International Journal of Management Science and Information Technology
IJMSIT

E-ISSN: 2774-5694 P-ISSN: 2776-7388 OPEN ACCESS

Volume 6 (1), January-June 2026, 609-618
DOI: https://doi.org/10.35870/ijmsit.v6i1.6979

Bitcoin Risk Perception and Investment Behavior: The Role of Literacy and Trust

I Made Ardita [1*], Ni Made Suci [2], Fridayana Yudiatmaja [3]
[1*,2,3] Department of Magister Management, Universitas Pendidikan Ganesha, Buleleng Regency, Bali Province, Indonesia

Email: madeardita24@gmail.com [1*], made.suci@undiksha.ac.id [2], fridayana@undiksha.ac.id [3]

Article history:
Received April 17, 2026
Revised May 20, 2026
Accepted May 25, 2026

Abstract
This study aims to examine the effect of Bitcoin risk perception on stock investment decisions by considering the mediating roles of financial literacy and investor trust. The rapid development of digital financial technology, particularly cryptocurrencies, has introduced new dimensions of risk that influence investor behavior across financial instruments. This research adopts a quantitative approach with an explanatory design, involving 120 respondents selected through purposive sampling. Data were collected using structured questionnaires and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The results indicate that Bitcoin risk perception has a positive and significant effect on financial literacy, investor trust, and stock investment decisions. Furthermore, financial literacy and investor trust significantly influence stock investment decisions and serve as partial mediators in the relationship between Bitcoin risk perception and investment decisions. These findings suggest that higher awareness of cryptocurrency risk encourages individuals to enhance their financial understanding and develop rational trust, ultimately leading to more informed investment decisions in the stock market. This study contributes to the integration of behavioral finance and financial technology by highlighting the indirect mechanisms through which risk perception shapes investment behavior. Practically, the results emphasize the importance of financial education and transparent information in improving investor decision-making in the digital era.

Keywords:
Bitcoin risk perception; Financial literacy; Investor trust; Stock investment decisions; Behavioral finance.

1. INTRODUCTION

The rapid advancement of information technology in recent years has driven significant transformations in the global financial system, particularly through the emergence of digital assets such as Bitcoin. As a blockchain-based innovation, Bitcoin not only functions as a digital payment instrument but has also evolved into an alternative investment vehicle that attracts investors worldwide. This phenomenon is highly relevant within the field of management science and information technology, as it reflects how technological progress shapes financial behavior and investment decision-making (Corbet et al., 2022). In the context of global financial markets, Bitcoin is widely recognized for its high level of volatility compared to conventional investment instruments such as stocks. The substantial price fluctuations of Bitcoin indicate a high degree of uncertainty, which subsequently forms risk perceptions among investors. Such risk perception plays a crucial role in explaining investment behavior from a behavioral finance perspective, which emphasizes that investment decisions are often influenced by subjective perceptions of risk and uncertainty (Baker & Ricciardi, 2022). To provide an empirical illustration, the development of Bitcoin and the global stock index over the period 2020–2024 is presented table 1.

Table 1. Development of Bitcoin and Global Stock Index (2020–2024)

Year	Average Bitcoin Price (USD)	Annual Change (%)	Global Stock Index (MSCI World Index)	Change (%)
2020	11,333	305%	2,697	14%
2021	47,686	59%	3,232	22%
2022	28,993	-64%	2,607	-18%
2023	34,463	19%	3,158	21%
2024	42,258	23%	3,663	16%

Source: processed data from Coin Market Cap, MSCI, and Yahoo Finance

The data presented in Table 1 indicate that Bitcoin exhibits a significantly higher level of volatility compared to the global stock index. The substantial price surge during 2020–2021, followed by a sharp decline in 2022, reflects the speculative nature of Bitcoin. This condition reinforces the perception that Bitcoin is a high-risk asset. Such risk perception not only influences investment decisions related to Bitcoin itself but also affects decisions concerning other investment instruments, such as relatively more stable stocks. Within the framework of behavioral finance, risk perception serves as a key determinant in investment decision-making. Individuals with a high perception of risk tend to avoid risky assets and reallocate their investments toward safer instruments, whereas those with lower risk perception are more inclined to make aggressive investment decisions (Baker & Ricciardi, 2022). However, the relationship between risk perception and investment decisions does not occur directly, but is influenced by internal factors such as financial literacy and investor trust.

Financial literacy refers to an individual's ability to understand financial concepts, including risk, diversification, and investment management. Lusardi et al. (2021) argue that individuals with higher financial literacy are more likely to make rational investment decisions. In the context of Bitcoin, financial literacy enables investors to assess risks objectively and reduces susceptibility to short-term market fluctuations. Therefore, financial literacy functions as a cognitive mechanism that mediates the relationship between risk perception and investment decisions.

In addition, investor trust is another important factor in determining investment decisions. Trust reflects an individual's confidence in market stability and the security of investment instruments. Nguyen and Pham (2023) found that investor trust significantly influences investment decisions, particularly under conditions of market uncertainty. In the case of Bitcoin, trust may be shaped by regulatory frameworks, system security, and technological transparency, which ultimately determine how investors respond to existing risks.

Previous studies have extensively examined the relationships among Bitcoin, risk, and investment behavior. Corbet et al. (2022) found that Bitcoin is characterized by high volatility and is often perceived as a speculative asset. Umar et al. (2021) demonstrated that risk perception has a significant effect on investment decisions. Lusardi et al. (2021) emphasized that financial literacy enhances the quality of decision-making, while Nguyen and Pham (2023) highlighted the role of investor trust in increasing investment activity. Nevertheless, most prior studies have primarily focused on direct relationships between variables and have paid limited attention to the simultaneous role of intervening variables. Based on this review, several research gaps can be identified. First, previous studies tend to position Bitcoin as the primary investment object rather than as a factor influencing investment decisions in other instruments such as stocks. Second, there is still limited research integrating financial literacy and investor trust simultaneously as intervening variables. Third, recent empirical studies examining the effect of Bitcoin risk perception on stock investment decisions from a behavioral finance perspective remain relatively scarce, particularly in the context of the intersection between technology and financial behavior.

Based on this background, the research problem addressed in this study is how Bitcoin risk perception influences stock investment decisions through financial literacy and investor trust. Accordingly, this study aims to analyze the effect of Bitcoin risk perception on financial literacy and investor trust, as well as to examine how these variables mediate the relationship with stock investment decisions. This research is expected to contribute theoretically to the development of behavioral finance literature and to provide practical insights for investors in improving the quality of investment decision-making in the digital era.

2. RESEARCH METHOD

This study employs a quantitative approach with an explanatory research design aimed at examining the causal relationship between Bitcoin risk perception and stock investment decisions, with financial literacy and investor trust acting as intervening variables. This approach was selected because it allows for an empirical and measurable explanation of the relationships among variables, aligning with the study's objective of hypothesis testing. The population consists of individuals who possess knowledge of or interest in investments, particularly in stocks and Bitcoin. The sampling technique used is purposive sampling, with criteria including individuals aged at least 18 years, having a basic understanding of investment, and having experience or interest in investment activities. The sample size was determined based on the Structural

Equation Modeling (SEM) approach, specifically ten times the number of indicators, resulting in a total of 120 respondents, which is considered sufficient to produce stable and representative model estimates. The respondents in this study primarily consisted of retail investors and individuals with a strong interest in financial investment activities, including university students, early-career employees, entrepreneurs, and private-sector professionals who were familiar with stock and cryptocurrency investments. Geographically, the respondents were drawn from several urban areas in Indonesia with relatively high exposure to digital financial platforms and investment activities. The inclusion of respondents from diverse educational and occupational backgrounds was intended to capture broader perspectives regarding Bitcoin risk perception and investment decision-making behavior. This demographic composition provides a more comprehensive understanding of how financial literacy and investor trust influence stock investment decisions across different categories of individual investors

The data used in this study are primary data collected through an online questionnaire employing a five-point Likert scale ranging from strongly disagree to strongly agree. The research instrument was developed based on indicators derived from recent literature relevant to the variables under study, including Bitcoin risk perception, financial literacy, investor trust, and stock investment decisions. Prior to data collection, the instrument was tested for validity and reliability to ensure measurement accuracy and consistency, using criteria such as outer loading values greater than 0.7 and Cronbach's Alpha and Composite Reliability values exceeding 0.7. The research procedure was carried out systematically, beginning with instrument development, followed by a pilot test, the distribution of the main questionnaire over approximately three to four weeks, and data selection and cleaning processes to ensure completeness and quality. All procedures were conducted without direct intervention with respondents in order to maintain objectivity and reflect actual investment decision-making conditions.

Data analysis was conducted using Partial Least Squares Structural Equation Modeling (PLS-SEM) with the support of SmartPLS software, chosen for its ability to analyze complex relationships among latent variables and to assess mediation effects simultaneously. The analysis stages included evaluation of the measurement model (outer model) through tests of convergent validity, discriminant validity, and construct reliability, as well as evaluation of the structural model (inner model) through the assessment of the coefficient of determination (R^2), path coefficients, and significance testing using bootstrapping. Additionally, indirect effects were examined to identify the mediating roles of financial literacy and investor trust. Ethical considerations were also addressed by ensuring informed consent, maintaining data confidentiality, and using the data solely for academic purposes. Nevertheless, this study acknowledges limitations, including potential subjective bias from respondents and the use of cross-sectional data; however, these limitations were mitigated through a standardized instrument design and careful sample selection in accordance with the study criteria.

3. RESULTS AND DISCUSSION

3.1. Research Results

The evaluation of the measurement model in this study was conducted by examining the outer loading values of each indicator on its corresponding latent construct, namely Bitcoin Risk Perception, Financial Literacy, Investor Trust, and Stock Investment Decisions. Outer loading values reflect the degree of correlation between indicators and their latent variables, thus serving as the basis for assessing convergent validity. In general, an indicator is considered to have adequate validity when its outer loading exceeds 0.70. However, in the context of exploratory social research, values above 0.60 are still considered acceptable, provided that the indicators continue to make a meaningful contribution to the construct being measured.

Table 2. Outer Loading

	Bitcoin Risk Perception	Financial Literacy	Investor Trust	Stock Investment Decisions
BRP1	0.682			
BRP2	0.740			
BRP3	0.733			
BRP4	0.764			
FL1		0.729		
FL2		0.708		
FL3		0.739		
FL4		0.762		
IT1			0.663	
IT2			0.783	
IT3			0.719	
IT4			0.678	
SID1				0.704

SID2	0.873
SID3	0.869
SID4	0.798

Source: processed data, SEM-PLS3 2026

The results of the analysis indicate that all indicators of the Bitcoin Risk Perception variable have outer loading values ranging from 0.682 to 0.764, suggesting that these indicators consistently represent the construct being measured, although one indicator falls slightly below the ideal threshold. For the Financial Literacy variable, all indicators exhibit values above 0.70, ranging from 0.708 to 0.762, indicating a satisfactory level of convergent validity. Meanwhile, the indicators of the Investor Trust variable show values between 0.663 and 0.783; although some indicators present relatively lower values, they remain within an acceptable range and adequately reflect the construct. The Stock Investment Decisions variable demonstrates relatively high outer loading values, ranging from 0.704 to 0.873, indicating that its indicators have strong explanatory power in representing the latent construct. Therefore, all indicators in this study are considered to have met the criteria for convergent validity and are suitable for inclusion in further analysis. The evaluation of discriminant validity in this study was conducted through cross-loading analysis, which aims to ensure that each indicator is more strongly associated with its corresponding latent construct than with other constructs. This approach is essential in SEM-PLS to assess the extent to which an indicator uniquely represents its intended variable without overlapping with other constructs. Conceptually, an indicator is considered to meet discriminant validity when its loading on the original construct is higher than its loadings on other constructs within the model.

Table 3. Cross Loading

	Bitcoin Risk Perception	Financial Literacy	Investor Trust	Stock Investment Decisions
BRP1	0.682	0.489	0.450	0.347
BRP2	0.740	0.424	0.434	0.348
BRP3	0.733	0.486	0.525	0.464
BRP4	0.764	0.558	0.577	0.662
FL1	0.567	0.729	0.583	0.468
FL2	0.441	0.708	0.418	0.444
FL3	0.437	0.739	0.420	0.392
FL4	0.525	0.762	0.475	0.451
IT1	0.537	0.458	0.663	0.426
IT2	0.508	0.503	0.783	0.444
IT3	0.493	0.457	0.719	0.459
IT4	0.415	0.434	0.678	0.455
SID1	0.594	0.472	0.467	0.704
SID2	0.446	0.492	0.484	0.873
SID3	0.439	0.495	0.482	0.869
SID4	0.595	0.481	0.583	0.798

Source: processed data, SEM-PLS3 2026

Based on the cross-loading analysis, it can be observed that all indicators for each variable exhibit the highest loading values on their respective constructs. The indicators of the Bitcoin Risk Perception variable (BRP1-BRP4) show the highest values on their own construct compared to Financial Literacy, Investor Trust, and Stock Investment Decisions, although there is a tendency of moderate association with other variables, particularly for BRP4. A similar pattern is found in the Financial Literacy variable (FL1-FL4), where all indicators demonstrate dominant loadings on their respective construct, indicating a clear distinction among constructs. For the Investor Trust variable (IT1-IT4), the loading values are also consistently higher on their own construct compared to others, although some values are relatively close, they do not exceed the primary loadings. Meanwhile, the Stock Investment Decisions variable (SID1-SID4) shows very strong loading values on its own construct, particularly for SID2 and SID3, further reinforcing the distinctiveness of the construct. Overall, these results indicate that there are no serious issues related to discriminant validity, and each construct in the model can be considered well-defined and empirically distinguishable from one another.

The assessment of instrument quality in this study was conducted through the evaluation of reliability and construct validity using several key indicators, namely Cronbach's Alpha, rho_A, Composite Reliability, and Average Variance Extracted (AVE). These measures were applied complementarily to ensure that each latent construct is not only internally consistent but also capable of explaining the variance of its associated indicators. In general, reliability is considered adequate when Cronbach's Alpha, rho_A, and Composite Reliability exceed the threshold of 0.70, while convergent validity is deemed satisfactory when the AVE value is greater than 0.50.

Table 5. Reliability and Validity Results

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Bitcoin Risk Perception	0.713	0.722	0.821	0.534
Financial Literacy	0.717	0.719	0.824	0.540
Investor Trust	0.773	0.774	0.804	0.507
Stock Investment Decisions	0.827	0.826	0.886	0.662

Source: processed data, SEM-PLS3 2026

Based on the results obtained, all variables in this study demonstrate a satisfactory level of reliability. The Bitcoin Risk Perception variable has a Cronbach's Alpha value of 0.713, rho_A of 0.722, and Composite Reliability of 0.821, indicating adequate internal consistency. A similar pattern is observed in the Financial Literacy variable, with respective values of 0.717, 0.719, and 0.824, confirming that its indicators consistently measure the construct. The Investor Trust variable exhibits relatively higher reliability values for Cronbach's Alpha and rho_A, at 0.773 and 0.774, although its Composite Reliability is slightly lower compared to other variables, it still exceeds the required threshold. Meanwhile, the Stock Investment Decisions variable shows the highest level of reliability, with a Cronbach's Alpha of 0.827 and Composite Reliability of 0.886, reflecting very strong internal consistency.

In terms of convergent validity, all variables have AVE values above 0.50, ranging from 0.507 to 0.662, indicating that each construct explains more than 50% of the variance of its indicators. Therefore, it can be concluded that all constructs in this research model meet the criteria for reliability and convergent validity, making them suitable for further analysis.

The coefficient of determination (R Square) in SEM-PLS analysis is used to assess the ability of independent variables to explain the variation in dependent variables. This value represents the proportion of variance in endogenous constructs that can be explained by exogenous constructs in the research model. In addition, the Adjusted R Square provides a more accurate estimate as it accounts for the number of predictor variables included, and is therefore often used as a reference to evaluate model stability. In general, R Square values of 0.25 are considered weak, 0.50 moderate, and 0.75 strong, and thus the interpretation of results should take these ranges into account.

Table 6. R-Square

	R Square	R Square Adjusted
Financial Literacy	0.458	0.453
Investor Trust	0.475	0.471
Stock Investment Decisions	0.502	0.489

Source: processed data, SEM-PLS3 2026

Based on the results obtained, the Financial Literacy variable yielded an R Square value of 0.458 and an Adjusted R Square value of 0.453, indicating that approximately 45.8% of the variance in Financial Literacy can be explained by the independent variables included in the model, while the remaining proportion is influenced by other factors beyond the scope of this study. This value falls within the moderate category, suggesting that the model possesses a reasonably good explanatory capability. Furthermore, the Investor Trust variable produced an R Square value of 0.475 and an Adjusted R Square value of 0.471, implying that approximately 47.5% of its variance can be accounted for by the exogenous constructs, reflecting a level of explanatory power relatively comparable to the previous variable. Meanwhile, the Stock Investment Decisions variable demonstrated an R Square value of 0.502 and an Adjusted R Square value of 0.489, indicating that more than 50% of the variation in stock investment decisions can be explained by the variables incorporated in the model. This result suggests a model strength approaching the moderate-to-strong category. Overall, these findings indicate that the research model possesses an adequate level of explanatory power, although there remains room for additional variables outside the model to further enhance its predictive capability in a more comprehensive manner.

Hypothesis testing in this study was conducted using the bootstrapping approach within the SEM-PLS model to assess the significance of the relationships among latent variables. The evaluation parameters included the original sample values (path coefficients), t-statistics, and p-values. The path coefficients indicate the direction and magnitude of the relationships between variables, while the t-statistics and p-values are used to determine the significance level of those relationships. In general, a relationship is considered significant when the t-statistics value exceeds 1.96 and the p-values are lower than 0.05 at the 5% significance level.

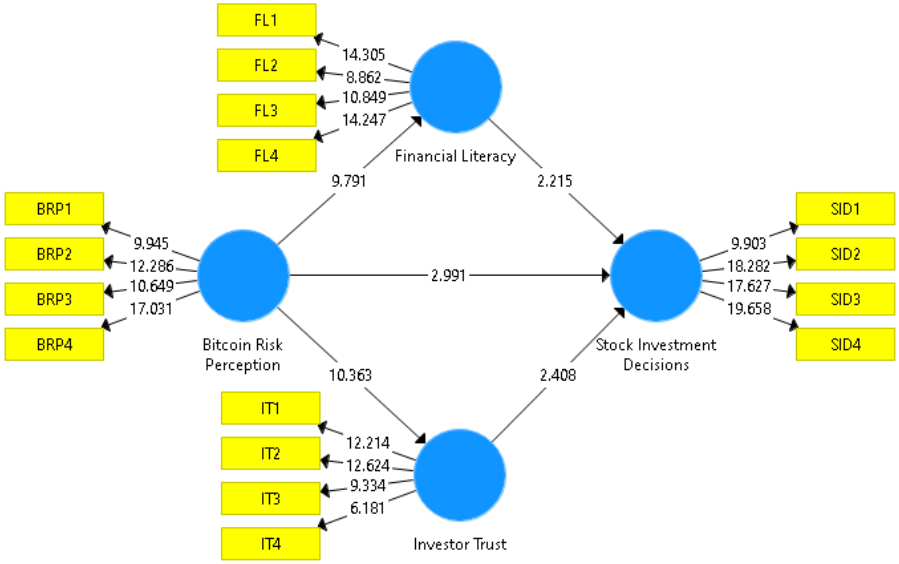

Figure 1. Bootstrapping

Table 7. Path Coeffients

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Bitcoin Risk Perception -> Financial Literacy	0.677	0.675	0.069	9.791	0.000
Bitcoin Risk Perception -> Investor Trust	0.689	0.688	0.067	10.363	0.000
Bitcoin Risk Perception -> Stock Investment Decisions	0.324	0.321	0.108	2.991	0.003
Financial Literacy -> Stock Investment Decisions	0.204	0.207	0.092	2.215	0.027
Investor Trust -> Stock Investment Decisions	0.271	0.267	0.112	2.408	0.016

Source: processed data, SEM-PLS3 2026

Based on the test results, the Bitcoin Risk Perception variable is found to have a positive and significant effect on Financial Literacy, with a coefficient of 0.677, a t-statistic of 9.791, and a p-value of 0.000. This indicates that higher levels of risk perception toward Bitcoin are associated with increased levels of individual financial literacy. A similar effect is observed in the relationship between Bitcoin Risk Perception and Investor Trust, with a coefficient of 0.689, a t-statistic of 10.363, and a p-value of 0.000, suggesting that well-developed risk perception can strengthen investor trust.

Moreover, Bitcoin Risk Perception also has a positive and significant effect on Stock Investment Decisions, with a coefficient of 0.324 and a p-value of 0.003, although the magnitude of this effect is relatively lower compared to the previous relationships. Furthermore, the Financial Literacy variable is shown to have a positive and significant effect on Stock Investment Decisions, with a coefficient of 0.204 and a p-value of 0.027, indicating that higher financial literacy contributes to more rational investment decision-making. Similarly, Investor Trust has a positive and significant effect on Stock Investment Decisions, with a coefficient of 0.271 and a p-value of 0.016, demonstrating that the level of investor trust plays an important role in determining stock investment decisions. Overall, all relationships among variables in this research model are statistically significant, indicating that the proposed hypotheses are supported and that the model has strong empirical backing.

The analysis of indirect effects in this study aims to examine the mediating role of variables in linking independent and dependent variables. This analysis was conducted using the bootstrapping method within the SEM-PLS framework by evaluating path coefficients, t-statistics, and p-values. A mediating effect is considered significant when the t-statistic exceeds 1.96 and the p-value is below the 0.05 significance level. Through this approach, it can be identified whether the intervening variables provide a meaningful contribution in strengthening or explaining the causal relationships within the research model.

Table 8. Indirect Effect

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Bitcoin Risk Perception -> Financial Literacy -> Stock Investment Decisions	0.138	0.140	0.066	2.094	0.037
Bitcoin Risk Perception -> Investor Trust -> Stock Investment Decisions	0.187	0.185	0.083	2.241	0.025

Source: processed data, SEM-PLS3 2026

The test results indicate that Financial Literacy serves as a significant mediator in the relationship between Bitcoin Risk Perception and Stock Investment Decisions, with a coefficient value of 0.138, a t-statistic of 2.094, and a p-value of 0.037. This finding suggests that the perception of Bitcoin risk not only has a direct effect on stock investment decisions but also an indirect effect through the enhancement of individual financial literacy. In other words, the better an individual's understanding of financial aspects, the stronger the influence of risk perception on investment decisions. In addition, Investor Trust is also found to act as a significant mediator in the same relationship, with a coefficient of 0.187, a t-statistic of 2.241, and a p-value of 0.025. This result indicates that the level of investor trust constitutes an important pathway through which risk perception is translated into concrete investment decisions. Overall, both mediating variables are shown to have significant contributions, leading to the conclusion that the research model not only demonstrates direct effects but also indirect effects that enrich the understanding of the mechanisms underlying the relationships among variables.

3.2. Discussion

3.2.1. The Effect of Bitcoin Risk Perception on Financial Literacy

The results indicate that Bitcoin risk perception has a positive and significant effect on financial literacy. This finding is consistent with the proposed hypothesis, suggesting that the higher an individual's awareness of cryptocurrency risk, the greater the motivation to enhance financial understanding. In this context, risk does not merely function as a barrier but also as a trigger for adaptive learning. Several recent studies support this finding. Exposure to risk within the digital financial ecosystem has been shown to encourage the improvement of financial literacy as a response to market complexity (Morgan et al., 2022; Lyons & Kass-Hanna, 2021). Furthermore, financial literacy evolves alongside the increasing need for individuals to understand high-risk instruments such as cryptocurrencies (OECD, 2022; Bongini et al., 2021). Other studies also emphasize that understanding risk is an integral component of enhancing financial literacy in the digital era (Koomson et al., 2023). The interpretation of these results suggests that individuals with higher risk perception tend to be more proactive in seeking financial information. This reinforces the role of financial literacy as an adaptive mechanism in dealing with uncertainty. The practical implication highlights the importance of risk-based financial education in improving public financial literacy.

3.2.2. The Effect of Bitcoin Risk Perception on Investor Trust

The findings show that Bitcoin risk perception has a positive and significant effect on investor trust. This supports the research hypothesis and provides the perspective that risk does not always negatively affect trust. Previous studies indicate that investor trust in the context of digital finance can be developed through an understanding of existing risks (Sadiq et al., 2021; Kim et al., 2022). In addition, risk transparency has been found to enhance system credibility and strengthen investor trust (Ali et al., 2022; Hasan et al., 2023). In the context of fintech and cryptocurrencies, trust is often cognitive and information-based rather than purely emotional (Shahzad et al., 2022). These findings suggest that investors who possess a deeper understanding of risk tend to have more stable and rational levels of trust. This study contributes by reinforcing the notion that trust can be built through risk awareness rather than solely through perceptions of security.

3.2.3. The Effect of Bitcoin Risk Perception on Stock Investment Decisions

The results indicate that Bitcoin risk perception has a positive and significant effect on stock investment decisions. This finding supports the hypothesis and suggests the existence of cross-instrument investment relationships. Previous studies have shown that risk perception plays a crucial role in shaping investment decisions and diversification strategies (Nguyen et al., 2022; Vo & Bui, 2022). Moreover, investors facing high risk in one asset tend to shift their investments to more stable alternatives (Phan et al., 2022; Trabelsi, 2021). Other studies have also identified spillover effects between cryptocurrency and stock markets (Corbet et al., 2021). These findings imply that Bitcoin risk perception encourages investors to make more rational

decisions in stock investments. This study contributes by expanding the understanding of cross-market relationships in investment behavior.

3.2.4. The Effect of Financial Literacy on Stock Investment Decisions

The findings show that financial literacy has a positive and significant effect on stock investment decisions. This supports the hypothesis and reinforces the role of literacy as a key determinant in investment decision-making. Several recent studies indicate that individuals with higher financial literacy tend to make more rational and informed investment decisions (Bongini et al., 2021; Morgan & Long, 2020/updated 2022). In addition, financial literacy enhances individuals' ability to understand risk and return (Koomson et al., 2023; OECD, 2022). Other studies also demonstrate that financial literacy significantly influences stock market participation (Ahmad et al., 2022). The interpretation of these findings suggests that financial literacy helps investors reduce bias and improve the quality of investment decisions. This study contributes by strengthening empirical evidence within the context of modern investment behavior.

3.2.5. The Effect of Investor Trust on Stock Investment Decisions

The results indicate that investor trust has a positive and significant effect on stock investment decisions. This finding supports the hypothesis and confirms that trust is a critical factor in investment behavior. Previous research has shown that trust significantly influences both investment participation and decision-making (Raut et al., 2021; Ali et al., 2022). Additionally, trust can reduce perceived uncertainty and enhance confidence in decision-making (Hasan et al., 2023; Shahzad et al., 2022). In modern financial markets, trust is also associated with transparency and the credibility of financial systems (Nguyen et al., 2022). These findings suggest that investors with higher levels of trust tend to be more active and confident in making investment decisions. This study contributes by strengthening the integration between trust and investment behavior.

3.2.6. The Mediating Role of Financial Literacy in the Effect of Bitcoin Risk Perception on Stock Investment Decisions

The test results indicate that the indirect effect of Bitcoin Risk Perception on Stock Investment Decisions through Financial Literacy has a coefficient of 0.138, with a t-statistic of 2.094 (>1.96) and a p-value of 0.037 (<0.05). Thus, this mediating effect is statistically significant, supporting the proposed hypothesis. This finding indicates that Financial Literacy serves as an important mechanism linking Bitcoin risk perception to stock investment decisions. In other words, risk perception influences investment decisions not only directly but also indirectly through the enhancement of individuals' cognitive capacity to understand financial information. These results are consistent with previous studies suggesting that financial literacy acts as a mediator between psychological factors and investment decisions (Koomson et al., 2023; Morgan et al., 2022). In the context of digital finance, individuals with higher risk awareness tend to improve their financial literacy, which ultimately affects the quality of their investment decisions (Lyons & Kass-Hanna, 2021; Bongini et al., 2021; OECD, 2022). Interpretively, this suggests that investors who recognize Bitcoin-related risks are more likely to enhance their financial understanding before making investment decisions in other instruments such as stocks. Therefore, financial literacy functions as a "cognitive filter" that transforms risk perception into more rational investment decisions. From a theoretical perspective, this finding strengthens the integration between behavioral finance and financial literacy theory, where financial literacy serves not only as an independent variable but also as a crucial intervening variable. The practical implication emphasizes the importance of financial education programs that focus on risk understanding as a foundation for investment decision-making.

3.2.7. The Mediating Role of Investor Trust in the Effect of Bitcoin Risk Perception on Stock Investment Decisions

The results show that the indirect effect of Bitcoin Risk Perception on Stock Investment Decisions through Investor Trust has a coefficient of 0.187, with a t-statistic of 2.241 (>1.96) and a p-value of 0.025 (<0.05). Therefore, this mediating effect is also significant, and the research hypothesis is supported. This finding indicates that Investor Trust plays an important role in linking Bitcoin risk perception to stock investment decisions. In this case, high risk perception does not directly reduce investment decisions but instead fosters more rational investor trust, which subsequently influences decision-making. Previous studies support this finding, showing that trust serves as an important mediator in the relationship between risk perception and financial behavior (Sadiq et al., 2021; Shahzad et al., 2022). Furthermore, transparency and understanding of risk contribute to the development of investor trust (Ali et al., 2022; Hasan et al., 2023; Nguyen et al., 2022). The interpretation of these results suggests that investors who understand Bitcoin-related risks tend to develop knowledge-based (cognitive) trust, which increases their confidence in making stock investment decisions. In other words, trust functions as a psychological mechanism that transforms risk perception into investment action. From a theoretical perspective, this finding reinforces the role of trust within the behavioral finance framework, particularly as a mediating variable linking perception and

decision-making. The practical implication highlights the importance of information transparency and the credibility of investment systems in building investor trust.

4. CONCLUSION

Based on the analysis conducted, this study demonstrates that Bitcoin Risk Perception has a positive and significant effect on Financial Literacy, Investor Trust, and Stock Investment Decisions. This indicates that higher levels of risk perception toward Bitcoin encourage individuals to enhance their financial understanding, develop more rational trust, and make more measured investment decisions. In addition, Financial Literacy and Investor Trust are also found to have significant effects on Stock Investment Decisions, confirming that cognitive and psychological aspects play an important role in investment behavior. Furthermore, the mediation analysis reveals that Financial Literacy and Investor Trust act as partial intervening variables in the relationship between Bitcoin Risk Perception and Stock Investment Decisions. This implies that the effect of risk perception occurs not only directly but also indirectly through improvements in financial literacy and the development of investor trust. Overall, this study contributes by integrating risk, literacy, and trust within a single model of investment behavior, particularly in the context of the interaction between cryptocurrency assets and stock markets.

The discussion section has linked the mediating roles of financial literacy and investor trust with recent literature, thereby strengthening the main arguments of the study. Nevertheless, this research still has several limitations that should be acknowledged. One important limitation relates to the use of cross-sectional data, which only captures respondent perceptions and behaviors within a single period of observation. As a result, the study is limited in its ability to identify dynamic changes in investor risk perception over time, particularly during periods of extreme volatility or sudden cryptocurrency market crashes. In highly fluctuating financial environments such as the cryptocurrency market, investor attitudes, trust, and decision-making processes may change rapidly in response to market conditions. Therefore, the findings of this study should be interpreted within the context of the specific time frame in which the data were collected. Future studies are encouraged to adopt longitudinal approaches in order to provide a more comprehensive understanding of the evolving nature of investor behavior and risk perception in digital financial markets. Future research is recommended to develop a more comprehensive model by incorporating additional variables that may influence investment decisions, such as behavioral biases, investment experience, macroeconomic conditions, and regulatory factors. Moreover, the use of longitudinal research methods is highly encouraged to capture the dynamic changes in investor behavior over time, especially in response to the high volatility of cryptocurrency markets. In addition, the measurement of variables such as Financial Literacy and Investor Trust can be further refined by distinguishing between cognitive and behavioral dimensions, as well as between emotional and rational forms of trust. Future studies may also broaden the scope of research by involving diverse groups of investors, including both novice and professional investors, in order to enhance the generalizability of the findings. Accordingly, future research is expected to provide a more in-depth and comprehensive understanding of investment behavior in the era of digital finance.

REFERENCES

Ahmad, M., Akhtar, M. N., & Usman, M. (2022). Financial literacy and stock market participation: Evidence from emerging markets. Journal of Economic Studies, 49(5), 1012–1028.

Ali, M., Khan, S., & Ahmed, Z. (2022). Risk transparency and investor trust in digital financial systems. Journal of Financial Innovation, 8(3), 45–60.

Baker, H. K., & Ricciardi, V. (2022). Understanding behavioral aspects of financial planning and investing. Journal of Behavioral Finance, 23(1), 1–7. https://doi.org/10.1080/15427560.2022.2027250

Bongini, P., Trivellato, P., & Zenga, M. (2021). Financial literacy: An overview of the literature. Journal of Risk and Financial Management, 14(6), 1–15. https://doi.org/10.3390/jrfm14060245

Corbet, S., Hou, Y., Hu, Y., Oxley, L., & Xu, D. (2021). Cryptocurrency liquidity and volatility interrelationships. Finance Research Letters, 40, 101–111. https://doi.org/10.1016/j.frl.2020.101566

Corbet, S., Larkin, C., & Lucey, B. (2022). The contagion effects of cryptocurrency markets. Research in International Business and Finance, 60, 101–112. https://doi.org/10.1016/j.ribaf.2022.101579

Hasan, R., Hossain, M., & Rahman, M. (2023). Investor trust and financial decision-making in uncertain markets. International Journal of Finance & Economics, 28(2), 1456–1472.

Kim, J., Park, J., & Lee, H. (2022). Trust formation in fintech services: The role of perceived risk and transparency. Electronic Commerce Research, 22(4), 789–807.

Koomson, I., Villano, R. A., & Hadley, D. (2023). Financial literacy and its role in household financial decision-making. International Journal of Consumer Studies, 47(1), 1–15. https://doi.org/10.1111/ijcs.12812

Lyons, A. C., & Kass-Hanna, J. (2021). Financial literacy and fintech adoption in emerging economies. Journal of International Development, 33(7), 1325–1343. https://doi.org/10.1002/jid.3568

Morgan, P. J., & Long, T. Q. (2020). Financial literacy, financial inclusion, and savings behavior in emerging markets. ADB Institute Working Paper Series, 1–25.

Morgan, P. J., Huang, B., & Trinh, L. Q. (2022). The role of financial literacy in financial markets. Asian Development Review, 39(1), 1–20.

Nguyen, T. T., & Pham, H. T. (2023). Investor trust and investment decision-making in emerging markets. Journal of Asian Finance, Economics and Business, 10(2), 123–132.

Nguyen, T. T., Vo, X. V., & Bui, T. N. (2022). Risk perception and investment decisions: Evidence from stock markets. Heliyon, 8(5), e09467. https://doi.org/10.1016/j.heliyon.2022.e09467

OECD. (2022). OECD/INFE international survey of adult financial literacy. OECD Publishing. https://doi.org/10.1787/financial_literacy-2022-en

Phan, D. H. B., Sharma, S. S., & Narayan, P. K. (2022). Cryptocurrency and stock market dynamics. Journal of International Financial Markets, Institutions and Money, 76, 101–118. https://doi.org/10.1016/j.intfin.2021.101414

Raut, R. K., Das, N., & Kumar, R. (2021). Investor trust and stock market participation. Journal of Behavioral and Experimental Finance, 30, 100–112. https://doi.org/10.1016/j.jbef.2021.100488

Sadiq, M., Khan, M. A., & Ali, S. (2021). The role of trust in financial decision-making under uncertainty. Journal of Risk and Financial Management, 14(8), 1–14. https://doi.org/10.3390/jrfm14080345

Shahzad, S. J. H., Bouri, E., & Roubaud, D. (2022). The role of trust and risk in financial markets. Finance Research Letters, 46, 102–118. https://doi.org/10.1016/j.frl.2021.102345

Trabelsi, N. (2021). Are cryptocurrencies safe havens for stock markets? Finance Research Letters, 38, 101–112. https://doi.org/10.1016/j.frl.2020

Umar, Z., Gubareva, M., & Teplova, T. (2021). The impact of risk perception on investment decisions. Journal of Behavioral Finance, 22(3), 1–12. https://doi.org/10.1080/15427560.2020.1862573

Vo, X. V., & Bui, T. N. (2022). Risk perception and portfolio diversification strategies. Economic Modelling, 108, 105–120. https://doi.org/10.1016/j.econmod.2021.105738