

Original Article

Trust, Technology, and Access: A Conceptual Framework for Digital Financial Inclusion in Mutual Fund Investment Behaviour in India

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Abstract: Digital financial inclusion in India has advanced rapidly in payments and credit, yet its extension into long-term wealth creation through mutual funds remains uneven. As of 30 June 2026, the Indian mutual fund industry managed assets exceeding ₹82 trillion across more than 27 crore folios, and regulators have introduced sachetised, low-ticket systematic investment plans to widen participation. However, the psychological mechanisms that convert digital access into sustained investment behaviour are not well understood. This conceptual paper synthesises literature from technology acceptance, organisational trust, and behavioural finance to propose an integrated framework in which trust and transparency, AI/Robo-advisory influence, and financial inclusion and accessibility act as antecedents of investor behaviour and risk perception, which in turn mediates their relationship with digital mutual fund adoption and Preference. Seven directional hypotheses and one mediation hypothesis are advanced and justified. The framework draws on the Technology Acceptance Model, the unified theory of acceptance and use of technology, the integrative model of organizational Trust, and Prospect Theory to extend fintech-adoption research into the specific, underexamined context of mutual fund investing in an emerging market. The paper concludes with a proposed empirical validation strategy using structural equation modelling, alongside theoretical, regulatory, and practical implications, as well as the model's limitations.

Keywords: Digital Financial Inclusion, Robo-Advisory, Investor Trust, Risk Perception, Mutual Fund Adoption, India, Conceptual Framework, PLS-SEM.

I. INTRODUCTION

Financial inclusion has historically been measured by access to a bank account. Yet, the diffusion of smartphones, biometric identification, and real-time payment rails has extended the concept into what scholars now call digital financial inclusion: the use of digital channels to deliver formal financial services affordably to previously underserved populations (Asif et al., 2023). India has become a widely cited example of this shift. Government-led digital public infrastructure, anchored in the Aadhaar biometric identity system, the Pradhan Mantri Jan Dhan Yojana bank-account programme, and the Unified Payments Interface, has been credited with narrowing the account-ownership gap at a pace few other economies have matched. Building on this foundation, the Reserve Bank of India's National Strategy for Financial Inclusion 2019–2024 explicitly widened the policy objective beyond payments to savings, credit, insurance, and pension products, signalling that the next frontier of inclusion lies in wealth-building instruments rather than transactional access alone (Reserve Bank of India, 2020).

Mutual funds are a natural test case for this broader ambition. The Association of Mutual Funds in India reported industry assets under management of approximately ₹82.22 trillion as of 30 June 2026, spread across more than 27 crore investor folios, a scale that has grown substantially over the preceding five years (Association of Mutual Funds in India, 2026). Much of this growth has been distributed through digital channels, and systematic investment plans routed through mobile applications have become a common entry point for a new generation of retail investors. Yet the number of unique mutual fund investors remains a small fraction of India's investable population, prompting the Securities and Exchange Board of India to propose the “sachetisation” of mutual fund investment: small-ticket systematic investment plans starting at ₹250 per month, designed explicitly to draw first-time investors from low-income and semi-urban segments into formal capital markets (Securities and Exchange Board of India, 2025). The Association of Mutual Funds in India has operationalised this policy intent through initiatives such as Chhoti SIP, aimed squarely at first-time and underprivileged investors (Association of Mutual Funds in India, 2026).

Alongside this accessibility push, artificial intelligence has begun to reshape how investment advice is delivered. Robo-advisory platforms and AI-assisted recommendation engines now sit alongside human distributors, promising lower costs, round-the-clock availability, and a reduction in some of the behavioural biases that erode retail investment performance (D'Acunto et



al., 2019). Indian studies of robo-advisory adoption report a consistent finding: trust, more than functional performance alone, determines whether investors are willing to delegate financial decisions to an algorithm (Fatima & Chakraborty, 2024; Manrai & Gupta, 2023). At the same time, the wider algorithm-aversion literature shows that people do not uniformly embrace automated advice; the same technology that appears to promise efficiency can just as easily trigger resistance once an error is observed or transparency is perceived to be lacking (Dietvorst et al., 2015; Logg et al., 2019). This tension between accessibility, automation, and trust is precisely where digital financial inclusion research in the investment domain remains thin.

Existing fintech-adoption studies tend to examine trust, artificial intelligence, and accessibility as parallel, disconnected predictors of a single adoption outcome, most commonly measured through technology-acceptance constructs such as perceived usefulness or behavioural intention (Nair et al., 2023). Comparatively little attention has been paid to the psychological mechanism, investor behaviour and risk perception, through which these structural and technological antecedents are converted into an actual decision to adopt a digital mutual fund platform. Behavioural finance has long established that risk perception, rather than objective risk, governs investment choice (Kahneman & Tversky, 1979), yet this construct is rarely modelled as a mediator connecting trust, AI-advisory influence, and accessibility to adoption within a single integrated framework, and rarer still in the specific context of mutual fund investing in an emerging market such as India.

This conceptual paper addresses that gap. It proposes and theoretically justifies an integrated framework in which Trust and Transparency (TT), AI/Robo-Advisory Influence (AI), and Financial Inclusion and Accessibility (FI) act as antecedents of Investor Behaviour and Risk Perception (RP), which mediates their relationship with Digital Mutual Fund Adoption and Preference (AD). Seven directional hypotheses and one mediation hypothesis are developed from the technology-acceptance, trust, and behavioural-finance literatures. The remainder of the paper is organised as follows. Section 2 reviews the literature underpinning each construct and develops the associated hypotheses. Section 3 outlines the theoretical foundations that inform the framework. Section 4 presents the conceptual model in full. Section 5 proposes a methodology for its future empirical validation. Sections 6 through 8 discuss theoretical contributions, practical and policy implications, and limitations, before Section 9 concludes.

II. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

A) *Digital Financial Inclusion: Concept and the Indian Context*

Digital financial inclusion is generally defined as the delivery of formal financial services through digital channels at a cost and level of convenience that brings previously excluded or underserved populations into the financial system, with India-focused research emphasising the interaction between government-led digital infrastructure and private fintech innovation as the primary driver of inclusion outcomes (Asif et al., 2023).

India's experience illustrates both the promise and the limits of a digital-first inclusion strategy. Account ownership expanded rapidly following the launch of the Pradhan Mantri Jan Dhan Yojana, and the Reserve Bank of India's National Strategy for Financial Inclusion 2019–2024 formally extended the inclusion agenda from basic accounts to savings, credit, insurance, and pension products delivered through a multi-stakeholder, technology-enabled model (Reserve Bank of India, 2020). Digital financial literacy, however, has not kept pace with digital access. Empirical work on Indian investors finds that digital financial literacy exerts a measurable effect on financial decision-making and well-being, and that this effect often operates jointly with financial accessibility and government support rather than acting alone (Kamble et al., 2024; Mishra et al., 2024). A validated measurement instrument developed for the Indian adult population similarly finds meaningful variation in digital financial literacy across demographic groups, underscoring that access to a smartphone or a bank account does not, by itself, guarantee the capability to use digital financial products with confidence (Ravikumar et al., 2022).

Mutual fund investing sits at the frontier of this unfinished inclusion agenda. Regulatory efforts such as the sachetisation of systematic investment plans are a direct policy response to the observation that formal wealth-creation instruments have penetrated far less deeply than payment or basic savings products (Securities and Exchange Board of India, 2025). This paper treats digital financial inclusion as the overarching phenomenon under investigation and examines it through three specific, testable antecedents: trust and transparency, AI-driven advisory influence, and platform accessibility, that the literature identifies as central to whether digitally included individuals actually convert access into investment behaviour.

B) *Trust & Transparency in Digital Investment Platforms (TT)*

Trust has long been treated as the foundation on which any exchange relationship involving risk and dependence is built. Mayer et al.'s (1995) integrative model defines trust as a willingness to be vulnerable to the actions of another party based on perceptions of that party's ability, benevolence, and integrity, a definition since extended to technology itself: McKnight et al. (2011) show that individuals form beliefs about the competence, reliability, and functionality of a specific technology somewhat independently of their trust in the organisation that provides it. In digital investment platforms, both forms of trust operate

simultaneously: trust in the fintech provider and trust in the underlying digital system, and transparency is one of the principal levers through which platforms attempt to build both.

Recent Indian and cross-market evidence supports the centrality of trust and transparency to fintech adoption. Studies of digital-native (“iGen”) users in India have developed a dedicated multi-dimensional scale in which financial transparency sits alongside security and privacy as a core determinant of FinTech trust (Panakaje et al., 2026). Perceived trust has also been shown to mediate the relationship between cutting-edge financial technology and its adoption among digital natives in the post-COVID-19 period (Chawla et al., 2023), while continuance-intention research on FinTech payment applications finds that trust, once established, is a stronger predictor of sustained use than initial adoption intention alone (Savitha et al., 2022). Conversely, when platforms are perceived to compromise user privacy or withhold meaningful disclosure, trust and adoption both suffer, a pattern documented across contactless and fintech payment contexts (Alalwan et al., 2024).

Within the proposed framework, Trust & Transparency is positioned as a distal antecedent that can influence adoption directly, by lowering the perceived exchange risk of committing money to a digital platform, and indirectly, by shaping how investors interpret and respond to risk once they are using the platform. This yields two hypotheses:

- H1: Trust & Transparency (TT) has a significant positive effect on Digital Mutual Fund Adoption & Preference (AD).
- H5: Trust & Transparency (TT) has a significant positive effect on Investor Behaviour & Risk Perception (RP).

C) AI / Robo-Advisory Influence (AI)

Robo-advisory platforms use algorithms, and increasingly machine-learning models, to construct portfolios, rebalance holdings, and deliver financial advice with minimal human intervention. In an early and widely cited field study, D’Acuneto et al. (2019) show that investors who adopt robo-advising exhibit measurable declines in classic behavioural biases, including the disposition effect and trend-chasing, alongside improved portfolio diversification, evidence that algorithmic influence can reshape investor behaviour and not merely investor convenience.

India-specific research reinforces the centrality of trust and performance expectancy, rather than novelty alone, in determining whether investors accept AI-driven advice. Survey-based studies of Indian robo-advisory users find that trust in the service and in the service provider, alongside subjective norms, significantly predict behavioural intention to adopt AI-based investment tools (Manrai & Gupta, 2023), and that performance expectancy and trust are the strongest determinants of adoption intention even as investors continue to report a residual preference for human advisors (Fatima & Chakraborty, 2024). Qualitative evidence from Indian banking, finance, and technology experts similarly points to unresolved concerns about the accuracy of algorithmic risk profiling as a barrier to fuller adoption (Bhatia et al., 2021), while an integrated technology-acceptance model of Indian FinTech users finds that trust and perceived usefulness, more than ease of use, shape attitudes toward robo-advisory services (Singh & Kumar, 2025). A parallel study conducted in China similarly positions trust as a mediating mechanism between UTAUT-based antecedents and robo-advisor usage behaviour, explaining more than half the variance in trust itself (Guo & Waked, 2026).

This body of work sits within a broader and still-unsettled debate about how people respond to algorithmic input. One stream of research documents algorithm aversion: once people observe an algorithm err, they trust it less than they trust an equivalent human, even when the algorithm remains objectively more accurate (Dietvorst et al., 2015). A second stream documents the opposite pattern, algorithm appreciation, in which people weight algorithmic advice more heavily than identical advice attributed to a human, particularly before any error is observed (Logg et al., 2019). Recent Indian evidence suggests investor attitude toward AI itself moderates whether functional and psychological barriers translate into outright resistance to financial robo-advisors (Verma et al., 2025). Because the direction of this influence appears to depend on context, prior experience, and platform design rather than being uniformly positive, AI/Robo-Advisory Influence is modelled here as an antecedent whose effect on investor behaviour and risk perception is hypothesised as positive but treated as an empirical question warranting direct testing rather than an assumed certainty:

- H2: AI/Robo-Advisory Influence (AI) has a significant positive effect on Investor Behaviour & Risk Perception (RP).

D) Financial Inclusion & Accessibility (FI)

Accessibility, in the sense used here, refers to the structural and design features that lower the practical barriers to opening and maintaining a mutual fund investment: minimum ticket size, ease of digital know-your-customer verification, vernacular-language interfaces, and the availability of low-friction payment mechanisms such as UPI autopay. India’s regulatory and industry response to persistently shallow mutual fund penetration has concentrated heavily on this lever. The Securities and Exchange Board of India’s sachetisation proposal explicitly borrows the “sachet” logic long used in consumer goods to reach low-income buyers, applying it to systematic investment plans that can be started for as little as ₹250 a month, restricted to simple growth-option schemes to keep the product easy to understand (Securities and Exchange Board of India, 2025). The Association of Mutual Funds in India has operationalised this policy through initiatives such as Chhoti SIP, aimed squarely at first-time and underprivileged investors (Association of Mutual Funds in India, 2026).

Whether accessibility improvements of this kind translate into more favourable investor behaviour, and not merely more account openings, remains less settled in the literature than its direct effect on adoption. Studies of digital financial literacy among Indian women find that financial accessibility significantly shapes financial decision-making, but that its effect operates jointly with financial attitude, subjective norms, and perceived behavioural control rather than as an independent, unconditional driver (Mishra et al., 2024). Related work on financial well-being finds that financial inclusion and digital financial literacy interact in ways that are not always additive, with accessibility alone sometimes insufficient to shift financial outcomes absent complementary literacy and trust (Kamble et al., 2024). This more tentative evidentiary base is reflected in the framework's treatment of accessibility's link to investor psychology as a proposed but comparatively weaker pathway, distinguished visually in the conceptual model, while its direct link to adoption is treated as a well-supported relationship consistent with the policy logic of sachetisation itself:

- H3: Financial Inclusion & Accessibility (FI) has a significant positive effect on Digital Mutual Fund Adoption & Preference (AD).
- H7: Financial Inclusion & Accessibility (FI) has a positive effect on Investor Behaviour & Risk Perception (RP).

E) Investor Behaviour & Risk Perception as a Central Mediator (RP)

Behavioural finance departs from classical expected-utility theory by treating perceived rather than objective risk as the proximate driver of financial choice. Prospect Theory established that individuals evaluate outcomes relative to a reference point, weight losses more heavily than equivalent gains, and distort probabilities in systematic ways, a set of mechanisms that together shape what researchers now generally term risk perception (Kahneman & Tversky, 1979). In digital investment contexts, risk perception is shaped not only by the characteristics of the underlying asset but by an investor's beliefs about the platform, provider, and advisory mechanism through which the investment is made.

A growing body of fintech-adoption research models exactly this kind of psychological variable as a mediator rather than a simple antecedent. Robo-advisory research offers a clear illustration: trust has been shown to operate as the mediating mechanism connecting UTAUT-based antecedents to robo-advisor usage behaviour, explaining more than half the variance in trust itself and the majority of variance in downstream usage (Guo & Waked, 2026). Perceived trust has similarly been shown to mediate the relationship between FinTech innovation more broadly and its adoption among digital natives in the post-COVID-19 period (Chawla et al., 2023).

These findings collectively support modelling Investor Behaviour & Risk Perception not merely as one predictor among several, but as the psychological mechanism through which the more distal, structural antecedents in this framework, trust and transparency, AI/robo-advisory influence, and accessibility, are converted into an adoption decision. Investor behaviour and risk perception are therefore hypothesised to have a direct effect on adoption, and, more importantly, to mediate the effects of the three antecedent constructs:

- H4: Investor Behaviour & Risk Perception (RP) has a significant positive effect on Digital Mutual Fund Adoption & Preference (AD).
- H8: Investor Behaviour & Risk Perception (RP) mediates the relationships of Trust & Transparency (TT), AI/Robo-Advisory Influence (AI), and Financial Inclusion & Accessibility (FI) with Digital Mutual Fund Adoption & Preference (AD).

F) Digital Mutual Fund Adoption and Preference (AD)

The outcome construct in this framework combines two related but distinct ideas: adoption, the behavioural decision to begin using a digital channel for mutual fund investment, and preference, the degree to which an investor favours the digital channel over traditional, distributor-mediated routes once both are available. Technology-acceptance research on Indian retail investors shows that mobile-application adoption for online trading and investment is shaped by a UTAUT-consistent set of predictors, and that adoption behaviour, once established, tends to be self-reinforcing as investors gain familiarity with the platform (Nair et al., 2023). This distinction between initial adoption and sustained preference echoes a wider continuance-intention literature in Indian FinTech, which finds that trust and post-adoption satisfaction, rather than the features that drove initial sign-up, best explain why users continue to prefer digital channels over time (Savitha et al., 2022).

Industry data reinforce the practical significance of this outcome construct: online and app-based channels account for a substantial and growing share of India's mutual fund distribution, alongside continued growth in overall assets under management and folio counts (Association of Mutual Funds in India, 2026). Yet growth in aggregate industry size does not, by itself, establish that any given individual investor has adopted or come to prefer the digital route over a human distributor, a family member's advice, or continued non-participation. Positioning Digital Mutual Fund Adoption & Preference as the terminal construct in the framework allows the model to capture both the initial decision to invest through a digital platform and the comparative

preference for that channel, both of which are shaped, this paper argues, primarily through the mediating psychological mechanism of investor behaviour and risk perception rather than directly by structural or technological antecedents alone.

III. THEORETICAL FOUNDATIONS

The framework draws on five complementary theoretical traditions rather than a single acceptance model, a deliberate choice consistent with technology-adoption research more broadly. Even the Unified Theory of Acceptance and Use of Technology was itself built by integrating eight prior models, precisely because no single theory adequately explained technology adoption across contexts (Venkatesh et al., 2003).

The Technology Acceptance Model (TAM) contributes the foundational insight that perceived usefulness and perceived ease of use are the two beliefs most proximate to an individual's intention to use a new information technology (Davis, 1989). Although the present framework does not adopt TAM's constructs by name, perceived usefulness and ease of use are implicitly embedded within how investors evaluate AI/Robo-Advisory Influence and Financial Inclusion & Accessibility.

The Unified Theory of Acceptance and Use of Technology (UTAUT) and its consumer-oriented extension, UTAUT2, contribute performance expectancy, effort expectancy, social influence, and facilitating conditions as core predictors of behavioural intention and use, along with the now well-established practice of modelling a psychological or intentional construct as a mediator between these predictors and actual usage behaviour (Venkatesh et al., 2003, 2012). This mediating logic is the direct theoretical precedent for positioning Investor Behaviour & Risk Perception as the mediator in the present model.

Trust theory, and specifically the Integrative Model of Organizational Trust, contributes the definition of trust as willingness to accept vulnerability based on perceived ability, benevolence, and integrity (Mayer et al., 1995), extended to technology-specific trust through the recognition that individuals evaluate a system's own reliability and functionality somewhat independently of the organisation behind it (McKnight et al., 2011). Together, these perspectives justify treating Trust & Transparency as a construct that can influence both direct adoption and the more psychological, risk-related evaluation captured by the mediator.

Prospect Theory contributes the behavioural-finance foundation for the mediator itself: the proposition that decisions under risk are governed by perceived rather than objective probabilities and by asymmetric sensitivity to gains and losses (Kahneman & Tversky, 1979). This underpins the theoretical claim that Investor Behaviour & Risk Perception is not merely a demographic or attitudinal control variable but an active psychological mechanism capable of transmitting the effects of trust, AI influence, and accessibility onto an adoption decision.

Finally, Rogers' Diffusion of Innovation theory contributes the broader diffusion logic, relative advantage, compatibility, complexity, trialability, and observability, that situates digital mutual fund platforms as an innovation whose spread through the Indian investor population follows a predictable, if not yet complete, adoption curve (Rogers, 2003). Diffusion of Innovation is particularly relevant to the accessibility construct, since sachetised, low-ticket products are explicitly designed to reduce the complexity and trialability barriers that diffusion theory identifies as slowing adoption among later-adopting segments of the population.

Mediation itself, the analytical logic joining these theories together in the present framework, follows the causal-steps approach originally proposed by Baron and Kenny (1986) and its modern, bootstrapping-based extension (Hayes, 2017), both of which are widely used in the fintech-adoption studies reviewed above to establish that a psychological or intentional construct meaningfully transmits, rather than merely accompanies, the effect of a distal antecedent on a behavioural outcome.

IV. CONCEPTUAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

Figure 1 presents the full conceptual framework. Trust and Transparency, AI/Robo-Advisory Influence, and Financial Inclusion and Accessibility are modelled as exogenous antecedents. Investor Behaviour and Risk Perception occupy the central, mediating position in the model, receiving paths from all three antecedents and, in turn, exerting their own direct effect on the terminal construct, Digital Mutual Fund Adoption and Preference. Trust and Transparency and Financial Inclusion and Accessibility are additionally modelled with direct paths to adoption that do not pass through the mediator, allowing the framework to test whether their influence is fully or only partially mediated by investor behaviour and risk perception. AI/Robo-Advisory Influence, by contrast, is modelled as operating on adoption exclusively through the mediator: the literature reviewed in Section 2.3 links AI-advisory influence most consistently to trust-related and risk-perception outcomes rather than to adoption directly, so the present framework treats this relationship as fully mediated rather than proposing an additional, direct AI-to-adoption path. Researchers extending this model empirically may wish to test that direct path explicitly, as a supplementary hypothesis, once initial results are available.

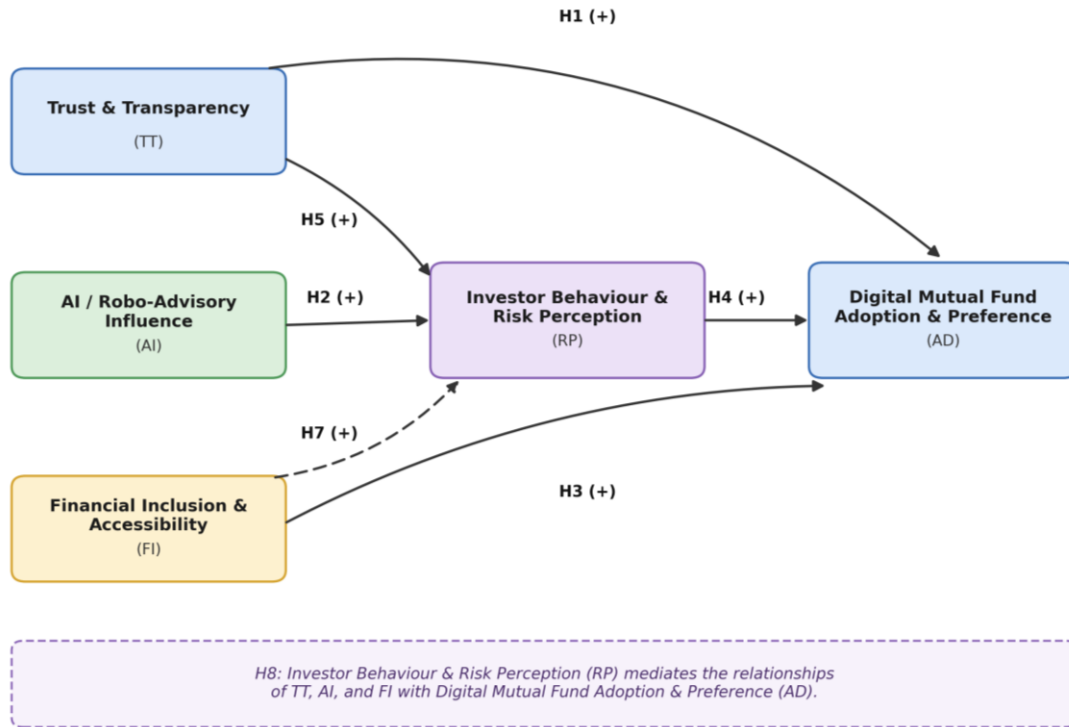


Figure 1. Proposed conceptual framework linking Trust & Transparency (TT), AI/Robo-Advisory Influence (AI), and Financial Inclusion & Accessibility (FI) to Digital Mutual Fund Adoption & Preference (AD) through the mediating role of Investor Behaviour & Risk Perception (RP)

Table 1: Summarises the Eight Hypotheses that Follow from this Structure, Numbered to Match the Construct Relationships Shown In Figure 1

Hyp.	Proposed relationship	Nature
H1	Trust & Transparency (TT) → Digital Mutual Fund Adoption & Preference (AD)	Direct, positive
H2	AI / Robo-Advisory Influence (AI) → Investor Behaviour & Risk Perception (RP)	Direct, positive
H3	Financial Inclusion & Accessibility (FI) → Digital Mutual Fund Adoption & Preference (AD)	Direct, positive
H4	Investor Behaviour & Risk Perception (RP) → Digital Mutual Fund Adoption & Preference (AD)	Direct, positive
H5	Trust & Transparency (TT) → Investor Behaviour & Risk Perception (RP)	Direct, positive
H7	Financial Inclusion & Accessibility (FI) → Investor Behaviour & Risk Perception (RP)	Direct, positive (tentative)
H8	RP mediates the TT–AD, AI–AD, and FI–AD relationships	Mediation

Source: Table 1. Summary of hypothesised relationships.

Two features of this structure merit emphasis. First, the framework distinguishes between fully mediated and partially mediated pathways rather than assuming uniform mediation across all three antecedents, a distinction that mirrors the differing strength of evidence reviewed for each construct in Section 2. Second, Financial Inclusion and Accessibility's path to the mediator, H7, is treated as the most tentative relationship in the model, consistent with the comparatively mixed evidence on whether accessibility alone shapes investor psychology or requires complementary trust and literacy to do so (Kamble et al., 2024; Mishra et al., 2024). This tentativeness does not weaken the framework; rather, it identifies H7 as the relationship most in need of empirical scrutiny, and one where a null or weak result would itself be theoretically informative.

V. PROPOSED METHODOLOGY FOR EMPIRICAL VALIDATION

As a conceptual paper, this study does not collect or analyse primary data; it instead specifies a methodology through which the proposed framework can be empirically validated in the next phase of this research programme. Consistent with the great majority of the fintech- and robo-advisory-adoption studies reviewed above, a quantitative, cross-sectional survey design

is proposed, administered to individuals who have used at least one digital mutual fund platform, whether a direct asset-management-company application, an aggregator platform, or a robo-advisory service operating in India.

Given the framework's combination of established and comparatively novel construct relationships, and consistent with recent Indian fintech-adoption research using the same analytical approach, Partial Least Squares Structural Equation Modelling (PLS-SEM) is proposed as the primary analytical technique (Fatima & Chakraborty, 2024; Guo & Waked, 2026; Nair et al., 2023). PLS-SEM is well suited to this framework's exploratory elements, its comparatively complex mediation structure, and the likelihood that some constructs, particularly AI/Robo-Advisory Influence and Financial Inclusion and Accessibility, will need to be operationalised with newly adapted indicators. Measurement items for each construct should, where possible, be adapted from previously validated scales: trust and transparency items from established organisational- and technology-trust instruments (Mayer et al., 1995; McKnight et al., 2011; Panakaje et al., 2026), AI/robo-advisory items from robo-advisory-adoption studies conducted in comparable Indian and Asian contexts (Fatima & Chakraborty, 2024; Guo & Waked, 2026; Manrai & Gupta, 2023), accessibility items from digital-financial-literacy and inclusion research (Mishra et al., 2024; Ravikumar et al., 2022), and risk-perception items grounded in behavioural-finance measures derived from Prospect Theory (Kahneman & Tversky, 1979).

Purposive or convenience sampling of digital mutual fund users, stratified where feasible across metropolitan, tier-two, and tier-three locations, is recommended given the difficulty of obtaining a complete sampling frame of digital investors, a limitation shared by comparable published studies in this domain. A sample size sufficient to satisfy PLS-SEM's rule-of-thumb power requirements for the most complex structural path in the model, and ideally exceeding 350–450 respondents to match the scale of the most robust studies reviewed in Section 2, is recommended.

The mediation hypothesis, H8, should be tested using bootstrapped indirect-effect estimation rather than the original causal-steps approach alone, following current best practice in mediation analysis (Hayes, 2017), while retaining Baron and Kenny's (1986) logic as a useful conceptual starting point for establishing that each individual path in the mediation chain, antecedent to mediator, and mediator to outcome, is itself significant before indirect effects are interpreted.

VI. THEORETICAL CONTRIBUTIONS

This framework offers three principal contributions to the literature. First, it extends fintech-adoption theory into a specific, currently underexamined context: mutual fund investing, as distinct from the payments, lending, and general trading-app contexts that dominate existing Indian fintech-adoption research (Nair et al., 2023; Savitha et al., 2022). Mutual funds carry distinct risk, time-horizon, and trust characteristics relative to payments or short-term trading, and a framework built specifically around this context addresses a gap left open by research designed primarily around transactional fintech.

Second, the framework integrates three literatures- technology acceptance, organisational and technology trust, and behavioural finance- that are frequently studied in isolation. Robo-advisory research has tended to draw primarily on UTAUT and trust theory (Guo & Waked, 2026; Singh & Kumar, 2025); accessibility and inclusion research has drawn primarily on financial-literacy and development perspectives (Kamble et al., 2024; Ravikumar et al., 2022); and risk-perception research has drawn primarily on Prospect Theory and behavioural finance (Kahneman & Tversky, 1979). By combining all three within a single, testable structure, this paper offers a more complete account of how structurally and technologically distinct antecedents jointly shape an investment-adoption outcome.

Third, and most directly, the framework advances current mediation practice in fintech-adoption research by explicitly distinguishing between fully and partially mediated pathways, rather than treating investor behaviour and risk perception as either a uniform mediator for all antecedents or as a simple additional predictor. This distinction, and particularly the tentative status assigned to H7, gives future researchers a specific, falsifiable basis for refining the model rather than a general claim that “risk perception matters.”

VII. PRACTICAL AND POLICY IMPLICATIONS

For asset management companies and fintech distribution platforms, the framework's emphasis on Trust & Transparency suggests that investment in clear, comprehensible fee disclosure, transparent explanation of any algorithmic or AI-driven recommendation logic, and visible data-security practices is likely to influence adoption both directly and through improving investors' risk perception, a dual payoff that may justify greater investment in transparency-focused product design than platforms currently prioritise (Alalwan et al., 2024; Panakaje et al., 2026).

For robo-advisory and AI-driven advisory providers specifically, the algorithm-aversion literature reviewed in Section 2.3 implies that simply deploying more sophisticated algorithms is unlikely to be sufficient; providers should anticipate that trust in AI-driven advice is fragile following any visible error and should design explainability features, human-escalation options, and post-error recovery communication that address this fragility directly, rather than assuming algorithm appreciation will hold uniformly across their user base (Dietvorst et al., 2015; Logg et al., 2019; Verma et al., 2025).

For regulators, most directly the Securities and Exchange Board of India and the Association of Mutual Funds in India, the framework offers a behavioural rationale for continuing and monitoring sachetisation-style accessibility initiatives, while also cautioning that accessibility improvements alone, absent accompanying investor-education and trust-building measures, may not be sufficient to shift investor behaviour and risk perception, only to shift the headline adoption number (Kamble et al., 2024; Mishra et al., 2024; Securities and Exchange Board of India, 2025). This suggests that investor-education campaigns accompanying low-ticket SIP products should be designed and evaluated as behavioural interventions in their own right, not merely as awareness exercises.

For policymakers pursuing the broader national financial-inclusion agenda, the framework reinforces the argument that digital financial inclusion should be evaluated not only through access metrics such as account ownership or folio counts, but through behavioural metrics that capture whether digitally included individuals actually convert access into sustained, confident investment behaviour (Reserve Bank of India, 2020).

VIII. LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

This paper's principal limitation is inherent to its conceptual design: the framework and its eight hypotheses have not yet been empirically tested, and the relationships proposed, while grounded in the reviewed literature, remain propositions rather than findings. The next phase of this doctoral research is intended to address this directly through the empirical validation strategy outlined in Section 5.

Second, the framework is deliberately specified for the Indian mutual fund context, drawing heavily on India-specific regulatory initiatives and empirical studies. While this specificity is a strength for the intended research setting, it limits the framework's direct generalisability to other emerging markets or to other investment products, such as direct equities or alternative investment funds, without adaptation.

Third, the model as specified does not include individual-difference moderators, such as age, gender, income, financial literacy, or urban-rural residence, that the literature reviewed in Section 2 suggests may condition several of the proposed relationships, gender gaps in digital financial literacy and fintech usage being a particularly well-documented example (Mishra et al., 2024). Incorporating one or more of these as moderators is a natural extension once the base model has been validated.

Fourth, as discussed in Section 4, the framework treats AI/Robo-Advisory Influence as operating on adoption exclusively through the mediator, without a direct AI-to-adoption path. This is a theoretically justified simplification rather than an oversight, but future iterations of the model should explicitly test a direct path, since evidence suggests AI-driven convenience features can influence adoption independent of their effect on trust or risk perception (D'Acunto et al., 2019).

Finally, both artificial intelligence in financial advisory and India's regulatory approach to retail investment accessibility are evolving rapidly. Findings based on the platforms, products, and regulatory settings current at the time of empirical validation should be interpreted as reflecting that specific period, and the framework itself may require periodic revision as generative and more autonomous forms of AI advisory become more widely available to Indian retail investors.

IX. CONCLUSION

India's mutual fund industry has grown into a multi-trillion-rupee sector still reaching only a fraction of its potential investor base, prompting a wave of regulatory and industry innovation aimed at accessibility, from sachetised systematic investment plans to AI-driven robo-advisory tools. This paper has argued that understanding whether these innovations succeed requires looking beyond access metrics to the psychological mechanisms, investor behaviour and risk perception through which trust, artificial intelligence, and accessibility are converted into an actual decision to adopt and prefer a digital mutual fund platform. Drawing on technology-acceptance theory, organisational and technology trust theory, and behavioural finance, this paper has proposed and justified an integrated conceptual framework comprising seven directional hypotheses and one mediation hypothesis, and has outlined a PLS-SEM-based methodology through which the framework can be empirically tested. If supported, the framework would offer both a theoretical extension of fintech-adoption research into the mutual fund context and a practical, behaviourally grounded basis for asset managers, robo-advisory providers, and regulators seeking to convert India's digital financial inclusion gains into durable investment behaviour. The empirical validation of this framework forms the next stage of the author's doctoral research programme.

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