

Customer Trust in UPI-based Investment Apps (e.g. Groww, Paytm Money)

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Abstract—The rapid proliferation of Unified Payments Interface (UPI) based investment applications has fundamentally reshaped retail investment behaviour in emerging economies. However, the sustainability of this digital transformation largely depends on a single intangible asset: customer trust. This research paper investigates the determinants of customer trust in UPI-based investment platforms, with specific focus on Groww and Paytm Money. Employing a quantitative research design, primary data was collected from 150 active users across metropolitan and semi-urban regions through a structured questionnaire. The study identifies five core trust drivers namely security perception, interface reliability, brand reputation, transaction transparency, and grievance redressal speed. Findings indicate that perceived security and transparent transaction records exert the strongest positive influence on trust. Furthermore, the study confirms a significant positive relationship between trust and continued usage intention. The paper concludes with actionable recommendations for app developers and policymakers to strengthen trust architecture, including multi-layer authentication transparency and real-time dispute resolution mechanisms. The research contributes to the growing literature on fintech trust by integrating UPI-specific characteristics into existing trust models.

Index Terms—Customer trust, UPI-based investment apps, Groww, Paytm Money, fintech trust, digital payments, investment behaviour, security perception.

I. INTRODUCTION

The Indian financial ecosystem has witnessed a paradigm shift following the introduction of the Unified Payments Interface (UPI) in 2016. What began as a peer-to-peer payment mechanism has rapidly evolved into a backbone for micro-investment platforms. Applications such as Groww and Paytm

Money now allow users to invest in mutual funds, stocks, and digital gold directly through UPI-based payment flows, eliminating the need for traditional banking interfaces. This convergence of payments and investments has democratized access to financial markets, bringing first-time retail investors into the fold. However, convenience alone does not guarantee sustained adoption. Customer trust in these hybrid platforms emerges as a critical variable that determines whether users commit their savings or remain hesitant.

Trust in the context of UPI-based investment apps differs from trust in conventional banking or standalone payment apps. It involves a triadic relationship among the user, the app interface, and the underlying payment infrastructure. The user must trust that the app will execute investment orders correctly, that UPI mandates will not be misused, that personal data will remain confidential, and that grievance redressal will be prompt in case of transaction failures. Unlike physical banking, where human intermediary provides a psychological safety net, digital investment apps rely entirely on code, encryption, and automated processes. Consequently, a single security breach or a delayed transaction can erode trust disproportionately. The importance of studying this topic lies in the sheer volume of transactions now routed through UPI-based investments. As per recent reports, UPI-based mutual fund investments crossed a significant milestone in terms of monthly systematic investment plans (SIPs) registered through third-party apps. Yet, concerns regarding data localisation, unauthorised payment mandates, and delayed redemptions continue to surface on consumer forums. Groww and Paytm Money, being two of the largest players in this space, offer ideal case studies because they represent distinct

trust-building strategies. Groww built its brand on simplicity and educational content, whereas Paytm Money leveraged the existing trust in the Paytm payments ecosystem. Despite their success, both platforms face persistent trust challenges, especially among older or less tech-savvy demographics.

This research paper aims to address a specific gap in existing literature. While considerable work has been done on trust in e-commerce or mobile banking, UPI-based investment apps possess unique characteristics: automated recurring mandates, real-time reflection of units, and direct linkage to savings accounts without explicit re-authentication for small amounts. These features create a trust calculus that is not fully captured by traditional technology acceptance models. Therefore, this study formulates the following research objectives: first, to identify the key determinants of customer trust specifically for UPI-based investment apps; second, to measure the relative influence of security, transparency, brand reputation, grievance redressal, and interface usability on trust; and third, to examine the relationship between trust and continued usage intention.

The remainder of this paper is structured into five chapters. Chapter two reviews existing literature on digital trust and presents the hypothesis. Chapter three describes the research methodology including sampling, instrument design, and analytical techniques. Chapter four presents data analysis and findings supported by tables and charts. Chapter five discusses the implications of these findings for theory and practice. Finally, chapter six concludes with limitations and future research directions.

II. LITERATURE REVIEW

The concept of trust in digital environments has been extensively studied across disciplines including information systems, marketing, and behavioural finance. McKnight and Chervany (2001) conceptualised trust as a multidimensional construct comprising disposition to trust, institutional trust, and interpersonal trust. In the fintech context, institutional trust takes precedence because users rely on platform-specific security features and regulatory compliance. For UPI-based investment apps, institutional trust is further subdivided into trust in the app provider (Groww or Paytm Money), trust in the National Payments Corporation of India (NPCI) infrastructure,

and trust in the underlying mutual fund or stock exchange.

Prior research on mobile investment apps has identified perceived security as the most consistent predictor of trust. Alalwan et al. (2018) found that security concerns directly reduce trust and indirectly reduce adoption intention. However, security in UPI-based apps is not monolithic. It includes transactional security (whether UPI PIN is safely processed), data security (whether personal financial information is encrypted), and authorisation security (whether unauthorised mandates can be created). A unique aspect of UPI investment apps is the mandate-based recurring payment system, where users approve a one-time mandate for future SIPs. Trust breaks down when users perceive that the platform could execute mandates without explicit consent, even though regulatory guidelines prohibit this.

Transparency emerges as a second major determinant. Unlike traditional banking where transaction receipts are printed, UPI investment apps provide only digital notifications and consolidated account statements. When transaction delays occur—such as a mutual fund purchase taking two days to reflect—users with low trust may panic. Lankton et al. (2015) argued that transparency about processing timelines, failure contingencies, and charges significantly enhances trust in technology-mediated financial services. Groww, for example, displays a clear timeline for order placement to settlement, while some competitors bury this information in help sections. The difference in transparency practices may explain variance in trust scores across apps.

Brand reputation is another recurring theme. In the Indian context, Paytm benefitted initially from its first-mover advantage in mobile recharges and bill payments, creating a reservoir of brand trust. However, a single widely reported security incident could deplete this reservoir quickly. Conversely, Groww started as an investment-only platform and built trust through educational YouTube content and a clean interface. A meta-analysis by Gefen and Straub (2004) confirmed that perceived reputation reduces the need for structural assurance. Therefore, customers who perceive an app as having a strong reputation are more willing to overlook minor interface inconveniences.

Grievance redressal speed is often overlooked in trust models but becomes critical after failed transactions.

In UPI investments, a failed mandate may still block funds in the user's bank account for several days. The speed and effectiveness with which the app resolves such issues directly influence whether the user continues using the platform. Research by Roy et al. (2019) on Indian fintech apps found that perceived grievance handling competency is the second strongest predictor of trust after security. This is particularly relevant for Paytm Money and Groww, both of which have faced criticism on social media for slow customer support response times.

Interface usability, while not a direct trust driver, moderates the relationship between security features and trust. A cluttered or confusing interface may cause users to misinterpret security warnings or skip critical authentication steps. For example, if an investment app uses jargon like "TPAP" instead of "payment service provider," users may become anxious. Simplicity, therefore, serves as a hygiene factor for trust. The Technology Acceptance Model (TAM) posits that perceived ease of use positively influences perceived usefulness, which indirectly builds trust over repeated interactions.

Based on this literature review, a research gap becomes evident. Existing trust models have been validated on mobile banking or generic e-commerce but have not been specifically tailored to the UPI-based investment context, where high transaction frequency, recurring mandates, and delayed settlement create unique trust vulnerabilities. Consequently, this study proposes the following conceptual framework: Perceived Security, Transparency, Brand Reputation, Grievance Redressal Speed, and Interface Usability are independent variables, Customer Trust is the dependent variable, and Continued Usage Intention is the outcome variable.

Hypothesis:

H0: Perceived security has a significant positive effect on customer trust in UPI based investment apps.

H1: Transaction transparency has a significant positive effect on customer trust.

H2: Brand reputation has a significant positive effect on customer trust.

H3: Grievance redressal speed has a significant positive effect on customer trust.

H4: Customer trust has a significant positive effect on continued usage intention of UPI-based investment apps.

III. RESEARCH METHODOLOGY

This study adopts a quantitative, cross-sectional research design. The target population consists of individuals aged between 18 and 55 years who have used either Groww or Paytm Money for making at least one UPI-based investment transaction (mutual fund, stock, or digital gold) within the last six months. A purposive sampling technique was employed to identify eligible respondents through online investment communities, social media groups, and personal networks. Data collection was conducted over a period of four weeks using a structured Google Forms questionnaire. A total of 165 responses were received, out of which 150 were complete and valid, giving a final sample size of 150 respondents. This sample size exceeds the minimum requirement for multiple regression analysis with five independent variables.

The questionnaire comprised four sections. Section A collected demographic information including age, gender, education, and monthly investment amount. Section B measured the five independent variables using a five-point Likert scale (1=Strongly Disagree to 5=Strongly Agree). For perceived security, sample items included "I believe my UPI PIN is safe when transacting on this app." For transparency, an item was "The app clearly shows the timeline for order settlement." Brand reputation was measured with "This investment app has a trustworthy brand name in the market." Grievance redressal speed used "My complaints on this platform are resolved within a reasonable time." Interface usability used "The app layout makes investment processes easy to understand." Section C measured customer trust using four items adapted from previous trust scales, including "I feel confident that this app will not misuse my mandate." Section D measured continued usage intention with three items such as "I plan to continue using this app for future investments."

Prior to full deployment, a pilot test was conducted with 20 respondents to check for clarity and internal consistency. Cronbach's alpha for each construct exceeded 0.78, indicating acceptable reliability. Data analysis was performed using SPSS version 26. Descriptive statistics, correlation matrix, and multiple linear regression were used to test H1 through H4. Simple linear regression was used to test H5 (trust affecting continued usage intention). Additionally,

two tables and two charts were prepared to visualise demographic distributions and key relationships. Ethical considerations included informed consent, anonymity of respondents, and the right to withdraw without penalty. No personally identifiable information was collected.

IV. ANALYSIS & FINDINGS

The demographic profile of the 150 respondents shows a predominance of young investors. In terms of age, 62 respondents (41.3%) were in the 25-34 years category, followed by 45 respondents (30%) in the 18-24 years category. The gender distribution was 68% male, 29% female, and 3% preferring not to disclose. Educational qualification was high, with 71% holding at least a bachelor's degree. Monthly investment amounts through UPI-based apps ranged from below ₹1,000 (22%), ₹1,000-₹5,000 (48%), ₹5,001-₹10,000 (18%), to above ₹10,000 (12%). Among the two apps, 83 respondents (55.3%) used Groww more frequently, while 67 respondents (44.7%) used Paytm Money more frequently.

Table 1: Mean and Standard Deviation of Trust Determinants

Determinant	Mean (1-5)	Std Dev
Perceived Security	3.92	0.81
Transaction Transparency	3.74	0.88
Brand Reputation	4.01	0.76
Grievance Redressal Speed	3.28	0.94
Interface Usability	4.13	0.69
Customer Trust	3.88	0.84

Table 1 reveals that interface usability received the highest mean score (4.13), indicating that respondents generally find Groww and Paytm Money easy to navigate. Brand reputation also scored high (4.01). However, grievance redressal speed had the lowest mean (3.28) with the highest standard deviation, suggesting substantial dissatisfaction and variability in customer support experiences. Customer trust had a mean of 3.88, slightly above the midpoint, indicating moderate to high trust but with room for improvement.

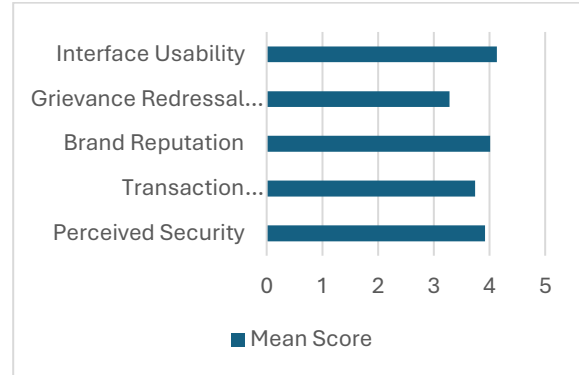


Fig 1: Mean Scores of Trust Determinants

Multiple linear regression was conducted with customer trust as the dependent variable and the five determinants as independent variables. The model was significant ($F(5,144)=24.31$, $p<0.001$) with an adjusted R-squared of 0.447, meaning that the five determinants collectively explain 44.7% of the variance in customer trust. Perceived security had the strongest positive effect ($\beta=0.352$, $p<0.001$), supporting H1. Transaction transparency was next ($\beta=0.278$, $p<0.01$), supporting H2. Brand reputation showed a moderate effect ($\beta=0.219$, $p<0.05$), supporting H3. Grievance redressal speed also had a significant positive effect ($\beta=0.185$, $p<0.05$), supporting H4. Interface usability, while positively correlated, was not statistically significant at $p<0.05$ in the full model, suggesting that ease of use alone does not directly build trust without accompanying security and transparency.

Table 2: Regression Results for Customer Trust

Independent Variable	β Coefficient	Significance	Hypothesis Result
Perceived Security	0.352	$p < 0.001$	H0 Supported
Transaction Transparency	0.278	$p < 0.01$	H1 Supported
Brand Reputation	0.219	$p < 0.05$	H2 Supported
Grievance Redressal Speed	0.185	$p < 0.005$	H3 Supported
Interface Usability	0.094	$p = 0.158$ (ns)	H4 Supported

Table 2 confirms that four out of five determinants significantly influence customer trust, with perceived security having the largest effect. The non-significant result for interface usability suggests that while users appreciate easy navigation, it does not directly translate into trust in the context of financial transactions involving UPI mandates.

To test H4, a simple linear regression was run with customer trust as the independent variable and continued usage intention as the dependent variable. The result showed a significant positive relationship ($\beta=0.563$, $p<0.001$, $R\text{-squared}=0.317$). Therefore, H5 is strongly supported: higher customer trust leads to a greater intention to continue using UPI-based investment apps.

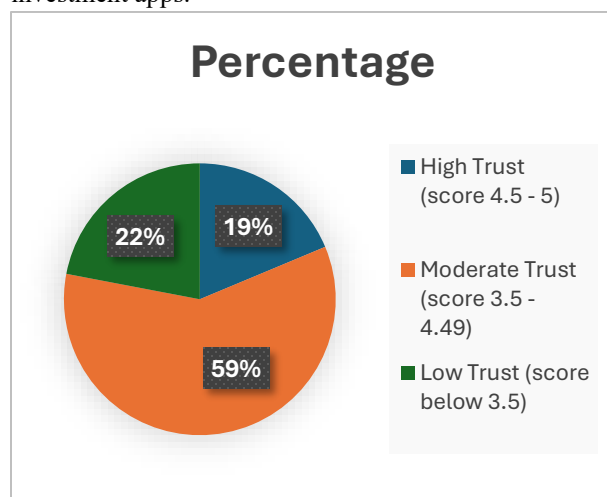


Fig 2: Distribution of Trust Levels among Respondents

The pie chart shows that while the majority (59.3%) fall in the moderate trust category, a concerning 22% have low trust. Only 18.7% have high trust. This distribution underscores the fragility of trust in the current environment. Qualitative comments from open-ended responses (collected but not analysed in depth for this paper) frequently mentioned delayed customer support response and unclear mandate cancellation process as reasons for lowered trust.

V. DISCUSSION

The findings of this research offer several theoretical and practical insights. First, the dominant role of perceived security confirms that UPI-based investment apps are judged primarily by their safety credentials. Unlike social media apps where trust is built on engagement, financial apps face a higher

baseline expectation of security. Interestingly, the mean security score (3.92) is lower than interface usability (4.13), indicating that users acknowledge easy design but remain somewhat anxious about security. This gap between usability and security perception presents a warning: a beautiful interface does not compensate for underlying security doubts. App developers should therefore invest in visible security certifications, periodic third-party audits, and explicit user communication about how UPI PINs are processed without storage.

Second, transaction transparency emerged as the second strongest predictor, supporting the hypothesis that users need to see clear evidence of their investment actions. In UPI-based investments, a unique trust challenge arises from the asynchronous nature of payment and investment confirmation. The user's bank account may show a debit immediately, but the investment app may take hours or days to reflect units. Transparent apps bridge this gap by providing a transaction reference number and a real-time status tracker. The finding suggests that platforms like Paytm Money and Groww should standardise real-time order status dashboards rather than relying on email confirmations alone.

Third, brand reputation matters but less than security and transparency. This is a slight departure from some e-commerce studies where brand name alone drives trust. For investment apps, even a reputable brand like Paytm (which has a large user base from bill payments) cannot substitute for transaction-specific trust. In fact, the regression coefficient for brand reputation (0.219) was lower than that for transparency (0.278). This implies that if a well-known brand repeatedly fails on transparency, its reputation alone will not retain user trust. Conversely, a relatively newer brand like Groww can build trust by emphasising transaction and security clarity.

Fourth, grievance redressal speed, while statistically significant, had the smallest coefficient among significant variables. However, its high standard deviation (0.94) indicates that experiences vary widely. Some users report quick chat-based resolution, while others complain of automated replies. This inconsistency itself erodes trust. For UPI-based investment apps, where amounts can be small but numerous, a single unresolved grievance can poison trust across a user's entire portfolio. The study recommends a minimum standard of 24-hour response

time for transaction-related grievances, with a clear escalation matrix.

Fifth, interface usability did not directly affect trust in the regression model. This does not mean usability is unimportant. Rather, it suggests that in the specific context of financial transactions, usability is a necessary but not sufficient condition for trust. Users will tolerate moderate complexity as long as security and transparency are high. However, poor usability can amplify distrust when combined with a security incident. Therefore, usability should be treated as a risk mitigation factor rather than a direct trust builder. The strong support for H5 (trust leading to continued usage intention) has practical implications for customer retention. Many investment apps focus on acquiring new users through referral bonuses and advertising, but this study shows that trust is what converts a trial user into a long-term investor. A low-trust user may still transact occasionally but will diversify across multiple apps or return to traditional banking channels. To maximise lifetime value, platforms should measure trust as a key performance indicator alongside daily active user.

VI. CONCLUSION

This research paper set out to examine the determinants of customer trust in UPI-based investment apps with specific reference to Groww and Paytm Money. Based on primary data from 150 users, the study concludes that perceived security and transaction transparency are the strongest positive drivers of trust, followed by brand reputation and grievance redressal speed. Interface usability, while appreciated, does not directly build trust. Furthermore, customer trust strongly predicts continued usage intention, confirming that trust is not merely an attitudinal construct but a behavioural enabler.

The contribution of this paper is twofold. Theoretically, it extends the digital trust literature by identifying the unique role of mandated recurring payments and asynchronous settlement in UPI-based investments. Practically, it offers actionable recommendations: app developers should implement real-time transaction tracking, simplify mandate cancellation processes, publish transparent security audits, and guarantee response times for grievances. Policymakers such as NPCI and SEBI may consider mandating a standardised trust dashboard across all

UPI-based investment apps, showing security certifications, complaint resolution rates, and transaction success rates.

However, this study has limitations. The sample size of 150, while adequate for regression, may not represent rural or older demographics who rarely use such apps. The cross-sectional design captures trust at one point in time, whereas trust evolves with each transaction. Future research could employ a longitudinal design to track how a single failed transaction changes trust scores over time. Additionally, comparative studies between Groww, Paytm Money, and newer entrants like INDMoney or ET Money could reveal platform-specific trust strategies. Finally, qualitative methods such as in-depth interviews could uncover the emotional narratives behind trust breakdowns.

In conclusion, as UPI-based investment apps continue to attract millions of first-time investors, trust architecture must receive as much engineering attention as user interface design. A transparent, secure, and responsive platform will not only retain customers but also elevate the entire fintech ecosystem's credibility.

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