplicate submissions where identifiable through appropriate non-invasive procedures, and potentially invalid response patterns. Missing data and unusual observations are assessed using predefined criteria rather than removed automatically. The final dataset is prepared for statistical analysis,

with all coding decisions and data-cleaning procedures documented to support transparency and reproducibility.

2.4. Measurement of Variables

The study consists of three independent variables—financial literacy, risk perception, and overconfidence—and one dependent variable, investment decisions. Each variable is operationalized through indicators derived from established concepts in financial literacy and behavioral finance.

Financial literacy refers to respondents' knowledge and understanding of fundamental financial concepts relevant to investment decisions. Its indicators include understanding investment returns, inflation, interest rates, diversification, and the relationship between risk and return. Financial literacy can be assessed through objective knowledge questions with correct and incorrect answers, supplemented where appropriate by self-reported financial knowledge. Objective questions are particularly useful for distinguishing actual financial knowledge from respondents' confidence in their own understanding (OECD, 2023).

Risk perception refers to the extent to which respondents perceive investment opportunities as uncertain or potentially associated with financial losses. Its indicators include perceived volatility, the possibility of losing invested capital, uncertainty about future returns, and perceived exposure to investment-related risks. Higher scores should consistently represent higher perceived risk if the variable is operationalized in that direction.

Overconfidence refers to respondents' tendency to overestimate their financial knowledge, analytical ability, or capacity to predict investment outcomes. Indicators include excessive confidence in personal investment judgments, perceived superiority in evaluating investment opportunities, and underestimation of the possibility of being wrong. The measurement should distinguish overconfidence from general financial self-efficacy, which concerns confidence in one's ability to perform financial tasks. This distinction is important because confidence can be beneficial, whereas overconfidence involves an unjustified or excessive assessment of one's capabilities (Ahmad & Shah, 2022).

Investment decisions refer to the processes and choices through which individuals select, evaluate, and allocate funds to investment alternatives. Indicators may include the consideration of investment objectives, comparison of alternatives, evaluation of expected returns and risks, diversification, and consistency between investment choices and financial goals.

Risk perception, overconfidence, and investment-decision indicators may be measured using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Financial literacy should preferably be measured using objective knowledge questions rather than relying exclusively on agreement-based statements. Before the main survey, the questionnaire should be reviewed by relevant experts and pilot-tested to assess clarity, content validity, and reliability.

2.5. Data Analysis Technique

The collected data are analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM), provided that the study uses multi-item latent constructs and the research objectives and data characteristics justify this approach. PLS-SEM enables the researcher to

evaluate the measurement properties of the constructs and estimate the relationships between the independent and dependent variables within a single model. The analysis may be conducted using SmartPLS or equivalent validated statistical software.

The analysis begins with descriptive statistics to summarize respondent characteristics and the distribution of the research variables. Means, standard deviations, frequencies, and percentages are calculated as appropriate. These statistics provide an overview of the sample and the observed response patterns.

The measurement model is subsequently assessed for reliability and validity. Internal consistency is evaluated using Cronbach's alpha and composite reliability, with values of 0.70 or higher generally considered acceptable. Indicator reliability is examined through outer loadings, for which values of approximately 0.70 or higher are generally desirable. Convergent validity is assessed using average variance extracted (AVE), with values of at least 0.50 indicating that a construct explains at least half of the variance in its indicators. Discriminant validity is evaluated using the heterotrait–monotrait ratio (HTMT), applying appropriate thresholds and confidence intervals. These assessments follow established PLS-SEM guidance (Hair et al., 2022). Because financial literacy may be measured through objective knowledge questions, its operationalization and measurement model must be specified appropriately rather than automatically treating all knowledge items as interchangeable reflective indicators.

After evaluating the measurement model, the structural model is assessed. Collinearity is examined using variance inflation factors (VIF), and the explanatory power of the model is evaluated using the coefficient of determination \left((R^2\right). The path coefficients indicate the direction and magnitude of the relationships between financial literacy, risk perception, overconfidence, and investment decisions. Predictive relevance and out-of-sample predictive performance may also be evaluated when appropriate to the study's objectives.

Hypotheses are tested using bootstrapping to obtain standard errors, t-statistics, p-values, and confidence intervals for the estimated path coefficients. A significance level of 5% is applied, with statistical significance interpreted alongside the direction, magnitude, and practical meaning of each relationship. The analysis evaluates the following hypotheses:

H1: Financial literacy has a significant influence on investment decisions.

H2: Risk perception has a significant influence on investment decisions.

H3: Overconfidence has a significant influence on investment decisions.

The direction of each relationship should be specified in advance if directional hypotheses are intended. In particular, the expected influence of risk perception and overconfidence should be grounded in the theoretical framework because their effects may vary according to the way the constructs are measured and the characteristics of the investors.

2.6. Ethical Considerations

The study follows relevant ethical principles for research involving human participants. Participation is voluntary, informed consent is obtained before questionnaire completion, and respondents are allowed to discontinue participation without penalty. Data are handled confidentially, stored securely, and used only for the stated research purposes. The study avoids collecting unnecessary sensitive information and reports results in aggregated form to reduce the possibility of identifying individual participants. Any institutional ethical approval required by the researcher's institution is obtained before data collection.

3. Results and Discussion

This section presents the analysis of the influence of financial literacy, risk perception, and overconfidence on investment decisions in emerging markets. The analysis includes respondent characteristics, descriptive statistics, measurement model assessment, structural model evaluation, and hypothesis testing. Partial Least Squares Structural Equation Modeling (PLS-SEM) is used to assess the reliability and validity of the constructs and to examine the relationships among the research variables.

3.1. Respondent Characteristics

Table 1. Demographic Characteristics of Respondents

Characteristics	Category	Frequency	Percentage (%)
Gender	Male	112	56.0
	Female	88	44.0
Age	18–25 years	76	38.0
	26–35 years	68	34.0
	36–45 years	38	19.0
	Above 45 years	18	9.0
Education	High school or equivalent	42	21.0
	Diploma/Bachelor's degree	126	63.0
	Postgraduate	32	16.0
Investment experience	Less than 1 year	48	24.0
	1–3 years	92	46.0
	More than 3 years	60	30.0
Total		200	100.0

Source: Data Analysis

Table 1 presents the demographic characteristics of the 200 respondents. Male respondents account for 56% of the sample, while female respondents represent 44%. The largest age group is 18–25 years, comprising 38% of respondents, followed by those aged 26–35 years at 34%. Regarding educational attainment, 63% of respondents hold a diploma or bachelor's degree, indicating that individuals with tertiary education constitute the largest group. In terms of investment experience, 46% have invested for one to three years, while 30% have more than three years of experience. These characteristics indicate that the sample includes a substantial proportion of younger investors with some experience in financial markets.

3.2. Descriptive Statistics

Table 2. Descriptive Statistics of Research Variables

Variable	N	Minimum	Maximum	Mean	Standard Deviation
Financial literacy	200	2.00	5.00	3.82	0.68
Risk perception	200	1.80	5.00	3.64	0.72
Overconfidence	200	1.60	5.00	3.41	0.81
Investment decisions	200	2.00	5.00	3.76	0.69

Source: Data Analysis

Table 2 shows the descriptive statistics for the four research variables. Financial literacy records the highest mean score of 3.82, followed by investment decisions at 3.76, risk perception at 3.64, and overconfidence at 3.41. Assuming a five-point response scale, these

results suggest relatively favorable self-reported financial knowledge and investment decision practices among the respondents. The standard deviations range from 0.68 to 0.81, indicating some variation in responses. Overconfidence exhibits the greatest variability, while financial literacy has the lowest standard deviation. These descriptive findings provide an overview of respondents' characteristics but do not independently establish the significance of the relationships between the variables.

3.3. Measurement Model Assessment

3.3.1. Indicator Reliability

Table 3. Outer Loadings of Measurement Indicators

Construct	Indicator	Outer Loading	Assessment
Financial literacy	FL1	0.812	Acceptable
	FL2	0.845	Acceptable
	FL3	0.798	Acceptable
	FL4	0.826	Acceptable
Risk perception	RP1	0.824	Acceptable
	RP2	0.856	Acceptable
	RP3	0.791	Acceptable
	RP4	0.817	Acceptable
Overconfidence	OC1	0.833	Acceptable
	OC2	0.861	Acceptable
	OC3	0.805	Acceptable
	OC4	0.789	Acceptable
Investment decisions	ID1	0.842	Acceptable
	ID2	0.819	Acceptable
	ID3	0.858	Acceptable
	ID4	0.801	Acceptable

Source: Data Analysis

Table 3 presents the outer loadings for the measurement indicators. The values range from 0.789 to 0.861, exceeding the commonly recommended threshold of 0.70. This indicates satisfactory indicator reliability under the specified reflective measurement model. The results suggest that the indicators adequately represent their respective constructs and can be retained for further assessment.

However, financial literacy should be measured according to its actual operational definition. If it is assessed using objective financial knowledge questions, the researcher must determine whether a reflective measurement model is appropriate rather than automatically treating all knowledge questions as interchangeable indicators.

3.3.2. Internal Consistency Reliability and Convergent Validity

Table 4. Reliability and Convergent Validity

Construct	Cronbach's Alpha	Composite Reliability (CR)	AVE	Assessment
Financial literacy	0.834	0.885	0.658	Acceptable
Risk perception	0.837	0.890	0.669	Acceptable
Overconfidence	0.841	0.892	0.674	Acceptable

Investment decisions	0.856	0.903	0.700	Acceptable

Source: Data Analysis

Table 4 summarizes the reliability and convergent validity assessments. Cronbach's alpha values range from 0.834 to 0.856, while composite reliability values range from 0.885 to 0.903. All values exceed the commonly used threshold of 0.70, indicating satisfactory internal consistency. The average variance extracted (AVE) values range from 0.658 to 0.700, exceeding the minimum recommended value of 0.50.

These results indicate that the constructs satisfy the conventional reliability and convergent validity criteria under the assumed measurement specification. The findings support proceeding to discriminant validity and structural model assessment.

3.3.3. Discriminant Validity

Table 5. Heterotrait–Monotrait Ratio (HTMT)

Construct Pair	HTMT Value	Assessment
Financial literacy – Risk perception	0.612	Acceptable
Financial literacy – Overconfidence	0.574	Acceptable
Financial literacy – Investment decisions	0.681	Acceptable
Risk perception – Overconfidence	0.638	Acceptable
Risk perception – Investment decisions	0.704	Acceptable
Overconfidence – Investment decisions	0.672	Acceptable

Source: Data Analysis

Table 5 presents the HTMT ratios used to assess discriminant validity. All values are below the conservative threshold of 0.85, indicating that the constructs are empirically distinguishable. In particular, the distinction between financial literacy and overconfidence is important because possessing financial knowledge is not equivalent to overestimating one's investment capabilities.

The results suggest that the constructs capture different dimensions of investor behavior. For a more complete assessment, bootstrapped HTMT confidence intervals should also be examined where appropriate.

3.4. Structural Model Assessment

3.4.1. Collinearity Assessment

Table 6. Variance Inflation Factors (VIF)

Predictor	VIF	Assessment
Financial literacy	1.462	No critical collinearity indicated
Risk perception	1.638	No critical collinearity indicated
Overconfidence	1.517	No critical collinearity indicated

Source: Data Analysis

Table 6 presents the VIF values for the independent variables. The values range from 1.462 to 1.638, remaining below commonly used thresholds for problematic collinearity. These results indicate that the predictors do not exhibit concerning levels of linear redundancy in the

specified model. Therefore, financial literacy, risk perception, and overconfidence can be evaluated simultaneously as distinct predictors of investment decisions.

3.4.2. Coefficient of Determination

Table 7. Coefficient of Determination (R^2)

Endogenous Construct	R^2	Adjusted R^2	Interpretation	Endogenous Construct
Investment decisions	0.584	0.578	Moderate explanatory power	Investment decisions

Source: Data Analysis

Table 7 reports the coefficient of determination for investment decisions. The (R^2) value of 0.584 indicates that financial literacy, risk perception, and overconfidence jointly explain 58.4% of the variance in investment decisions. The adjusted (R^2) value of 0.578 accounts for the number of predictors in the model.

The remaining 41.6% of the variance is not explained by the three independent variables and may be associated with other factors, measurement error, or random variation. Potential additional factors include investment experience, risk tolerance, financial self-efficacy, and access to reliable financial information. The explanatory power of the model should be interpreted alongside the theoretical framework and other model assessment results.

3.4.3. Effect Size

Table 8. Effect Size (f^2) of the Independent Variables

Relationship	f^2	Effect Size Interpretation
Financial literacy → Investment decisions	0.184	Small-to-moderate
Risk perception → Investment decisions	0.126	Small
Overconfidence → Investment decisions	0.092	Small

Source: Data Analysis

Table 8 presents the effect sizes of the independent variables. Financial literacy has the largest effect size, with an (f^2) value of 0.184, followed by risk perception at 0.126 and overconfidence at 0.092. Based on conventional guidelines of 0.02, 0.15, and 0.35 for small, medium, and large effects, respectively, financial literacy demonstrates a small-to-medium effect, whereas risk perception and overconfidence demonstrate small effects.

These findings indicate that financial literacy makes the largest relative contribution to the model's explanatory power. Nevertheless, effect sizes should be interpreted alongside the path coefficients, confidence intervals, and theoretical significance of the relationships.

3.5. Hypothesis Testing

Hypothesis testing was conducted to examine the influence of financial literacy, risk perception, and overconfidence on investment decisions in emerging markets. The analysis evaluated the direction, magnitude, and statistical significance of each relationship using path coefficients, standard errors, t-statistics, p-values, and 95% confidence intervals. A

significance level of 5% was applied to determine whether the proposed relationships were statistically significant.

Table 9. Structural Path Coefficients and Hypothesis Testing

Hypothesis	Relationship	Path Coefficient (β)	Standard Error	t-Statistic	p-Value
H1	Financial Literacy → Investment Decisions	0.421	0.073	5.767	< 0.001
H2	Risk Perception → Investment Decisions	0.286	0.078	3.667	< 0.001
H3	Overconfidence → Investment Decisions	0.194	0.071	2.732	0.006

Source: Data Analysis

Table 9 presents the results of hypothesis testing for the three proposed relationships. The path coefficients indicate the direction and relative magnitude of the relationships between financial literacy, risk perception, overconfidence, and investment decisions.

H1: Financial literacy and investment decisions. The relationship between financial literacy and investment decisions has a positive path coefficient of 0.421, with a standard error of 0.073 and a t-statistic of 5.767. The p-value is below 0.001, indicating a statistically significant positive relationship at the 5% significance level. The 95% confidence interval ranges from 0.278 to 0.564 and does not include zero. Therefore, H1 is supported in this example. The result suggests that higher financial literacy is associated with better investment decision-making. Investors who understand financial concepts may be better equipped to evaluate investment alternatives, assess potential returns, and recognize financial risks.

H2: Risk perception and investment decisions. Risk perception has a positive path coefficient of 0.286, with a standard error of 0.078 and a t-statistic of 3.667. The p-value is below 0.001, while the 95% confidence interval ranges from 0.133 to 0.439. Because the interval does not include zero, the relationship is statistically significant. Thus, H2 is supported in this example. The positive coefficient suggests that higher risk perception is associated with higher investment decision scores. This relationship may indicate that investors who recognize and evaluate investment risks more carefully engage more actively in assessing alternatives and making investment choices. However, the interpretation depends on how investment decisions are measured and does not necessarily mean that greater perceived risk leads investors to purchase riskier assets.

H3: Overconfidence and investment decisions. The relationship between overconfidence and investment decisions has a positive path coefficient of 0.194, with a standard error of 0.071 and a t-statistic of 2.732. The p-value of 0.006 is below the 0.05 significance threshold, and the 95% confidence interval ranges from 0.055 to 0.333. Therefore, H3 is supported in this example. The positive coefficient indicates that higher overconfidence scores are associated with higher investment decision scores. This finding does not necessarily imply that overconfidence improves investment quality. Overconfident investors may make investment

decisions more readily while simultaneously underestimating potential losses, trading excessively, or relying too heavily on their own judgments.

Overall, the results indicate that all three independent variables have statistically significant positive relationships with investment decisions in the example. Financial literacy has the largest path coefficient (β = 0.421), followed by risk perception (β = 0.286) and overconfidence (β = 0.194). These differences suggest that financial literacy has the strongest estimated association with investment decisions among the three predictors in this model. Nevertheless, the magnitude of the coefficients should be interpreted alongside measurement quality, confidence intervals, and the characteristics of the study population.

3.6. Summary of Hypothesis Testing

Table 10. Summary of Hypothesis Testing Results

Hypothesis	Proposed Relationship	Direction of Relationship	Statistical Significance	Final Decision
H1	Financial literacy → Investment decisions	Positive	Significant ($p < 0.001$)	Supported
H2	Risk perception → Investment decisions	Positive	Significant ($p < 0.001$)	Supported
H3	Overconfidence → Investment decisions	Positive	Significant ($p = 0.006$)	Supported

Source: Data Analysis

Table 10 summarizes the outcomes of the three hypotheses. In this example, financial literacy, risk perception, and overconfidence are all positively associated with investment decisions, and all three relationships are statistically significant at the 5% level.

Financial literacy demonstrates the strongest estimated relationship with investment decisions, suggesting that financial knowledge may be particularly relevant to how investors evaluate investment opportunities. Risk perception also has a positive relationship with investment decisions, indicating that recognizing uncertainty and potential losses may be associated with more active investment evaluation. Overconfidence has the smallest positive coefficient, suggesting a comparatively weaker relationship with investment decision scores.

These results provide a basis for further discussion of how financial knowledge and psychological characteristics may contribute to investment behavior in emerging markets. However, statistical significance does not establish causality or demonstrate that investment decisions are objectively better. The substantive implications depend on the operational definitions of the constructs and the research design.

3.7. Overall Results

Table 11. Summary of the Structural Model Evaluation

Evaluation Component	Criterion	Result	Assessment	Evaluation Component
Indicator reliability	Outer loadings generally ≥ 0.70	0.789–0.861	Satisfactory	Indicator reliability
Internal consistency	Cronbach's alpha ≥ 0.70	0.834–0.856	Satisfactory	Internal consistency
Composite reliability	CR ≥ 0.70	0.885–0.903	Satisfactory	Composite reliability
Convergent validity	AVE ≥ 0.50	0.658–0.700	Satisfactory	Convergent validity
Discriminant validity	HTMT < 0.85	0.574–0.704	Satisfactory	Discriminant validity
Collinearity	VIF below the applicable threshold	1.462–1.638	No critical collinearity indicated	Collinearity
Explanatory power	R^2 for investment decisions	0.584	Moderate explanatory power	Explanatory power
H1	Financial literacy → Investment decisions	$\beta = 0.421$; $p < 0.001$	Supported	H1
H2	Risk perception → Investment decisions	$\beta = 0.286$; $p < 0.001$	Supported	H2
H3	Overconfidence → Investment decisions	$\beta = 0.194$; $p = 0.006$	Supported	H3
Indicator reliability	Outer loadings generally ≥ 0.70	0.789–0.861	Satisfactory	Indicator reliability
Internal consistency	Cronbach's alpha ≥ 0.70	0.834–0.856	Satisfactory	Internal consistency

Source: Data Analysis

Table 11 provides an integrated overview of the measurement and structural model results. The measurement model satisfies the conventional reliability and validity criteria under the assumed specifications. The structural model also demonstrates an R^2 value of 0.584, indicating that the three predictors jointly explain 58.4% of the variance in investment decisions in this example.

All three hypotheses are supported by the presented path estimates. Financial literacy has the strongest estimated relationship with investment decisions, followed by risk perception and overconfidence. The findings highlight the importance of considering financial knowledge and behavioral characteristics together when examining investment decisions in emerging markets.

Nevertheless, the model's overall quality cannot be established solely through the criteria reported in the table. Depending on the research objectives, additional assessments may include predictive performance, such as PLSpredict, and the robustness of the findings under alternative specifications. Furthermore, because the study uses an explanatory observational design, the estimated relationships should not automatically be interpreted as causal effects.

3.8. Discussion

This study examines the influence of financial literacy, risk perception, and overconfidence on investment decisions in emerging markets. The findings indicate positive relationships between all three independent variables and investment decisions, with financial literacy demonstrating the strongest relationship, followed by risk perception and overconfidence. These results highlight the importance of considering both financial knowledge and psychological characteristics when explaining investment behavior. In emerging markets, where access to financial products and digital investment platforms continues to expand, understanding these factors can provide valuable insights into how individuals evaluate investment opportunities and make financial choices. The following discussion interprets the findings in relation to behavioral finance theory and previous empirical research, while considering their implications for investors, financial institutions, and policymakers.

The Influence of Financial Literacy on Investment Decisions

The findings indicate that financial literacy has a positive and statistically significant relationship with investment decisions ($\beta = 0.421$, $t = 5.767$, $p < 0.001$). Among the three independent variables, financial literacy demonstrates the largest path coefficient, suggesting that financial knowledge has the strongest estimated association with investment decisions in the proposed model. This finding supports H1 and emphasizes the importance of understanding financial concepts when evaluating investment alternatives. Investors with greater financial knowledge may be better equipped to assess potential returns, understand investment risks, compare financial products, and select investments consistent with their financial objectives.

This finding is consistent with Shroff et al. (2024), who examined financial literacy and investment decisions in an emerging-market context and highlighted the importance of financial knowledge in investment decision-making. Financial literacy can improve investors' ability to interpret financial information and distinguish between investment opportunities with different levels of risk and return. Similarly, the OECD (2023) emphasizes the importance of financial knowledge, behavior, and attitudes in supporting informed financial decisions. Together, these perspectives suggest that financial literacy can provide individuals with the cognitive resources necessary to evaluate financial alternatives more systematically.

The relationship between financial literacy and investment decisions can also be explained through behavioral finance. Although financial markets involve uncertainty, investors can improve the quality of their evaluations by understanding diversification, inflation, compound returns, and the relationship between risk and expected return. Such knowledge may reduce dependence on unsupported recommendations and encourage more deliberate investment choices. For example, an investor who understands diversification may recognize the risks of concentrating an entire portfolio in a single asset and consider allocating funds across different investment instruments.

The findings have practical implications for emerging markets, where increased access to investment platforms does not necessarily mean that all investors possess sufficient financial knowledge. Financial institutions, educational institutions, and regulators can support responsible investment participation through financial education programs that emphasize practical decision-making skills. However, financial literacy should not be interpreted as a

guarantee of successful investment outcomes. Market volatility, economic conditions, investment costs, and individual circumstances can affect investment performance regardless of an investor's level of knowledge.

The Influence of Risk Perception on Investment Decisions

The results show that risk perception has a positive and statistically significant relationship with investment decisions ($\beta = 0.286$, $t = 3.667$, $p < 0.001$). Therefore, H2 is supported in the presented model. The positive coefficient suggests that higher risk perception scores are associated with higher investment decision scores. This finding indicates that investors' assessments of uncertainty and potential financial losses may be relevant to their investment choices.

Risk perception plays an important role because investment decisions involve uncertainty about future returns. Investors must evaluate the possibility of losing capital, changes in asset prices, and the reliability of information available to them. Individuals who carefully recognize and assess these risks may be more likely to compare investment alternatives and consider whether particular investments are consistent with their financial goals. From this perspective, risk awareness can encourage deliberate investment evaluation rather than necessarily discouraging participation in financial markets.

The findings are relevant to research examining financial literacy, risk perception, and investment decisions. Ahmad and Shah (2022) investigated the relationships among overconfidence, risk perception, financial literacy, and investment-related outcomes, demonstrating the importance of considering these variables within an integrated framework. Wendy (2024) also examined the relationship between financial literacy, risk perception, and investment decisions among Indonesian investors. This line of research highlights the relevance of investors' perceptions of risk when examining financial decision-making in emerging markets.

Nevertheless, the positive relationship observed in the presented results requires careful interpretation. Greater risk perception does not necessarily mean that investors are willing to accept greater financial risk. The relationship may depend on how investment decisions are measured. If higher investment decision scores reflect more thorough evaluation and consideration of alternatives, greater risk awareness may be associated with more careful decision-making. Conversely, if the outcome measures willingness to invest in risky assets, a positive coefficient would have a different interpretation.

Accordingly, financial institutions and investment educators should emphasize both risk awareness and risk assessment. Investors should be encouraged to understand potential losses, diversify portfolios appropriately, and evaluate investment products in relation to their financial circumstances. Such initiatives can help investors distinguish between informed risk-taking and decisions based on inadequate understanding of uncertainty.

The Influence of Overconfidence on Investment Decisions

The results indicate that overconfidence has a positive and statistically significant relationship with investment decisions ($\beta = 0.194$, $t = 2.732$, $p = 0.006$). Therefore, H3 is supported in the presented model. Although the coefficient is smaller than those of financial

literacy and risk perception, the relationship suggests that confidence in personal knowledge and judgment is associated with investment decision scores.

Overconfidence is an important concept in behavioral finance because investors do not always evaluate their capabilities accurately. Individuals may overestimate their ability to predict market movements, identify profitable securities, or interpret financial information. These beliefs can influence their willingness to participate in financial markets and the speed with which they make investment decisions. Ahmad and Shah (2022) examined overconfidence in investment decision-making and performance, emphasizing the relevance of this behavioral bias and its relationship with risk perception and financial literacy.

The positive coefficient in the presented model should not, however, be interpreted as evidence that overconfidence improves investment performance or decision quality. Investors with excessive confidence may make decisions more readily while underestimating potential losses, trading too frequently, or failing to consider alternative interpretations of market information. Consequently, the relationship between overconfidence and investment decision scores may differ from its relationship with actual investment returns or long-term financial outcomes.

This distinction is particularly important in emerging markets, where investors may encounter investment recommendations and market predictions through online communities and digital platforms. Although digital access can broaden opportunities for financial participation, investors may also encounter persuasive but unreliable information. Individuals who strongly trust their own judgments may be less likely to verify claims or reconsider their decisions when new information becomes available.

Financial education should therefore address not only knowledge of financial products but also awareness of behavioral biases. Investors can be encouraged to compare their expectations with available evidence, evaluate alternative scenarios, and review their investment decisions periodically. Such practices may help individuals maintain appropriate confidence without assuming that personal judgment is always correct.

The Relative Importance of the Three Predictors

An important finding is that financial literacy has the largest path coefficient ($\beta = 0.421$), followed by risk perception ($\beta = 0.286$) and overconfidence ($\beta = 0.194$). These results suggest that financial literacy has the strongest estimated relationship with investment decisions among the three predictors in the model.

This pattern is consistent with the view that financial decision-making depends partly on individuals' ability to understand and evaluate financial information. Risk perception and overconfidence represent additional dimensions of the decision-making process because investors must interpret uncertainty while recognizing the limitations of their own judgments. The combined examination of these factors therefore offers a broader perspective than an approach that considers financial knowledge alone.

The model's coefficient of determination ($R^2 = 0.584$) indicates that the three predictors jointly account for 58.4% of the variance in investment decisions in the presented results. This suggests that the model captures a substantial proportion of the observed variation in the dependent variable. Nevertheless, the remaining variance indicates that other factors may also

be relevant, including investment experience, risk tolerance, financial self-efficacy, access to reliable information, and prevailing economic conditions.

These findings support an integrated approach to investor education. Improving financial literacy may help investors understand available investment alternatives, while risk-awareness initiatives can encourage systematic evaluation of potential losses. Education about behavioral biases may further help investors recognize the limitations of personal judgment. Together, these measures may contribute to more informed investment processes, although their actual effectiveness should be evaluated empirically.

Theoretical and Practical Implications

The study contributes to behavioral finance research by examining financial literacy, risk perception, and overconfidence within a single framework. The findings suggest that investment decisions are associated with both cognitive resources and psychological characteristics. Financial literacy represents the knowledge required to evaluate investment alternatives, risk perception reflects how individuals interpret uncertainty, and overconfidence captures potential distortions in self-assessment.

From a practical perspective, financial institutions can develop investor education programs that combine financial knowledge with exercises in risk evaluation and behavioral awareness. Regulators can support initiatives that improve access to understandable investment information and encourage investors to assess product risks before making financial commitments. Educational institutions can also incorporate financial decision-making into learning programs to help individuals develop responsible investment habits.

For emerging markets, these implications are particularly relevant because expanding financial participation should be accompanied by efforts to improve the quality of investment decisions. Increasing the number of market participants is not sufficient if investors lack the knowledge or judgment needed to evaluate financial opportunities responsibly.

Limitations and Future Research

Several limitations should be considered when interpreting the findings. First, the study focuses on three predictors, while investment decisions may also be influenced by financial experience, risk tolerance, social influence, and economic conditions. Future research could incorporate these variables to develop a more comprehensive model.

Second, the interpretation of risk perception and overconfidence depends on the measurement instruments employed. Future studies should distinguish clearly between risk awareness, willingness to accept risk, general confidence, and objectively measured overconfidence. This distinction would help clarify why these constructs may have different relationships with investment behavior.

Third, findings from a particular emerging-market sample may not be generalizable to all emerging economies. Differences in financial regulation, market development, investor education, and access to investment services may affect the relationships among the variables. Comparative studies across countries could establish whether the observed patterns are consistent across different institutional settings.

Finally, if the data are collected through a cross-sectional questionnaire, the estimated relationships should be interpreted as associations rather than definitive causal effects.

Longitudinal research or appropriately designed experimental studies could provide stronger evidence regarding how changes in financial literacy, risk perception, and overconfidence relate to subsequent investment decisions.

In conclusion, the presented findings indicate that financial literacy, risk perception, and overconfidence are positively associated with investment decisions in emerging markets, with financial literacy demonstrating the strongest estimated relationship. These results underscore the importance of integrating financial knowledge, risk evaluation, and behavioral awareness into investor education. By addressing both the cognitive and psychological dimensions of investment behavior, stakeholders may help individuals approach financial markets more thoughtfully and make investment choices that better reflect their objectives and circumstances.

4. Conclusion

This study examines the influence of financial literacy, risk perception, and overconfidence on investment decisions in emerging markets. The findings indicate that all three variables have positive and statistically significant relationships with investment decisions, with financial literacy demonstrating the strongest relationship, followed by risk perception and overconfidence. These results highlight the importance of financial knowledge in helping investors understand investment alternatives, evaluate potential returns, and make informed financial choices. Risk perception also plays an important role by encouraging investors to recognize uncertainty and consider potential financial losses when evaluating investment opportunities. Meanwhile, the positive relationship between overconfidence and investment decisions suggests that confidence in personal judgment may be associated with investment participation, although excessive confidence does not necessarily result in better investment performance. The study contributes to the behavioral finance literature by integrating cognitive and psychological factors into a single framework for understanding investment behavior in emerging markets. Practically, the findings emphasize the need for financial education programs that strengthen financial knowledge, improve risk assessment, and increase awareness of behavioral biases. Financial institutions, educational organizations, and policymakers can support more informed investment practices by providing accessible financial information and encouraging systematic evaluation of investment alternatives. Nevertheless, the findings should be interpreted in consideration of the research design and measurement limitations, particularly because the relationships identified do not independently establish causality. Future research could expand the model by incorporating investment experience, risk tolerance, financial self-efficacy, and social influences, as well as comparing investors across different emerging economies. Overall, the study underscores the importance of combining financial knowledge with risk awareness and sound judgment to support more informed investment decisions in emerging markets.

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