FinTech-driven Investment Platforms and Individual Investment Performance: Mediation by Investment Decision-making Quality and Moderation by Risk Tolerance

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The rapid growth of FinTech-driven investment platforms has reshaped how individuals engage with financial markets, offering greater accessibility and efficiency but also raising concerns about decision-making quality and investor performance. Despite increasing adoption, empirical evidence on the behavioral and contextual factors influencing investment outcomes in FinTech environments remains limited. The present study aims to examine the relationship between FinTech-driven investment platforms and individual investment performance, with investment decision-making quality as a mediating mechanism and risk tolerance as a moderating factor. A quantitative, cross-sectional design was employed, and data were collected from individual investors actively using FinTech-based investment applications. A structured questionnaire was administered, and responses were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The findings reveal that FinTech-driven platforms positively influence investment performance, and this relationship is partially mediated by the quality of investment decision-making. Furthermore, risk tolerance significantly moderates the strength of the association between FinTech adoption and investment performance, suggesting that higher tolerance enhances the benefits of technology-enabled investing. These results contribute to the growing literature on financial technology and behavioral finance by highlighting how digital platforms, individual traits, and decision-making processes interact to shape investment outcomes.
Keywords: FinTech-driven Investment Platforms, Investment Performance, Investment Decision-making and Risk Tolerance

Introduction

In recent years, access to financial markets has transformed dramatically. Growing digital connectivity and innovation in financial services have spurred a broader conversation about how people manage and grow their personal wealth. No longer reserved for the affluent, investing is now within reach for many through mobile apps, streamlined platforms, and automated tools. This shift has sparked scholarly and policy interest in understanding how digital tools reshape investment behaviors and outcomes. Debates now revolve around equity who benefits most from these innovations and responsibility can users make wise choices. It's this evolving landscape of democratized investing, catalyzed by technological forces, that sets the stage for examining how digital platforms influence decision-making and performance.

Recent empirical work shows that FinTech tools encourage individuals to engage more actively in capital markets, lowering barriers to entry and facilitating investment choices (Priyadarshi et al., 2024). Users with higher financial awareness, reflected in stronger risk perception and financial efficacy, tend to adopt FinTech services more and make more informed investment decisions (Setiawan et al., 2025). Yet, behavioral features like gamification can push users to invest beyond their comfort zone sometimes diverging from their actual risk tolerance (Freibauer et al., 2024). Financial literacy remains an important moderating factor: investors often align their portfolio choices with their understanding of risk, though many struggle with identifying risk-mitigation strategies (FINRA, 2024). These findings suggest FinTech's influence is nuanced: while it expands access and potentially improves engagement, it may also distort how individuals perceive and act on risk.

Globally, the rise in personal investing has raised concerns about financial stability, investor protection, and inequality. Retail investors' exposure to market risk surged by around 15 percent from 2019 to 2021, remaining elevated through 2023 (JPMorgan Chase Institute, 2024). In many markets, younger investors are embracing complex, high-risk products like options and cryptocurrencies often through self-directed platforms, raising alarms about speculative behavior and potential losses (Barron's, 2024). FinTech offers potential solutions: it can democratize access, support underserved populations, and bolster inclusion in areas where traditional banking falls short (Hong et al., 2020). Yet without sufficient financial education or appropriate design, these same platforms may expose individuals to harm, especially among less experienced users.

While we understand that FinTech affects investor behavior and market exposure, several gaps remain. First, much of the literature explores how FinTech changes behavior in general or looks at broad trends, but it doesn't clearly account for how individual differences like risk tolerance shape outcomes. We know that gamification can override self-reported risk preferences (Freibauer et al., 2024), and that investors with higher financial efficacy engage more with FinTech (Setiawan et al., 2025), yet we don't know how these differences interact to influence actual investment performance. Second, most studies examine behavior or perception, but not investment outcomes per se. We still lack comprehensive insight into how the interplay between FinTech exposure and individual risk attitudes translates into returns or portfolio quality. Third, existing research often comes from single contexts Indonesia, Nepal, the U.S. but does not integrate these findings into a cohesive framework. In short, there's a pressing need to examine how FinTech tools interact with risk tolerance to affect investment decisions and performance. Such an understanding would help tailor platforms toward better outcomes and guide regulatory and educational frameworks.

The correlation of FinTech participation, risk tolerance, decision-making quality, and investment outcome would complement the behavioral finance and the FinTech literature by filling the gap between the technology adoption and performance assessment. A more conscious approach can help to design platforms that will deliver tools that will not only fulfil capabilities of users but also support their rational decision-making. The policymakers and educators are in need of evidence where they can help make the guidelines that can be employed in the investor protection area without the restrictions in the access of it. It concurs with sustainable development goals in

unanimous direction, especially SDG 8 (decent work and economic growth) and SDG 10 (reduced inequalities), as it helps to provide the opportunities to explore equitable and responsible financial inclusion. In the newer markets and underserved markets, visibility can be a compelling force.

This study adds value by explicitly modeling how risk tolerance interacts with FinTech-driven investment platforms to affect the quality of investment decisions and individual outcomes. Attention to the mediator role of decision-making quality provides an additional level of insight not adequately discussed in previous literature. It is a distinct strategy; it goes beyond proxy behavior or exposure metrics to model the full step-by-step process of platform use to performance. Informed by the Prospect Theory, the comparative study will help to understand how the responses to FinTech cues and affordances can be moderated by the psychological risk attitudes. In theory, it constitutes an extension to behavioral finance in that it incorporates decision quality as realization of technological context to outcomes. In practice, it may provide platforms and policymakers with the direction of interventions towards aligning the inherent user preferences with more productive investment trajectories leading to financial wellbeing on a sustainable basis.

Theoretical Foundation

Originating in behavioral economics, the theory in focus emerged in 1979 from the pioneering work of Daniel Kahneman and Amos Tversky. The prospect theory posed a challenge to the classical belief of the rational decision-making process under risk as taught by the expected utility theory (Kahneman & Tversky, 1979). The main "engine behind the theory" is the principle of loss aversion that people are more sensitive to losses than equivalent gains, and reference dependence the fact people determine the strength of outcomes or effects with respect to a personal reference level rather than objectively. Prospect theory has over the years been advanced to be able to function better as a descriptive theory and a prediction tool. In 1992, Kahneman and Tversky added cumulative probability weighting (Kahneman and Tversky 1992) by generating cumulative prospect theory (CPT). This modification made it easier to deal with complex and continuous outcomes at a more consistent level, which smoked out earlier theoretical weakness in terms of not matching the stochastic dominance. Other more recent theoretical advances are concerned with the empirical implications of CPT in a range of contexts, including investor interest in socially-mediated platforms (Reichenbach, 2024) and risk management styles of behaviour (Addo, 2025). Prospect theory is relevant to this research because it helps in explaining how individuals make judgements in areas of potential gains and/or losses under uncertain environments. In a context where digital technologies provide dynamic framing and feedback characteristic of FinTech-driven networks prospect theory provides a framework to explain why an investor may feel more shocked by a loss than a similar profit and how their own internal reference point stipulates their decision-making style and future performance.

Reichenbach (2024) demonstrates how cumulative prospect theory helps explain investor attention allocation how framing and reference points shape engagement with financial news and signals. In a similar fashion, Addo (2025) uses the prospect theory to analyze the topic of behavioral risk management sharing that this awareness of prospect-theoretic behavioral biases can inform a more detailed design of strategy. The intellectual background is prospect theory which gives the theory model a coherence. It logically supports the analysis of the interaction between digital investment environments and the psychological predisposition of investors especially to losses and the influence this has on the quality of decisions and outcomes. By doing so it roots the analysis within a firmly established, maturing behavioral model that synchronizes contextual technology with human predisposition and performance.

Hypotheses development:

In recent years, digital innovation in finance has significantly reshaped how individuals' access, evaluate, and engage in investment activities. Retail investors have access to lower-entry barriers and increased tools previously monopolized by institutional actors through FinTech platforms, including algorithmic trading, robo-advisory and real-time analytics. Empirical evidence indicates that these platforms help to increase accessibility, transparency, and the expedited nature of the transactions, which increases the level of participation in the capital markets (Priyadarshi et al., 2024). Additionally, it is also found that those investing in technology-driven investment platforms are likely to be in a more proactive portfolio management approach than the traditional investors, and it has the potential to gain better returns when well-paired with any informed investment methods (Setiawan et al., 2025). Simultaneously, the behavioral financial schools of thought warn that the excessive use of simplified digital signals may initiate cognitive biases, particularly in the unstable outcome's cases, as stressed in the prospect theory regarding risk assessment and framing (Reichenbach, 2024). The differing perceptions of the accessibility value and the consequences to the performance reflect the necessity to pay attention not only to the positive aspects of the FinTech-guided investing practice.

Prospect theory provides a compelling foundation for understanding this relationship, as it highlights how individuals' perceptions of gains and losses influence their financial decision-making under uncertainty. These cognitive processes can be magnified by FinTech platforms with their design affordances and real-time feedback provisions which lead to either more rationalized plans or the more risk-taking decisions. Whereas certain studies indicate that digital platforms are enhancing investor confidence and portfolio performance, other research is concerned about the potential of herding and knee-jerk habits of buying and selling (Addo, 2025). This ambivalence of the findings shows a research gap, especially as it relates to the performance effects of direct outcomes of FinTech-based investing. Filling this gap is critical to assessing the merits or demerits of the value addition technology creates on individuals in terms of financial well-being or vulnerability areas of behavioral extents. Therefore, it is hypothesized that FinTech-driven investment platforms positively influence individual investment performance.

H1: FinTech-driven investment platforms have a positive effect on individual investment performance.

Decision-making quality has long been recognized as a critical determinant of investment outcomes, particularly in environments characterized by uncertainty and risk. With the increasing adoption of digital platforms, individuals are provided with a wealth of financial information, analytical tools, and real-time feedback that can potentially strengthen the quality of their investment decisions. Recent studies indicate that improved decision-making quality acts as a crucial pathway linking technological tools to positive investment results (Liu et al., 2023). However, digital access alone does not guarantee effective outcomes rather the way individuals interpret and utilize information determines performance. From the perspective of prospect theory, decision-making is shaped not only by rational evaluation but also by psychological framing, especially regarding gains and losses (Reichenbach, 2024). FinTech platforms may enhance decision-making by structuring information in ways that reduce biases, yet they may also introduce new heuristics that influence investor judgment.

The literature suggests a growing recognition of decision-making quality as a mediating process in financial behavior, though evidence remains fragmented. Some scholars argue

that digital financial platforms strengthen investor knowledge and confidence, leading to better performance (Setiawan et al., 2025), while others highlight risks of cognitive overload and impulsivity when information is poorly processed (Addo, 2025). This duality highlights the necessity of examining whether the positive impact of FinTech on performance is realized through improved decision-making rather than being a direct outcome of platform use. In line with this reasoning, and consistent with the theoretical foundation that emphasizes perception and evaluation under uncertainty, it is posited that decision-making quality functions as the key mechanism linking digital investment practices to investment success. Therefore, it is hypothesized that investment decision-making quality mediates the relationship between FinTech-driven investment platforms and individual investment performance.

H2: Investment decision-making quality mediates the relationship between FinTech-driven investment platforms and individual investment performance.

Individual differences in psychological dispositions toward risk have been repeatedly shown to influence financial behavior and outcomes. Although the FinTech outlets open new products to a wider population and offer them high-tech applications in investment, the ability to enjoy its advantages could be restricted by the degree of risk that a person is willing to take. Recent at-tempts that looked into risk tolerance exemplify that risk tolerance can influence the way investors perceive threats and opportunities and how often it is accompanied by the readiness to adopt novel financial tools and technologies (Nguyen & Nguyen, 2023). On the other hand, low-risk tolerance buyers are not likely to fully utilize the functionalities of digital platforms or withhold themselves in higher-reward opportunities limiting their potential future return. This argument is well supported by the prospect theory which argues that perceptions of losses are more significant than that of gains and that each person will have his or her own boundaries of tolerating risks in making their investment decisions (Reichenbach, 2024). Recent studies have been increasingly pointing out to the interactive nature of risk tolerance in technological-based financial perspectives. Indicatively, Setiawan et al. (2025) indicate that investors who are confident and have a high-risk tolerance possess a better chance of utilizing the advantages of FinTech application compared to those who have low risk tolerance and may act conservatively regardless of the assistance provided by the technology. This implies that the capacity of FinTech platforms to improve performance will not be consistent across the board, but this potential will depend on the inclination risk-bearing by investors. In other words, structural barriers to participation are reduced because of FinTech but it is the individual psychological disposition that determines whether the individuals take advantage of these opportunities positively or not. Therefore, it is hypothesized that risk tolerance moderates the relationship between FinTech-driven investment platforms and individual investment performance.

H3: Risk tolerance moderates the relationship between FinTech-driven investment platforms and individual investment performance.
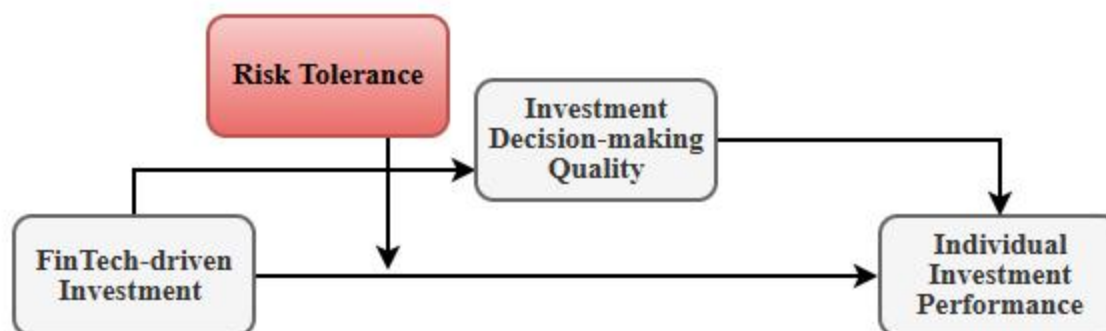
Figure 1: Research Model

Methodology

The present study employs a quantitative, cross-sectional research design, which is particularly appropriate for testing hypothesized relationships among constructs within a defined time frame. A cross-sectional design enables one to collect information on a rather large sample of respondents within a short period of time, which can be statistically analyzed to provide a credible picture of the patterns (Apuke, 2023). Quantitative tools fit well into the framework of the current study as they allow to test theoretically-informed hypotheses, to estimate structural relationships between latent constructs, and generalize the findings to a wider context. The target population of individual investors who actively use FinTech-based investment platforms. This group is of high relevance to investigate the research problem since they are directly exposed to technological tools that can have an impact on decision-making and performance outcomes and can be considered a contextually appropriate and suitable population. The sampling is also aimed at reaching the actual focus of the study; there is the need to understand how FinTech services influence investment behaviour based on the uncertainty and the risk value of circumstances. We will use purposive sampling strategy in the selection of the sample, which is suitable (Etikan and Bala 2023), it can be associated with identifying respondents that have what it takes to produce valuable information about the phenomenon we need to examine. In calculating the sample size, Item Response Theory (IRT) was applied to test the sufficiency of samples pertaining to the level of precision of the measurement. RT offers a more specific understanding of response patterns than classical test theory and both reliability and validity to measuring latent constructs, such as decision-making quality and risk tolerance (van der Linden, 2022).

Data collection will be carried out using a structured questionnaire composed of established and validated measurement instruments. All constructs will be assessed on the basis of items extracted and used in previous empirical reports, which guarantees reliability and adequate content validity. In particular, FinTech platform performance, investment performance, quality of decisions made, and risk appetite are operationalized as multi-items scales measured on a 7-point Likert scale with anchors that read strongly disagree to strongly agree. The choice of using validated instruments and the 7-point scaling measures shows the methodological soundness, whereas the latter improves sensitivity and decreases measurement error. The analysis of the data will be done using two tools, which will complement each other: SPSS and SmartPLS. PSS will be engaged in providing the descriptive statistics and initial analysis of the data, which will provide a clear portrait of the respondents and the dataset. Control variables will be included to control, to adjust the model (SmartPLS, especially appropriate in Structural Equation Modeling (SEM) studies characterized by complex relationships), and to test proposed paths and the mediation-moderation effects. The combination of these tools helps to maximize robustness and precision in the analysis resulting in certainty on the interpretation of findings (Hair et al., 2022).

All constructs are measured using established scales adapted from prior validated studies to ensure reliability and content validity. The use of FinTech driven investment platforms is measured by items adapted by Setiawan et al. (2025), which is considered the frequency of

the interaction of individuals with internet aids to make investment choices. The measures of investment performance are described as a multi-item scale consisting of subjective and objective outcomes of investment activities that are adapted proposed in Liu et al. (2023). The quality of decisions is measured using items that were taken or adapted by other researchers on the same subject matter on financial behavior and cognitive processing on investment matters that focus on rationality, information processing, and processing of judgement on uncertainty (Addo, 2025). The risk tolerance is determined with the help of the investor risk attitude scale that helps to determine the desire to take risks and make losses in order to get the profits which are adjusted to the modern realities of the FinTech industry (Nguyen & Nguyen, 2023). Measurement of each construct comprises a set of items on a seven-point Likert scale type, which is in the format of strongly disagree, strongly agree where there is extensive variation of responses, and sensitivity in recording the latent attitudes. The use of validated instruments in recent publications enhances methodological rigor in the study as the instruments are well adopted theoretically and reliable empirically also.

Data analysis:

Table 1: Factor Loadings

Variables	Items	FDI	IDM	IP	RT
FinTech-driven Investment	FDI1	0.884			
	FDI2	0.871			
	FDI3	0.849			
	FDI4	0.830			
	FDI5	0.861			
	FDI6	0.891			
	FDI7	0.809			
	FDI8	0.907			
Investment Decision-making Quality	IDM2		0.825		
	IDM3		0.775		
	IDM4		0.800		
	IDM5		0.864		
	IDM6		0.812		
	IDM7		0.818		
Investment Performance	IP1			0.866	
	IP2			0.907	
	IP3			0.869	
	IP4			0.909	
	IP5			0.848	
	IP6			0.860	
Risk Tolerance	RT1				0.819
	RT2				0.825
	RT3				0.821
	RT4				0.865
	RT5				0.856
	RT6				0.785

Factor loadings represent the strength of association between observed indicators and their underlying latent constructs, serving as a critical measure of reliability and construct validity within measurement models. Larger loadings have the meaning that an item represents a latent construct it is supposed to measure fairly well. According to recent methodological recommendations, in exploratory studies, it is possible to accept factor loadings at a level greater than 0.40, in confirmative studies it is desirable to apply factor loadings at the level of 0.70 and more in order to prove convergent validity (Hair et al., 2022). It is also evident in the higher loadings that are closer to or exceed 0.80, which further indicates that indicators and latent constructs fit together very well, indicating that the measurement model has been precise (Henseler, 2023). The comparisons made on the basis of the obtained loadings will not only tell whether the items are adequate but also become helpful in ensuring the conceptual soundness of the constructs. The findings of the measurement model show a well-functioning factor loading on all constructs. In the case of FinTech-based investment, the loading of items is between 0.809 and 0.907 with all items loading higher than the recommended 0.70 indicating that the eight indicators have a consistent and strong relationship with the construct. The decision-making quality of investment has loadings between 0.871 and 0.775, the measurement within the scale is again strong. Investment performance showed loadings ranged between 0.848 and 0.909, whereas the risk tolerance ranged between 0.785 and 0.865 that demonstrate strong construct validity. These findings support the notion that every indicator displayed has a valuable contribution, no item is below acceptable limits to its latent variable.

Table 2: Reliability analysis

Variables	Cronbach's alpha	(rho_c)	(AVE)
FinTech-driven Investment	0.951	0.959	0.745
Investment Decision-making	0.900	0.923	0.666
Investment Performance	0.940	0.952	0.769
Risk Tolerance	0.909	0.929	0.687

Reliability and validity are significant issues that need to be evaluated to build measurement models so that the research work in behavioral and social sciences can be done. Cronbach s Alpha, rho A, and Composite Reliability (rho C) can be seen as indexes of internal consistency reliability, which reflects the degree to which the items of an instrument measure the constructs consistently, whereas average variance extracted (AVE) reflects convergent validity in terms of the proportion of variance accounted by the underlying construct as opposed to error variance. Methodological recommendations indicate that Alpha, rho_A and rho_C values of 0.70 and above have been proposed as reflecting an acceptable reliability indicator, with AVE levels of greater than 0.50 as being evidence of sufficient convergent validity (Hair et al., 2022; Sarstedt et al., 2022). All four constructs pass all these thresholds, showing that the values of these constructs have high measurement quality.

Table 3: HTMT Ratio

Variables	FDI	IDM	IP	RT
FinTech-driven Investment				
Investment Decision-making	0.435			
Investment Performance	0.585	0.503		
Risk Tolerance	0.655	0.547	0.601	

The heterotrait–monotrait (HTMT) ratio evaluates discriminant validity by estimating the average correlations across constructs relative to within-construct correlations; lower HTMT values indicate that latent variables are empirically distinct in a structural equation model. Contemporary guidelines recommend stringent and liberal cutoffs of HTMT < 0.85 and HTMT < 0.90, respectively, as evidence of discriminant validity, with the stricter threshold preferred in confirmatory applications (Hair et al., 2022; Sarstedt et al., 2022). Against these criteria, all pairwise HTMT estimates fall comfortably below even the strict benchmark: FinTech-driven Investment with Investment Decision-making (0.435), Investment Performance with FinTech-driven Investment (0.585), Investment Performance with Investment Decision-making (0.503), and Risk Tolerance with each construct FinTech-driven Investment (0.655), Investment Decision-making (0.547), and Investment Performance (0.601). These values suggest that shared variance between constructs is meaningfully lower than their internal coherence, supporting conceptual distinctiveness and mitigating concerns about construct redundancy or multicollinearity. Substantively, the moderate associations (e.g., 0.585 and 0.655) are theoretically sensible in a behavioral finance context indicating related but separable domains while the lower coefficients (e.g., 0.435 and 0.503) further reinforce discriminant clarity.

Table 4: Model Fitness Values

	Saturated model	Estimated model
SRMR	0.060	0.082
d_ULS	1.261	2.350
d_G	0.780	0.808
Chi-square	1335.180	1349.809
NFI	0.817	0.815

The model fit indices provide evidence of acceptable model adequacy. The standardized root means square residual (SRMR) values for the saturated (0.060) and estimated model (0.082) are within the recommended threshold of 0.08, indicating a reasonable fit between the observed and predicted correlations (Hair et al., 2022). Similarly, the d_ULS and d_G values are relatively low, suggesting minimal discrepancy between empirical and model-implied matrices. Although the chi-square values are significant, this outcome is common in large-sample SEM and does not necessarily imply poor fit. The normed fit index (NFI) values of 0.817 and 0.815 further demonstrate moderate model fit.
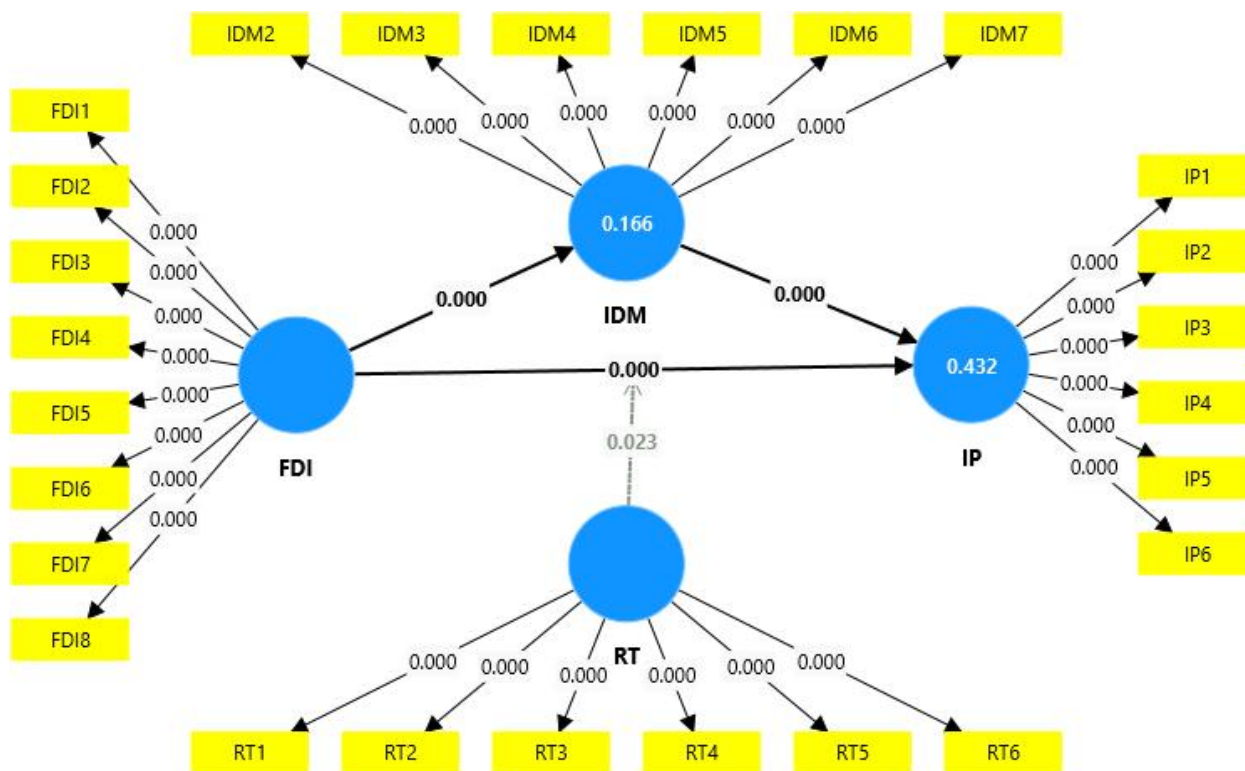
Figure 2: Structural Equation Modelling

Table 5: Results

Hypotheses	Original sample	Sample mean	Standard deviation	T statistics	P values
FinTech-driven Investment -> Investment Performance	0.332	0.331	0.058	5.704	0.000
FinTech-driven Investment -> Investment Decision-making -> Investment Performance	0.081	0.083	0.027	3.039	0.002
Risk Tolerance x FinTech-driven Investment -> Investment Performance	-0.101	-0.099	0.044	2.279	0.023

The hypotheses testing results provide strong evidence in support of the proposed relationships. The direct effect of FinTech-driven investment on investment performance is positive and significant (β = 0.332, t = 5.704, p < 0.001), confirming that greater engagement with FinTech platforms enhances individual investment outcomes. The mediation pathway through investment decision-making is also significant (β = 0.081, t = 3.039, p = 0.002), indicating that FinTech-driven investment contributes to improved performance by enhancing the quality of decision-making. Although the indirect effect is smaller in magnitude compared to the direct effect, its significance highlights the importance of decision-making as a partial mediator in explaining performance outcomes. Furthermore, the moderating role of risk tolerance in the relationship between FinTech-driven investment and investment performance is supported (β = -0.101, t = 2.279, p = 0.023). The negative coefficient suggests that higher risk tolerance weakens the positive influence of FinTech-driven platforms on performance, implying that investors with greater willingness to take risks may rely less on FinTech tools for achieving superior outcomes.

Discussion

The findings of this study provide clear evidence that FinTech-driven investment significantly enhances individual investment performance, thereby supporting the first hypothesis. This result aligns with the growing body of literature that emphasizes the transformative role of technology in improving investment processes and outcomes (Gomber et al., 2022). FinTech ventilates use automation, real-time analytics and inclusion to financial markets that collectively lead to better-informed decisions and increased returns. The regression model has found the positive and significant path coefficient, meaning that individuals using such platforms are more prepared to handle their portfolio, which makes sense since it was already stated that digital financial innovations better manage information asymmetry and increase efficiency in financial decision-making (Fuster et al., 2022). Given the environment of emerging markets where financial literacy and access to standard forms of investment advice might be low, the high level of contribution FinTech can demonstrate is evidence of the role such a tool can play in democratizing entry into investment schemes and creating inclusionary opportunities (Nguyen et al., 2022).

The second hypothesis, which posited a mediating role of investment decision-making quality, was also supported, indicating that the adoption of FinTech platforms not only directly influences performance but also improves the quality of decisions investors make. This observation falls in line with behavioral finance thinking and it implies that structured instruments and decision-support tools can moderate the effects of cognitive biases and influence the level of rationality in financial decisions in a positive manner (Kahneman & Tversky, 2019). This mediation effect, less than the direct effect, shows how processes of decision making had a key role in the influence of technology. Past empirical evidence has also demonstrated a similar pattern in which investors taking part in digital advisory tools or algorithm-based platforms experienced an improvement in the form of a more disciplined and data-driven approach to their investment strategies which led to improved investment outcomes (Sironi, 2021). This implicates a second reason that FinTech platforms are not merely transactional facilitators but that they educate individuals by enhancing the quality of decisions which is essential in maintaining long-term financial betterment.

The third hypothesis, which examined the moderating effect of risk tolerance, was also supported, although the direction of the relationship provides important nuance. The negative moderation suggests that investors with higher levels of risk tolerance experience a weaker positive relationship between FinTech-driven investment and performance. This finding resonates with Prospect Theory, which posits that individuals' risk preferences shape their evaluation of potential gains and losses (Tversky & Kahneman, 1992). Highly risk-tolerant investors may rely less on the structured guidance and risk-averse strategies embedded in FinTech platforms, preferring instead to pursue high-risk opportunities independently. This behavior may explain why the beneficial effects of FinTech are diminished for this group. Similar findings have been reported in recent studies, where investors with lower risk aversion benefited more from FinTech platforms, as they were more receptive to conservative recommendations and automated rebalancing features (Alalwan et al., 2022). Contextually, this outcome may reflect cultural or market-specific dynamics in which risk-tolerant investors prioritize autonomy and speculative strategies over technology-assisted discipline, thereby weakening the observed benefits of FinTech adoption.

Limitations and Future directions

Like all empirical studies, this research has several limitations that should be acknowledged. First, the cross-sectional design limits the ability to establish causality, as the relationships among FinTech-driven investment, investment decision-making, risk tolerance, and investment performance were observed at a single point in time. Longitudinal studies would provide a stronger basis for understanding causal dynamics over time. Second, the study relied on self-reported data, which may introduce common method bias despite statistical remedies applied to minimize such risks. Third, the sample

was restricted to a specific context, which may limit the generalizability of the findings to other regions or investment environments with different financial structures and regulatory frameworks. Fourth, the research scope was somewhat limited, since the research targeted principally decision-making quality and risk tolerance, with other aspects of importance, including investor psychology, market conditions, or institutional support being absent. These gaps have possibly limited the explanatory subject matter of the model. Future research may help to reduce the limitations by adopting longitudinal or experimental design in order to prove the causal mechanisms more rigorously. The sample also needs to be increased to represent different cultural, economic, and institutional environments and improve external validity. Further research should also consider other mediators like financial literacy or investor sentiment, or behavioral biases, in which the FinTech innovation could affect investment outcomes (Banna & Alam, 2022). Likewise, mediators like regulatory support, digital trust, environmental uncertainty, etc. could be presented to have a more complex picture of boundary conditions. A cross-frontal analysis focusing on the peculiarities of traditional and FinTech-based investment strategies could as well deliver important findings on the emerging frontiers in the sphere of digital finance. It is possible to further develop the model in these ways; future research can be as more theoretical and offer more practical suggestions to scholars and practitioners.

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