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Factors influencing the adoption of online investment platforms through a task-technology fit perspective: The case of Peru

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Abstract

The rapid growth of digital investing is reshaping how individuals access financial markets. However, adoption in Peru remains limited due to low financial inclusion, limited digital trust, and a lack of understanding of how users evaluate online investment platforms. This study examines the technological and behavioral factors that influence the adoption of these platforms in Peru. Drawing on the Task–Technology Fit model, the research examines how users’ investment task demands and platform technological capabilities shape perceived fit and intention to use these services. A total of 150 observations were collected through an online survey, and structural equation modelling was applied to test the proposed relationships. The results show that Technology Enablement is the strongest predictor of Perceived Fit, followed by Task Demands. Perceived Fit, in turn, strongly determines intention to use online investment platforms, confirming the relevance of task–technology alignment for adoption in emerging markets. The findings suggest that improving platform features that support investment tasks and communicating this value clearly to users can enhance adoption and contribute to broader financial participation and inclusion. Theoretical and managerial implications are discussed.

Keywords: Online brokers, financial inclusion, online investment platforms, task-technology fit, Peru

Introduction

Financial inclusion has become one of the most powerful tools for reducing inequality and fostering economic resilience in modern societies. This concept is broadly defined as the actions that ensure individuals and businesses have access to valuable and affordable financial products and services that meet their needs, such as payments, savings, credit, and insurance, delivered responsibly and sustainably (Demirgüç-Kunt et al., 2018). Financial inclusion is widely recognized as a key driver of poverty reduction and prosperity, as it enables individuals to manage their finances effectively, improve consumption, and build resilience to economic shocks. In addition, financial inclusion can evolve through different degrees of access, as explained in the following paragraph. Even though it is not necessary to follow a linear progression across these access levels, there are still some key steps to reach the highest access level.

At the most basic level, financial inclusion begins with the opening of savings accounts, which enable individuals to manage money safely. The next stage typically involves credit access, enabling households and businesses to smooth consumption and finance productive investments (Demirgüç-Kunt et al., 2018). A third stage, often overlooked in policy debates, is access to investment opportunities. Financial instruments such as mutual funds, equities, or alternative assets represent a higher dimension of financial

inclusion. By empowering individuals to build and manage assets actively, these investments might enhance financial autonomy while also supporting broader human development, enabling people to build the future, find opportunities, and improve their overall well-being in a sustainable way (Sarma & Pais, 2011).

While investment benefits are evident, Peru's current situation reflects a significant gap. According to Ramírez (2023), only 14% of Peruvians with some level of financial education invest in traditional instruments such as stocks or mutual funds, and only 6% of the adult population participates in the Lima Stock Exchange. This limited engagement contrasts sharply with the approximately 27% of the population that expresses interest in investing (Ramírez, 2023), revealing a wide gap between intention and real adoption. In rural and low-income urban areas, restricted internet access and low levels of financial literacy further constrain the ability to explore online investment options (CAF, 2022). Even among the educated middle class, unfamiliarity with digital investment platforms and concerns about transparency or platform reliability discourage participation (Ipsos Perú, 2023). The result of this context is a population that heavily relies on short-term financial mechanisms, with few opportunities to build wealth and resilience.

Tackling this gap could unlock transformative benefits for both individuals and society at large. Broader access to investments extends financial inclusion beyond the basics of payments and credit, empowering people not only to protect their income but also to actively grow it (Demirgüç-Kunt et al., 2018). By enabling households to build assets and diversify risks, investments strengthen long-term financial security and resilience, which in turn impact personal development (OECD, 2020). At the macroeconomic level, significant participation of organizations in investment channels can turn these sectors into productive ones, providing a vital funding source for businesses and infrastructure projects (Demirgüç-Kunt et al., 2018). The increased flow of resources into productive activities supports higher capital accumulation and directly contributes to GDP growth, underscoring the importance of investments. Therefore, this mobilization of capital fuels innovation and raises productivity (IMF, 2021).

Traditional investment channels (e.g., banks and brokerage houses), however, have historically been characterized by high entry barriers, complex processes, and significant fees, which limit access to a relatively small segment of the population. These barriers have restricted massive participation, leaving a large percentage of individuals excluded from opportunities to build assets and strengthen their financial security (Demirgüç-Kunt et al., 2007). In response to these limitations, digital platforms have emerged as innovative alternatives that lower the entrance barriers and expand access to investments. These platforms offer streamlined digital onboarding, transparent cost structures, and the ability to invest with smaller amounts (Sironi, 2016). These characteristics position online brokers as a promising lever to democratize investment in contexts like Peru. Globally, assets managed through these platforms have grown rapidly, with projections indicating that online brokerage services will continue to expand and attract a broader base of retail investors comprising an estimated market of over \$13 billion (Statista, 2023).

Despite the associated opportunities and technological enablers, the penetration of online brokers in Peru is still far below regional peers. As a proxy, the mutual fund industry represents only about 3.1% of GDP, compared with 17.8% in Chile, 9.3% in Mexico, and 7% in Colombia (Torres, 2025). This reality underscores the relevance of studying the drivers shaping their adoption in this country, as low participation in investment instruments restricts households' ability to build wealth, diversify risks, and achieve long-term financial resilience. The problem lies in the persistent gap between interest and actual adoption of online investment platforms, which limits financial inclusion.

Because expanding financial inclusion through digital investing ultimately depends on individuals adopting online investment platforms, understanding the determinants of adoption constitutes a necessary first step toward achieving broader financial inclusion. However, despite the growing importance of these platforms,

little is known about how the demands associated with investment activities and the technological capabilities of online investment platforms jointly shape users' adoption decisions, particularly in emerging markets such as Peru. Accordingly, this study addresses the following research question: How do investment task demands and platform technological capabilities jointly influence user perceptions of task–technology fit and, ultimately, their intention to adopt online investment platforms? The objective of this study is therefore to examine the technological and behavioral factors that influence the adoption of online investment platforms in Peru by applying the Task–Technology Fit framework.

Literature Review

This study organized prior studies into four research streams: three thematic axes and one focused on geographic-based results. The first three capture demographic and psychological characteristics, technological features, and enabling conditions such as costs and literacy. The fourth focuses on regional differences, highlighting how these factors interact in Latin America.

The first group of studies (demographic and psychological characteristics) emphasizes demographics and psychological factors. In Asia, Lin et al. (2010) showed that younger and male investors were more likely to trade online, achieving efficiency gains without performance loss. Similarly, Singh and Malhotra (2016) highlighted demographic and psychological drivers in the Indian context, while Johri et al. (2023) added awareness, perceived risk, and reliability as factors shaping adoption. However, this research stream remains limited by its emphasis on who adopts rather than how individual investment needs interact with the technological capabilities of platforms, leaving unexplored whether demographic traits translate into different task-related requirements or fit perceptions.

As for the second research stream (technological features), it centers on technology acceptance, trust, and usability. Fernando et al. (2021) and Adi and Sfenrianto (2024) found that ease of use, security, and trust strongly influence intention to adopt online trading apps among Millennials in Indonesia. In the same vein, Arfina et al. (2023) synthesized more than 90 determinants within the Technology Adoption Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT) frameworks, highlighting the roles of ease of use and trust. Beyond Indonesia, Soebdhan (2023) reported that the convenience, transparency, and cost-effectiveness of these platforms played an important role in the Netherlands. However, these studies evaluate platform features in isolation, without assessing how such technological attributes align with users' investment tasks or needs.

The third group of studies highlights enabling conditions such as costs, tools, and financial literacy. Clar (2024) stressed the importance of fees, tools, and robo-advice as differentiators among U.S. brokers, while Shizume (2024) documented how Japan's NISA program encouraged younger investors to trade via smartphones, leading to a significant increase in the market share of online brokers at the expense of banks and traditional brokerage houses. Financial literacy has also been consistently identified as a determinant of adoption: Alqam and Hamshari (2024) demonstrated its relevance for youth inclusion in Jordan, while Demirguç-Kunt et al. (2018) emphasized its role in facilitating safe access globally. However, these studies tend to treat enabling conditions as external factors, without examining how they shape user perceptions.

Finally, a fourth dimension focuses on regional patterns and institutional context. In Latin America, empirical evidence is still emerging but follows similar patterns to those found in Asia and Europe. CAF (2022), Mastercard (2023), and AMI (2023) reported that digital trust and user education are the main barriers to fintech adoption in countries like Mexico, Colombia, and Chile. In Brazil, De Souza and Da Silva (2023) found that perceived risk and lack of investor protection limit the expansion of online

investment platforms despite high mobile connectivity. These findings suggest that, beyond usability and trust, institutional confidence, regulatory maturity, and financial education play a decisive role, particularly in Peru's underdeveloped capital market, where studies have yet to be conducted.

Taken together, prior research shows that adoption is shaped by demographic and psychological characteristics, technological features offered by platforms, and enabling conditions such as costs, literacy, and available tools. At the same time, regional context determines how these factors materialize in practice. However, two important theoretical gaps remain. First, previous studies have generally examined user characteristics and platform characteristics independently, providing limited understanding of how investment task requirements interact with technological capabilities. Second, despite the growing importance of digital investing for financial inclusion, few studies have examined these relationships through a Task–Technology Fit perspective, particularly in emerging markets such as Peru. These limitations suggest the need for a theoretical perspective capable of jointly explaining task requirements and technological capabilities, making the Task–Technology Fit framework particularly suitable for the present study.

Theoretical Framework and Hypotheses

The Task-Technology Fit (TTF) Framework

The Task-Technology Fit (TTF) framework, initially developed by Goodhue and Thompson (1995) argues that technology use and performance outcomes are maximized when the functionalities of a technology align closely with the requirements of the task at hand. In this view, adoption is not only shaped by users' subjective perceptions of usefulness or ease of use as highlighted in TAM, but also by the extent to which the technology objectively supports their activities.

Applied to the present research, the Task–Technology Fit framework provides an appropriate theoretical lens for addressing the research question identified in the Introduction. Specifically, TTF explains technology adoption as a function of the alignment between investment task requirements and the technological capabilities provided by online investment platforms. Investors' tasks are inherently dynamic since they involve decision-making under conditions of uncertainty and market volatility. Effective portfolio control becomes essential, requiring users to manage assets based on individual needs, strategies, and risk assessments. Access to funds, accurate execution of trades, and timely adaptation to market conditions are all task demands that shape adoption. Correspondingly, online platforms must provide technological features that enable these activities, such as real-time information, security, and autonomy. The alignment or misalignment between the demands of investment tasks and the capabilities of online platforms is therefore central to understanding both the initial adoption and the sustained use of such technologies. Figure 1 illustrates the interaction proposed by TTF.

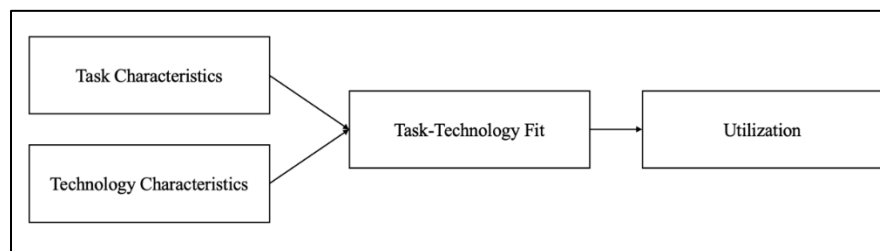


Figure 1. Task-Technology Fit Proposed Model

Eliciting Task Features

Eliciting potential user perceptions of the associated task and technology was a key part of the study. An open-ended survey was carried out with 30 university students aged 22 to 25, recruited through snowball sampling with a focus on finance-related academic programs, to capture perceptions of the features and limitations of online investment platforms. Participants reported varying levels of prior investing experience, ranging from no direct experience to active use of investment platforms. Because this stage is exploratory, a large sample was not required; statistical validation will follow later. This approach aligns with prior work on salient beliefs (Ajzen, 1991; Ajzen, 2002).

On the task side, participants most often mentioned quickness, stressing the need to react quickly in markets where conditions shift in seconds. Control over the portfolio also appeared, reflecting expectations of independent management in allocation, diversification, and rebalancing. Accuracy was valued for its role in reliable execution and error reduction. Risk emerged as a recurring concern, tied to both market uncertainty and potential losses. Finally, volatility was noted as an inherent market feature, highlighting the demand for timely and precise information. This study defines and discusses the following task demands:

- **Quickness:** Refers to investors' expectation that investment decisions should be conducted without delay. In financial markets, opportunities and risks often arise and evolve rapidly, which creates a natural demand for timely judgment and swift execution.
- **Control over the portfolio:** Refers to investors' perception of having the necessary knowledge, skills, and personal authority to direct the investment process independently. In financial decision-making, individuals evaluate not only market conditions but also their own capacity to manage choices, assess risks, and maintain responsibility over their actions. Control, therefore, reflects the degree to which investors feel that investment decisions should remain under their command.
- **Accuracy:** Refers to investors' ability to make precise, well-reasoned, and disciplined investment decisions based on their own judgment, analysis, and effort. In financial markets, investment outcomes are strongly shaped by the quality of individuals' choices, including how effectively they interpret information, evaluate alternatives, and execute their strategies.
- **Risk:** Refers to investors' perception of uncertainty arising from the possibility of errors that may negatively affect investment outcomes. This includes concerns about failures or interruptions that prevent actions from being completed as intended, the potential for transactions to be processed incorrectly by intermediaries, and mistakes committed by the investor such as entering the wrong amount or selecting an incorrect instrument. These situations increase the perceived difficulty of the investment task, as individuals must remain alert to the possibility of unintended losses.
- **Volatility:** Refers to investors' perception of unpredictability in the value of financial assets. It captures the sense that returns may fluctuate sharply, that market performance is difficult to anticipate, and that price movements require continuous attention. When volatility is high, investors face a more demanding task, as they must interpret frequent changes, reassess positions quickly, and operate under uncertainty.

Together, these five complementary dimensions define the overall demands associated with performing online investment activities and therefore jointly form the higher-order construct "Task Demands." Although these dimensions represent different characteristics of investment activities, they all capture distinct aspects of the overall demands that investors face when making online investment decisions. Together, they define the cognitive and operational requirements imposed by the investment task rather than reflecting interchangeable manifestations of a single underlying trait. Accordingly, Task Demands is defined as the aggregate perceived cognitive and operational load placed on investors when engaging with online investment platforms, encompassing the requirements of acting quickly, maintaining accuracy,

managing risk, adapting to market volatility, and exercising independent control over the investment process. In line with Edwards (2001), this higher-order construct is formed by its dimensions, such that the overall perception of the demanding level of these tasks arises from the combined influence of quickness, control, accuracy, risk, and volatility. As Polites et al. (2012) note, formative structures operate through relationships that flow from the first-order dimensions to the higher-order construct, meaning that each dimension contributes uniquely to shaping the construct while remaining independent from the others. A change in one component affects the overall perception of “Task Demands” without requiring changes in the remaining dimensions. Each dimension captures a distinct requirement of online investment, and removing any of them would narrow the construct’s conceptual domain. Consistent with the guidance of MacKenzie et al. (2011), the formative specification is therefore the most appropriate in this case.

Eliciting Technology Features

On the technology side, autonomy was important, as users expected platforms to enable independent decision-making without intermediaries. Information provided by the platform was seen as vital to decision-making, with investors calling for clarity and interactivity in the data. Likewise, safety was a repeated term, underscoring concerns about fraud and cybersecurity. Finally, participants emphasized availability, which referred to uninterrupted platform operation during critical trading periods. Hence, this study defines each technology feature that is salient for users in this context:

- **Autonomy:** An advantage of digital platforms is the independence they grant to investors. Autonomy means being able to make decisions on allocation, diversification, and rebalancing directly through the platform, using built-in tools and data. Investors value platforms that minimize reliance on third parties, enabling them to act on their own strategies immediately without delay.
- **Information provided:** Decision-making in financial markets depends on access to reliable and timely information. Platforms are expected to deliver not only raw data but also interactive graphs, performance indicators, and analytical insights. The scope, clarity, and reliability of the provided information directly influence the degree to which investors can execute their tasks with precision.
- **Safety:** Security is a fundamental concern given that online investing involves sensitive financial data and transactions. Safety refers to the mechanisms that protect against risks such as fraud, hacking, or unauthorized account access. Strong encryption, two-factor authentication, and visible safeguards build trust, while weak or opaque protections can deter adoption.
- **Availability:** For investors, market opportunities and risks do not wait for technical downtime. Availability, therefore, captures the need for platforms to maintain continuous operation, particularly during periods of high volatility where systems may become saturated. Interruptions can delay trade execution, leading to missed opportunities.

Taken together, these four dimensions conceptualize the degree to which these platforms enable investment tasks, which is named “Technology Enablement” in this study. Autonomy, information provided, safety, and availability represent different technological capabilities that collectively determine the extent to which an online investment platform enables users to perform investment activities effectively. Rather than reflecting the same technological attribute, each dimension contributes a unique enabling capability to the overall construct. This higher-order construct does not exist prior to its dimensions; instead, it is created through the combined contributions of autonomy, information, safety, and availability. As Polites et al. (2012) emphasize, formative structures operate through relationships that flow from the first-order dimensions to the higher-order construct. It means that each technological attribute contributes uniquely to shaping perceptions of “Technology Enablement,” and changes in one dimension do not require changes in the others. Each dimension reflects a distinct technological capability that supports online investing, and

removing any of them would reduce the construct's conceptual completeness. Hence, "Technology Enablement" is conceptualized as formative.

Fit Between Task and Technology

Building upon the theoretical gaps identified in the literature, TTF suggests that users evaluate online investment platforms according to the extent to which their technological capabilities support the demands associated with investment activities. Accordingly, the following hypotheses are proposed.

The fit between tasks and technology explains adoption by showing how platform features respond to investor needs. Quickness as a task is enabled by availability, which allows investors to react rapidly to market changes. Control over the portfolio aligns with autonomy, since platforms that provide decision-making independence let users manage allocation and rebalancing freely. Decision accuracy is supported by clear and timely information provided, which helps investors reduce errors in the process. Risk is addressed through safety features that protect transactions and user data. Volatility increases the importance of availability and reliable information, ensuring that investors can adapt to price fluctuations with confidence. When these alignments are present, investors perceive that technology effectively supports their strategies. A lack of fit, for example, limited security or poor information, creates barriers that discourage sustained use. Based on this theoretical background, this study hypothesizes (see Figure 2):

H1: Higher perceptions of how demanding the investment tasks are (task demands) lead to higher perceptions of fit with online investment platforms

H2: Higher perceptions of the platform's technological capabilities (technology enablement) lead to higher perceptions of fit with online investing activities

H3: Higher perceptions of the fit between task demand and technology enablement lead to higher levels of user intention to use online investment platforms

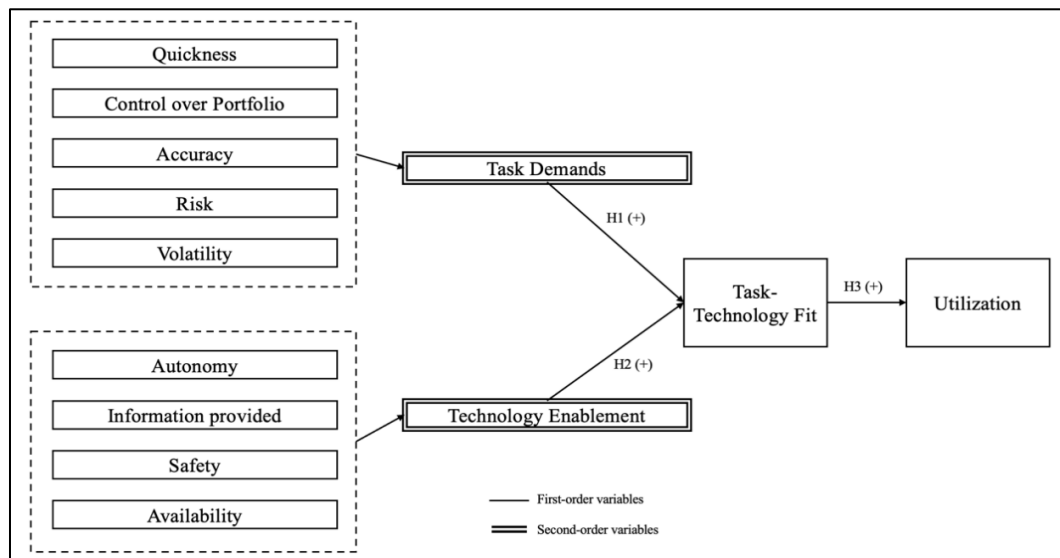


Figure 2. Proposed TTF Model for Online Investing Adoption

Research methodology

Measurement Instrument

All constructs were measured using items adapted from prior validated studies. Each item was contextualized to the online investment environment. Quickness was adapted from Chen (2008), Control from Libaque-Saenz et al. (2016), Accuracy from Ullah et al. (2021), Risk from Featherman and Pavlou (2003), Volatility from Aftab et al. (2024), Autonomy from Cheon et al. (2012), Information Provided from Miao et al. (2022), Safety from Oghuma et al. (2016), Availability from Libaque-Saenz et al. (2024), Fit from Larsen et al. (2009), and Intention from Libaque-Saenz et al. (2024). All variables were measured using three items each, and respondents evaluated the statements on a five-point Likert scale ranging from “Completely Disagree” (1) to “Completely Agree” (5).

In the case of the second-order variables: Task Demands and Technology Enablement, this study followed a two-step approach to assess higher-order variables. In the first step, a repeated-item approach was implemented by incorporating all items of the first-order variables also to measure the second-order variable. In the second step, this study used the latent scores from the first step to assess the second-order variable and the structural model.

Data Collection and Analysis

The target population consisted of individuals living in Peru who were familiar with or had some experience interacting with online investment platforms. Data were collected via an online questionnaire distributed via Google Forms, allowing participants to complete the survey independently. Participants were recruited through a snowball sampling technique, where initial respondents shared the survey with others who met the inclusion criteria. This approach was appropriate for reaching active or potential users of online investment platforms who typically engage in online financial communities. The survey was distributed primarily through university channels, reaching a mix of active investors already using online investment platforms and prospective investors with declared interest in doing so.

In terms of data analysis, structural equation modeling (SEM) was applied to test the research model because it allows simultaneous assessment of multiple relationships among latent variables (Hair et al., 2017). This study used the partial least squares (PLS) variance-based SEM technique because of sample size and use of higher-order formative variables (Hair et al., 2017). Finally, the analysis was conducted using SmartPLS 4.0.

Sample

Data were collected in October and November 2025, resulting in 150 valid responses after excluding incomplete or careless entries. According to Cohen (1992), at least 56 observations were required to detect an R^2 value of 0.25 with a power of 0.8 and a 0.05 significance level, assuming up to five predictors for the dependent variable. Therefore, the obtained sample size was considered adequate for SEM analysis.

Although the final sample satisfied the statistical adequacy criteria, it was not representative of the entire Peruvian investor population, and the findings should therefore be interpreted as indicative rather than definitive. The sample was predominantly composed of young adults aged 18 to 25 (53.8%) and individuals over 40 (36.5%), with a slight male majority (59%) and a high level of educational attainment: 47.4% held a university degree and 23.1% a master's degree. This profile reflects meaningful exposure to financial information and digital tools, appropriate for studying behavioral intentions toward online investment platforms.

Results

Analysis of reliability and validity for first-order variables

The validity of the measurement model was confirmed through construct reliability, convergent validity, and discriminant validity analyses. To evaluate reliability and convergent validity, this study assessed item reliability, internal consistency, and the average variance extracted (AVE). Item reliability was verified by checking each indicator's loading on its associated construct. All items exceeded the recommended 0.7 threshold (omitted for brevity) proposed by Barclay et al. (1995) except for QUI1, CO2, and RI3, which did not meet the minimum loading required and were thus deleted from further analysis. Internal consistency was evaluated using composite reliability and Cronbach's alpha, which ranged from 0.876 to 0.963 and from 0.722 to 0.942, respectively (see Table 1). Both metrics exceeded the commonly accepted minimum value of 0.7 (Nunnally, 1978). In addition, all AVE values were above the recommended 0.5 benchmark as suggested by Hu et al. (2004).

Table 1. Reliability and Convergent Validity

Construct	α	CR	AVE
Quickness	0.754	0.890	0.802
Control	0.722	0.878	0.782
Accuracy	0.844	0.906	0.762
Risk	0.738	0.876	0.780
Volatility	0.804	0.884	0.717
Autonomy	0.942	0.963	0.897
Information provided	0.879	0.925	0.805
Safety	0.886	0.929	0.815
Availability	0.864	0.917	0.786
Fit	0.927	0.953	0.872
Intention to Use	0.895	0.934	0.826

Note: α = Cronbach's alpha; CR = Composite reliability; AVE = Average variance extracted

To evaluate discriminant validity, this study examined the heterotrait–monotrait ratio (HTMT), noting that current guidelines indicate that HTMT values should fall below 0.85 for conceptually distinct constructs and below 0.90 for theoretically related constructs (Kline, 2011). As shown in Table 2, all HTMT values are below 0.85. Overall, these assessments confirm that the measurement model achieves satisfactory item reliability, convergent validity, and discriminant validity.

Table 2. Heterotrait-Monotrait Ratio (HTMT)

VAR	AC	AU	AVA	CO	FIT	INFO	IU	QUI	RI	SA	VO
AC	---										
AU	0.597	---									
AVA	0.511	0.722	---								
CO	0.813	0.677	0.602	---							
FIT	0.512	0.624	0.482	0.497	---						
INFO	0.540	0.668	0.769	0.533	0.544	---					
IU	0.568	0.768	0.741	0.678	0.775	0.702	---				
QUI	0.660	0.728	0.616	0.771	0.571	0.577	0.725	---			
RI	0.433	0.405	0.327	0.511	0.131	0.325	0.355	0.428	---		
SA	0.691	0.843	0.815	0.680	0.633	0.774	0.822	0.751	0.335	---	
VO	0.564	0.344	0.447	0.509	0.335	0.445	0.575	0.428	0.583	0.387	---

Note: VAR = Variable; AC = Accuracy; AU = Autonomy; AVA = Availability; CO = Control over portfolio; FIT = Fit; INFO = Information Provided; IU = Intention to Use; QUI = Quickness; RI = Risk perceived; SA = Safety; VO = Volatility

Analysis of reliability and validity for higher-order variables

In the case of the proposed higher-order constructs, Task Demands and Technology Enablement, both were theorized as formative and operationalized using the two-stage approach. These constructs follow a reflective-formative specification, where the repeated indicators are modelled as formative components, as recommended by Hair et al. (2017). For formative latent variables, it is essential to examine potential multicollinearity among their components before interpreting their weights.

Multicollinearity was assessed through VIF values for all indicators associated with Task Demands (QUI, CO, AC, RI, and VO) and Technology Enablement (AU, INFO, SA, and AVA). All VIF values ranged from 1.474 to 3.316, remaining below the commonly accepted threshold of 5 (Hair et al., 2017). Hence, multicollinearity does not threaten the estimation of either formative higher-order construct. The paths from the first-order dimensions to each second-order construct were then examined. These paths represent the weights of the formative components and should be statistically significant to confirm their relative contribution (MacKenzie et al., 2011). As shown in Table 3, most components exhibited significant weights for both Task Demands and Technology Enablement, supporting their relevance for forming the constructs. For CO and VO on Task Demands and AVA on Technology Enablement, their weights were not significant; however, their loadings exceeded 0.50, indicating that although their relative importance may be limited, their absolute contribution is sufficient to justify retaining them in the measurement model.

Table 3. Weights of the Dimensions of Task Demands and Technology Enablement

Construct	Components	Weight	Loading	R ²
Task Demands	Quickness (QUI)	0.569*	0.862	0.991
	Control over Portfolio (CO)	0.165	0.732	

	Accuracy (AC)	0.423*	0.822	
	Risk (RI)	-0.274*	0.217	
	Volatility (VO)	0.191	0.525	
Technology Enablement	Autonomy (AU)	0.526*	0.932	0.983
	Information Provided (INFO)	0.264*	0.797	
	Safety (SA)	0.425*	0.920	
	Availability (AVA)	-0.131	0.695	

Note: * $p < 0.10$

Overall, all the Task Demands components explained 99.1% of the variance, with Quickness (QUI) emerging as the most influential dimension, followed by Accuracy (AC). Similarly, the four components of Technology Enablement explained 98.3% of the variance, with Autonomy (AU) contributing the most, followed by Safety (SA). These high R^2 values are expected because the second-order formative constructs were estimated using the two-stage approach, in which the higher-order constructs are formed directly from the latent scores of their first-order dimensions. Consequently, the reported R^2 values reflect the formative composition of the higher-order constructs rather than the explanatory power of the structural model. Accordingly, these results indicate that both formative constructs are adequately specified and capture the multidimensional nature of user perceptions of the demands of the investment task and the technological features that enable its execution.

Structural Model

To evaluate the structural model, this study examined the explanatory power (R^2) of the endogenous constructs and assessed the significance of the hypothesized relationships. The model explains 42.3% of the variance in Perceived Fit (FIT) and 50.4% of the variance in Intention to Use (IU) online investment platforms. These values indicate moderate explanatory power and suggest that the model's antecedents meaningfully account for user perceptions and adoption intentions.

The results of the path analysis provide strong support for all three hypotheses. First, Task Demands exhibits a significant positive effect on Perceived Fit (H1, $\beta = 0.235$, $p = 0.008$). This finding indicates that user perceptions of the investment task, reflected in dimensions such as quickness, accuracy, control over the portfolio, volatility, and risk, contribute to shaping how well they perceive the platform supports their investment activities. Second, Technology Enablement also significantly predicts Perceived Fit (H2, $\beta = 0.465$, $p < 0.001$). This result highlights the importance of platform-level characteristics such as autonomy, information quality, safety, and availability in enhancing user perceptions of alignment between what they need to perform the task and what the platform provides. Notably, Technology Enablement emerges as the strongest predictor of Perceived Fit, exerting a greater influence than Task Demands.

Finally, Perceived Fit shows a substantial effect on Intention to Use (H3, $\beta = 0.710$, $p < 0.001$). This suggests that Perceived Fit is a central mechanism in the model. When users feel that online investment platforms effectively match their task requirements and provide the necessary technological support, they are considerably more likely to express an intention to adopt and use these platforms (see Figure 3).

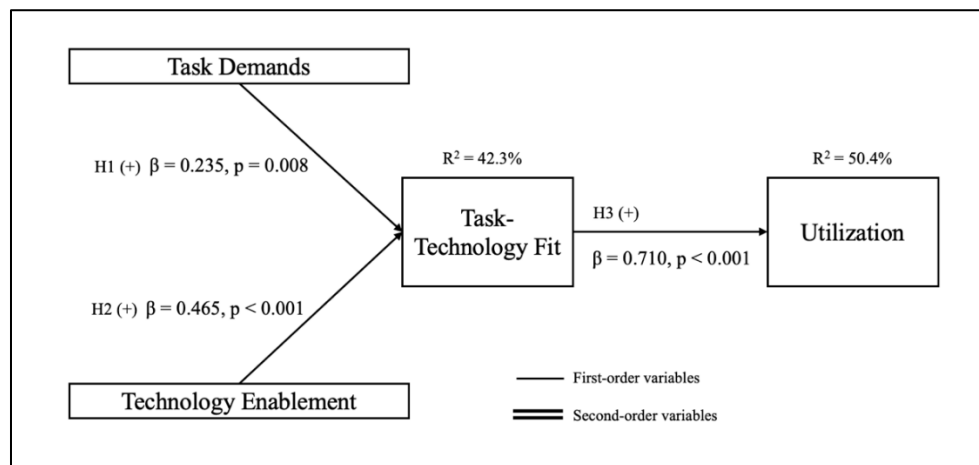


Figure 3. Structural Model Assessment

Discussion and implications

The objective of this study was to analyze the determinants of online investment platform adoption in Peru through a task-technology fit perspective, incorporating both user perceptions of how demanding investment tasks are and the technological capabilities offered by digital platforms. The structural results supported all proposed hypotheses, showing that both Task Demands and Technology Enablement significantly predict Perceived Fit, and that Perceived Fit strongly determines user intention to adopt online investment platforms. Overall, these findings highlight the central role of perceived alignment between what users need to do when investing and what the platform allows them to achieve.

The significant effect of Task Demands and Technology Enablement indicates that adoption is shaped by an evaluative process in which users consider their investment requirements, such as acting quickly, maintaining accuracy, or retaining control over their portfolio, and then assessing whether the platform provides the tools needed to support those activities. Among the antecedents, technological features exerted the strongest influence on Perceived Fit, underscoring the importance of autonomy, information quality, and safety mechanisms in strengthening user confidence. Perceived Fit thus emerges as the central mechanism through which these factors translate into behavioral intention, confirming its significance in the context of digital financial services.

Theoretical Implications

Regarding theoretical implications, this research addresses an important gap in the existing literature. Prior studies have primarily examined demographic and psychological characteristics, technological features, or enabling conditions independently, with limited attention to how investment task requirements interact with the technological capabilities of online investment platforms. By integrating these elements within the Task–Technology Fit (TTF) framework, this study demonstrates that technology adoption depends not only on user characteristics or platform features in isolation, but on the extent to which technological capabilities support the demands associated with investment activities. Furthermore, testing this model in the Peruvian context extends the limited evidence available on digital investment adoption in emerging markets.

The structural results provide additional theoretical insights beyond supporting the proposed hypotheses. The stronger effect of Technology Enablement compared with Task Demands suggests that, in digital

investment contexts, users evaluate task–technology fit primarily through the technological capabilities available to accomplish investment activities. This finding extends the TTF framework by suggesting that the relative importance of task and technology components may vary according to the characteristics of the decision context, rather than contributing equally to perceptions of fit. Moreover, the strong influence of Perceived Fit on Intention to Use reinforces the central proposition of TTF that technology adoption depends on the alignment between task requirements and technological capabilities. Together, these findings demonstrate not only that TTF is applicable to online investment platforms but also provide additional insight into how its core mechanisms operate in technology-intensive financial decision-making environments.

Practical Implications

The results show that expanding responsible adoption of online investment platforms in Peru requires responding effectively to the demands of the investment task and strengthening the technological capabilities that support it. Users place the highest importance on quickness and accuracy, while autonomy and safety emerge as the most influential technological enablers. These four dimensions should guide the strategic priorities of platforms, regulators, and policymakers. Reinforcing the speed and precision with which users can invest, and ensuring that platforms offer independent control alongside robust protection, are essential steps for addressing the low trust, high perceived risk, and limited experience that currently limit financial inclusion in the country.

Concrete improvements can be made to address these priorities. To enhance speed, platforms can reduce latency and improve execution speed by leveraging scalable cloud infrastructure and creating immediate confirmation flows that enable users to act more quickly during volatile market conditions. To improve accuracy, firms can implement order-preview and validation mechanisms to prevent common input errors, and redesign analytics to deliver clearer, more interactive insights that support informed decisions. On the technological side, autonomy can be reinforced by providing comprehensive control over portfolio actions such as self-managed rebalancing and personalized strategy execution, and by enabling investors to automate rules that reflect their preferences without depending on intermediaries. Safety can be improved by combining biometric authentication with additional verification for sensitive actions, and by deploying real-time detection systems that alert users to suspicious activity before it affects their assets.

Finally, effective communication is essential to ensure that users understand how these improvements meet the practical demands of investing. Many Peruvians with limited financial literacy do not recognize how technological features help them react quickly to market changes, make more accurate decisions, maintain control over their investments, or reduce exposure to fraud. Communication campaigns should therefore highlight the direct connection between each feature and the specific task it supports, using relatable and straightforward explanations that reduce complexity and build trust. Public institutions can reinforce these efforts through education initiatives that clarify how digital investment tools work and how they protect users. By improving the capabilities that matter most and communicating them clearly, the industry can increase perceived fit, strengthen confidence, and contribute meaningfully to expanding financial participation and inclusion in Peru.

Platform providers operating in emerging markets such as Peru should consider tiered onboarding experiences that reduce entry friction for first-time investors, including simplified account setup and low minimum investment thresholds. Partnerships with local financial regulators to promote cybersecurity certifications can further signal platform trustworthiness to a skeptical user base. Additionally, providers may benefit from incorporating social proof mechanisms, such as community ratings or peer investment summaries, to build confidence among users with limited prior experience.

Limitations and Future Research

This study has several limitations. The sample size of approximately 150 respondents reduces statistical power, and the concentration of participants in Lima limits the representativeness of the findings for Peru as a whole. In addition, the reliance on self-reported data may introduce perceptual or recall biases. These factors restrict the external validity of the study and should be considered when interpreting the results. Future research should address these limitations by incorporating larger and more diverse samples that include participants from different regions and socioeconomic backgrounds. Studies using behavioral or transactional data would provide more accurate insights into actual investment behavior beyond self-reported intentions. Comparative analyses across Latin American markets could also help clarify how institutional context and regulatory maturity shape adoption. Future research may extend the proposed TTF model by incorporating additional determinants identified in the literature, such as trust, financial literacy, perceived risk, digital confidence, or risk attitudes, to provide a more comprehensive understanding of online investment platform adoption. Finally, some findings in the formative measurement model were evaluated using a $p < 0.10$ significance threshold. Although this criterion has occasionally been considered acceptable in exploratory analyses with relatively small samples, these results should be interpreted with caution. Future studies employing larger samples are encouraged to re-examine the relative contribution of the formative dimensions using more conservative significance thresholds to further assess the robustness of the findings.

References

- Adi, E., & Sfenrianto, S. (2024). Analysis of factors that influence the use of online investment applications (Ajaib). *Syntax Idea*, 6(8), 3486–3504. <https://doi.org/10.46799/syntax-idea.v6i8.4237>
- Aftab, J., Abid, N., Sarwar, H., Amin, A., Abedini, M., & Veneziani, M. (2024). Does corporate social responsibility drive financial performance? *Corporate Social Responsibility and Environmental Management*, 31(3), 1634–1653. <https://doi.org/10.1002/csr.2654>
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Ajzen, I. (2002). *Constructing a TPB questionnaire: conceptual and methodological considerations*. <https://people.umass.edu/aizen/pdf/tpb.measurement.pdf>
- Alqam, M. A., & Hamshari, Y. M. (2024). The impact of financial literacy on financial inclusion for financial well-being of youth: evidence from Jordan. *Discover Sustainability*, 5(1), 528. <https://doi.org/10.1007/s43621-024-00704-6>
- Arfina, A., Juwitasary, H., & Angelus, M. (2023). Factors that influence consumers in using online investment platforms - systematic literature review. In *Proceedings of the 2023 International Conference on Information Management and Technology*, Malang, Indonesia (pp. 310–315).
- Barclay, D., Higgins, C., & Thompson, R. (1995). The partial least squares (PLS) approach to causal modeling: Personal computer adoption and use as an illustration. *Technology Studies*, 2(2), 285–309.

- CAF – Banco de Desarrollo de América Latina. (2022). *Inclusión financiera en América Latina: avances y desafíos en la era digital*. CAF – Banco de Desarrollo de América Latina.
<https://doi.org/10.18235/0000030>
- Chen, L. (2008). A model of consumer acceptance of mobile payment. *International Journal of Mobile Communications*, 6(1), 32–52. <https://doi.org/10.1504/IJMC.2008.015997>
- Cheon, J., Lee, S., Crooks, S. M., & Song, J. (2012). An investigation of mobile learning readiness in higher education based on the theory of planned behavior. *Computers & Education*, 59(3), 1054–1064. <https://doi.org/10.1016/j.compedu.2012.04.015>
- Clar, K. (2024). *Ranking the online brokers*. Kiplinger.
- Cohen, J. (1992). Statistical power analysis. *Current Directions in Psychological Science*, 1(3), 98–101
- Demirgüç-Kunt, A., Klapper, L., Singer, D., Ansar, S., & Hess, J. (2018). *The global index database 2017: Measuring financial inclusion and the fintech revolution*. World Bank.
<https://doi.org/10.1596/978-1-4648-1259-0>
- De Souza, R., & Da Silva, M. (2023). Determinants of online investment platform adoption in Brazil: the role of risk perception and investor protection. *Journal of Latin American Financial Studies*, 15(2), 45–62. <https://doi.org/10.1016/j.jlafs.2023.02.004>
- Demirgüç-Kunt, A., Beck, T., & Martínez Pería, M. S. (2007). *Banking services for everyone? Barriers to bank access and use around the world* (Policy Research Working Paper No. 4079). World Bank.
<https://doi.org/10.1596/1813-9450-4079>
- Edwards, J. R. (2001). Multidimensional constructs in organizational behavior research: an integrative analytical framework. *Organizational Research Methods*, 4(2), 144–192.
<https://doi.org/10.1177/109442810142004>
- Fernado, E., Tjhin, S. W. H., Mulyono, & Meiyarni. (2021). A proposed model to measure the influence factor of adoption for online investment application. In *Proceedings of the 2021 International Conference on Computer Science and Engineering (IC2SE)*, Padang, Indonesia (pp. 1–5).
- Goodhue, D., & Thompson, R. (1995). Task-technology fit and individual performance. *MIS Quarterly*, 19(2), 213–236. <https://doi.org/10.2307/249689>
- Hair, J., Hult, T., Ringle, C., & Sarstedt, M. (2017). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)* (2nd ed.). SAGE Publications.
- Hu, X., Lin, Z., Whinston, A. B., & Zhang, H. (2004). Hope or hype: on the viability of escrow services as trusted third parties in online auction environments. *Information Systems Research*, 15(3), 236–249. <https://doi.org/10.1287/isre.1040.0027>

- IMF. (2021). *Global financial stability report, October 2021: COVID-19, crypto, and climate; navigating challenging transitions*. International Monetary Fund.
<https://www.imf.org/en/publications/gfsr/issues/2021/10/12/global-financial-stability-report-october-2021>
- Ipsos Perú. (2023). *Estudio sobre hábitos financieros y percepción del sistema bancario en el Perú*. Ipsos Perú. <https://www.sbs.gob.pe/noticia/detallenoticia/idnoticia/2658>
- Johri, A., Wasiq, M., Kaur, H., & Asif, M. (2023). Assessment of users' adoption behaviour for stock market investment through online applications. *Heliyon*, 9(9), e19524.
<https://doi.org/10.1016/j.heliyon.2023.e19524>
- Kline, R. B. (2011). *Principles and Practice of Structural Equation Modeling*. Guilford Press.
- Larsen, T. J., Sørebo, A. M., & Sørebo, Ø. (2009). The role of task-technology fit as users' motivation to continue information system use. *Computers in Human Behavior*, 25(3), 778–784.
<https://doi.org/10.1016/j.chb.2008.07.006>
- Libaque-Sáenz, C. F., Wong, S. F., Chang, Y., Ha, Y. W., & Park, M.-C. (2016). Understanding antecedents to perceived information risks: an empirical study of the Korean telecommunications market. *Information Development*, 32(1), 91–106. <https://doi.org/10.1177/0266666913516884>
- Libaque-Saenz, C. F., Ortega, C., Rodriguez-Serra, M., Chong, M., & Lopez-Puente-de-la-Vega, S. (2024). The role of interoperability and inter-side benefits on merchants' e-wallet adoption: the case of Peruvian nanostores. *Industrial Management & Data Systems*, 124(1), 64–84.
<https://doi.org/10.1108/IMDS-04-2023-0238>
- Lin, Y. C. G., Chiu, C.-L., & Kang, E. (2010). Understanding online traders' behavior: an example from common stock investment in Taiwan. *Social Behavior and Personality: An International Journal*, 38(5), 637–645. <https://doi.org/10.2224/sbp.2010.38.5.637>
- MacKenzie, S. B., Podsakoff, P. M., & Podsakoff, N. P. (2011). Construct measurement and validation procedures in MIS and behavioral research: integrating new and existing techniques. *MIS Quarterly*, 35(2), 293–A5. <https://doi.org/10.2307/23044045>
- Mastercard & Americas Market Intelligence (AMI). (2023, May). *The state of financial inclusion post COVID-19 in Latin America and the Caribbean: new opportunities for the payments ecosystem*.
https://www.mastercard.com/news/media/cacheaa4/report_en_ami_mastercard_financial_inclusion_post_covid.pdf
- Miao, M., Jalees, T., Zaman, S. I., Khan, S., Hanif, N.-u.-A., & Javed, M. K. (2022). The influence of e-customer satisfaction, e-trust and perceived value on consumer's repurchase intention in B2C e-commerce segment. *Asia Pacific Journal of Marketing and Logistics*, 34(10), 2184–2206.
<https://doi.org/10.1108/APJML-03-2021-0221>

Nunnally, J. C. (1978). *Psychometric Theory*. McGraw-Hill.

OECD. (2020). 2020 international survey of adult financial literacy. OECD.

https://www.oecd.org/en/publications/oecd-infe-2020-international-survey-of-adult-financial-literacy_145f5607-en.html

Oghuma, A. P., Libaque-Saenz, C. F., Wong, S. F., & Chang, Y. (2016). An expectation-confirmation model of continuance intention to use mobile instant messaging. *Telematics and Informatics*, 33(1), 34–47. <https://doi.org/10.1016/j.tele.2015.05.006>

Polites, G. L., Roberts, N., & Thatcher, J. (2012). Conceptualizing models using multidimensional constructs: a review and guidelines for their use. *European Journal of Information Systems*, 21(1), 22–48. <https://doi.org/10.1057/ejis.2011.10>

Ramírez, Z. (2023, August 11). Tres de cada 10 peruanos quieren empezar a invertir, ¿qué perfil tienen? *Diario Gestión*. <https://gestion.pe/tu-dinero/finanzas-personales/tres-de-cada-10-peruanos-quieren-empezar-a-invertir-que-perfil-tienen-noticia/>

Sarma, M., & Pais, J. (2011). Financial inclusion and development. *Journal of International Development*, 23(5), 613–628. <https://doi.org/10.1002/jid.1698>

Shizume, S. (2024, September 11). Online brokers are taking market share from bigger rivals in Japan. Bloomberg. <https://www.bloomberg.com/news/articles/2024-09-11/online-brokers-are-taking-japan-market-share-from-bigger-rivals>

Singh, A., & Malhotra, M. (2016). Factors influencing the adoption of online trading: a study of individual investors. *IOSR Journal of Business and Management*, 18(10), 21–26. <https://doi.org/10.9790/487X-1810022126>

Sironi, P. (2016). *FinTech innovation: From robo-advisors to goal-based investing and gamification*. Wiley.

Soebdhan, S. (2023). *Factors influencing the adoption of digital investment advice services: A study on demographic variations and investment experience levels* [Master thesis, Tilburg University]. <https://arno.uvt.nl/show.cgi?fid=162894>

Statista. (2023). *Online brokerage market size worldwide from 2017 to 2027*. <https://www.statista.com/statistics/1234567/online-brokerage-market-size-worldwide>

Torres, D. (2025). Fondos Mutuos en el Perú: ¿Qué Hemos Aprendido? ¿Qué Debemos Transformar? SMV. https://www.researchgate.net/publication/391700988_Fondos_Mutuos_en_el_Peru_Que_hemos_aprendido_Que_debemos_transformar

Ullah, Z., Ahmad, N., Scholz, M., Ahmed, B., Ahmad, I., & Usman, M. (2021). Perceived accuracy of electronic performance appraisal systems: The case of a non-for-profit organization from an emerging economy. *Sustainability*, 13(4), 2109. <https://doi.org/10.3390/su13042109>