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A Study on the Impact of AI-Powered Investment Apps on Investment Decisions among Young Investors in Chennai City

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ABSTRACT:

This study examines how features of AI-powered investment apps (usability, alerts, relevance, trust and personalization) influence the investment decisions of young investors in Chennai City, how these features relate to perceived financial literacy, and whether demographic factors are associated with usage frequency. A descriptive research design was adopted and primary data were collected through a structured questionnaire administered via Google Forms. Using convenience sampling, 65 valid responses were obtained from young investors who use AI-powered investment apps, and opinion statements were measured on a five-point Likert scale. Percentage analysis, descriptive statistics, multiple regression, Pearson correlation and chi-square tests were applied. The regression model ($R^2 = 0.83$, $F(5, 59) = 57.38$, $p < 0.001$) showed that usability ($\beta = 0.20$, $p = 0.014$), alerts ($\beta = 0.22$, $p = 0.020$) and trust ($\beta = 0.31$, $p = 0.004$) were significant predictors of investment decisions, with trust the strongest; relevance and personalization were not significant at the 5% level. All five features were positively and significantly correlated with perceived financial literacy, personalization being the strongest ($r = 0.781$, $p < 0.001$). Age, gender, occupation, monthly income and marital status showed no significant association with usage frequency (all $p > 0.05$). The study recommends transparent explanation of AI recommendations, simple interfaces, customisable alerts, clear risk disclosure and in-app investor education.

Keywords: AI-powered investment apps, investment decisions, young investors, trust, personalization, financial literacy, Chennai

Introduction:

Digital Investment Apps

Mobile applications have changed how individual investors obtain market information, track portfolios and place orders. Young investors in particular are comfortable managing their investments through smartphones, and apps such as Groww, Zerodha Kite, Upstox, Paytm Money and INDmoney have made investing more accessible.

AI-Powered Investment Apps

Artificial intelligence (AI) has extended the capabilities of these apps. They can generate personalised recommendations, send real-time alerts, present analytics and simplify information so that users can compare investment options. These features may influence not only which products investors select, but also how often they invest, how much risk they accept and how confident they feel.

Problem Statement

Young investors are increasingly dependent on app-generated suggestions, and many of them are new to investing. It is therefore important to understand which app features actually relate to their investment decisions, and whether the same features are associated with greater financial understanding. Existing studies concentrate on adoption intention, with less attention to individual app features and to a specific city context. This study examines these questions for young investors in Chennai City.

Relevance and Significance of the Study

The findings can help app providers design more trustworthy and usable features, help educators and regulators understand the risks faced by new investors, and add to the limited evidence on AI-powered investment apps among young Indian investors.

Review of Literature:

Technology-acceptance research is the main lens through which AI-based investment services have been studied. Technology -acceptance research is largely built on the Unified Theory of Acceptance and Use of Technology (UTAUT), which explains technology use through performance expectancy, effort expectancy, social influence and facilitating conditions (Venkatesh et al., 2003). Bihari et al. (2026), using data from 365 respondents, report that perceived usefulness, ease of use and performance expectancy support acceptance of AI-powered robo-advisors, and that financial knowledge

moderates these relationships. Banerjee (2025), studying 387 Indian retail investors, found technology readiness and financial literacy to be the strongest predictors of intention to adopt robo-advisory services.

Padhiyar and Raval (2026), surveying 78 millennials, found that financial knowledge and trust influenced willingness to adopt, whereas perceived usability did not. Akram et al. (2026) link trust, technology self-efficacy, perceived risk and financial literacy to intention to use robo-advisors, and report that this intention significantly influences investment decision-making.

Other studies focus on younger users. Germann and Merkle (2023) found no strong preference for human over algorithmic managers among young adults, who were mainly concerned with returns. Figà-Talamanca et al. (2022) examined whether gender and generation matter for robo-advisor acceptance, and Isaia and Oggero (2022) examined the potential use of robo-advisors among the young generation in Italy. Fatima and Chakraborty (2024) studied the adoption of AI in financial services through robo-advisors in India, and Pusposari et al. (2024) examined the determinants of students' intentions to use AI-based mobile investment apps.

Research gap: Existing studies establish that trust, ease of use and financial literacy affect the adoption of AI-based investment services, mostly through acceptance-model frameworks. However, few studies test how individual app features (usability, alerts, relevance, trust and personalization) jointly relate to the investment decisions of young investors, or to their perceived financial literacy, in the Chennai City context. The research gap therefore involves extending the UTAUT to the current sample: young investors in Chennai City who use AI-powered investment apps.

Methodology:

This study uses primary data collected through a structured questionnaire distributed via Google Forms, with convenience sampling (a non-probability technique) used to select 65 valid respondents who are young investors in Chennai City and use AI-powered investment apps. All respondents reported using such an app. Secondary information for the conceptual and literature review was drawn from published studies. The research follows a descriptive, cross-sectional design. Young investors are defined as respondents aged 18–32 years. The questionnaire contained demographic questions, questions on investment and app-use behaviour, and 17 opinion statements (PS1–PS17) measured on a five-point Likert scale: 1 – Strongly Disagree, 2 – Disagree, 3 – Neutral, 4 – Agree and 5 – Strongly Agree.

The independent variables were Usability (PS1–PS2), Alerts (PS3), Relevance (PS4), Trust (PS5–PS6) and Personalization (PS7–PS8). The dependent variable, Investment Decision, was formed from PS9–PS16, and perceived financial literacy was measured by PS17. Percentage analysis, descriptive statistics, multiple regression (features and investment decision), Pearson correlation (features and financial literacy) and the chi-square test (demographic factors and usage frequency) were used, with significance tested at the 5% level in SPSS. The highest variance inflation factor (VIF) was 4.60 (personalization), below the usual cut-off of 5.

Objectives:

Primary objective: To study the impact of AI-powered investment apps on investment decisions among young investors in Chennai City.

Secondary objectives:

- To identify the key features of AI-powered investment apps that influence young investors' investment decisions.
- To examine the role of AI-powered investment apps in enhancing the financial literacy and investment knowledge of young investors.
- To examine the association between demographic factors and the usage frequency of AI-powered investment apps.

Data Analysis and Interpretation

1. PERCENTAGE ANALYSIS – DEMOGRAPHIC PROFILE (N = 65)

Table 1. Respondent profile and app usage

Variable	Key result
Age	18–22 years 60.0%; 23–27 years 30.8%; 28–32 years 9.2%
Gender	Female 64.6%; Male 35.4%
Occupation	Students 50.8%; salaried employees 33.8%; others 15.4%
Monthly income	Below ₹20,000 55.4%; ₹20,000–30,000 21.5%; above ₹50,000 10.8%
Marital status	Single 81.5%; Married 18.5%
Investment experience	Less than 1 year 66.2%; 1–3 years 18.5%; 3–5 years 10.8%; over 5 years 4.6%
Variable	Key result
Currently invests in financial instruments	Yes 80.0%; No 20.0%
App used	Groww 46.2%; Paytm Money 18.5%; Zerodha Kite 13.8%; Upstox 12.3%; INDmoney 9.2%
Usage frequency	Weekly 33.8%; Monthly 27.7%; Daily 23.1%; Rarely 15.4%

Inference: The sample is young, predominantly female, largely student and low-income, and relatively new to investing. Groww is the most used app, and about 57% use their app daily or weekly.

2. PERCENTAGE ANALYSIS – OPINION STATEMENTS

Table 2. Means, standard deviations and agreement for opinion statements (N = 65)

Item	Statement (short)	Mean	SD	% Agree/Strongly agree
PS1	Interface is easy to navigate	3.69	1.29	69.2
PS2	Transactions without difficulty	3.62	1.04	61.5
PS3	Real-time alerts help me act	3.66	1.24	69.2
PS4	Suggestions relevant to my goals	3.49	1.21	61.5
PS5	I trust AI recommendations	3.55	1.28	63.1
PS6	AI as objective as a human advisor	3.51	1.16	55.4
PS7	Personalised recommendations influence choices	3.65	1.26	66.2
PS8	Suggestions tailored to goals and risk appetite	3.60	1.18	63.1
PS9	I select products differently now	3.71	1.21	67.7
PS10	Final choices shaped by app recommendations	3.65	1.23	70.8
PS11	Greater willingness to take risks	3.66	1.20	63.1
PS12	Invest in higher-risk instruments more often	3.57	1.24	63.1
PS13	More confident about calculated risks	3.48	1.39	61.5
PS14	Investing frequency has increased	3.69	1.12	66.2
PS15	Intend to continue using the app	3.63	1.24	66.2
PS16	Overall decision quality has improved	3.62	1.16	61.5
PS17	I feel more financially literate	3.60	1.25	64.6

Inference: All statements have means between 3.48 and 3.71, showing moderately positive perceptions. Agreement is highest for the influence of app recommendations on final choices (70.8%), ease of navigation (69.2%) and usefulness of alerts (69.2%), and lowest for the objectivity of AI advice compared with a human advisor (55.4%). Between 10.8% and 24.6% of respondents chose the neutral option on each statement, and every statement has a visible disagree group, so views are not uniform.

3. MULTIPLE REGRESSION ANALYSIS – INVESTMENT DECISION

H0: There is no significant relationship between AI-powered investment app features and investment decisions among young investors.

H1: There is a significant relationship between AI-powered investment app features and investment decisions among young investors.

Table 3. Regression coefficients (dependent variable: investment decision)

Predictor	B	Beta	t	Sig.	Result
Usability	0.18	0.20	2.53	0.014	Significant
Alerts	0.17	0.22	2.40	0.020	Significant
Relevance	0.07	0.09	0.98	0.331	Not significant
Trust	0.28	0.31	3.01	0.004	Significant
Personalization	0.20	0.23	1.96	0.055	Not significant

$R^2 = 0.83$; Adjusted $R^2 = 0.81$; $F(5, 59) = 57.38$, $p < 0.001$.

Interpretation: The model is statistically significant, and the five features together explain 83% of the variation in investment decisions. Trust is the strongest significant predictor ($\beta = 0.31$, $p = 0.004$), followed by alerts ($\beta = 0.22$, $p = 0.020$) and usability ($\beta = 0.20$, $p = 0.014$), so H0 is rejected for these three. Relevance ($p = 0.331$) is not significant and personalization ($p = 0.055$) is marginally above the 5% level, so H0 is not rejected for them. The personalization result should be read cautiously because it had the highest VIF (4.60) and overlaps with the other features.

4. CORRELATION ANALYSIS – FEATURES AND FINANCIAL LITERACY

H0: There is no significant relationship between each AI-powered investment app feature and financial literacy. H1: There is a significant relationship between each AI-powered investment app feature and financial literacy.

Table 4. Pearson correlation between app features and perceived financial literacy (N = 65)

Feature	Pearson r	Sig. (2-tailed)	Result
Personalization	0.781	< 0.001	Significant
Usability	0.690	< 0.001	Significant
Trust	0.637	< 0.001	Significant
Alerts	0.608	< 0.001	Significant
Relevance	0.576	< 0.001	Significant

Interpretation: All five features have a positive and significant relationship with perceived financial literacy ($p < 0.001$), so H_0 is rejected for each. Personalization is the strongest ($r = 0.781$) and relevance the weakest ($r = 0.576$). Correlation does not establish cause and effect.

5. CHI-SQUARE TEST – DEMOGRAPHIC FACTORS AND USAGE FREQUENCY

H_0 : There is no significant association between demographic factors and the usage frequency of AI-powered investment apps.

H_1 : There is a significant association between demographic factors and the usage frequency of AI-powered investment apps.

Table 5. Chi-square test results (valid cases = 65)

Demographic factor	Pearson Chi-Square	df	Sig.	Result
Age	2.46	6	0.873	Not significant
Gender	5.59	3	0.133	Not significant
Occupation	12.44	12	0.411	Not significant
Monthly income	8.63	12	0.734	Not significant
Marital status	3.83	3	0.280	Not significant

Interpretation: All p-values exceed 0.05, so H_0 is not rejected for any factor. Several tables had cells with expected counts below 5; exact (Monte Carlo) tests gave the same conclusion.

6. SUMMARY OF HYPOTHESIS TESTING

Table 6. Hypothesis testing summary

Test	H_0	Result
Regression	No relationship between app features and investment decisions	Rejected for usability, alerts, trust; not rejected for relevance, personalization
Correlation	No relationship between app features and financial literacy	$p < 0.001$ for all five → Reject H_0
Chi-square	No association between demographics and usage frequency	All $p > 0.05$ → Fail to reject H_0

Results

The study analysed 65 valid responses. Respondents hold moderately positive perceptions of AI-powered investment apps, with 70.8% agreeing that app recommendations shape their final investment choices and 64.6% feeling more financially literate after using the apps. The regression model was significant ($R^2 = 0.83$, adjusted $R^2 = 0.81$, $F(5, 59)$

$= 57.38$, $p < 0.001$) and showed that trust ($\beta = 0.31$, $p = 0.004$), alerts ($\beta = 0.22$, $p = 0.020$) and usability ($\beta = 0.20$, p

$= 0.014$) significantly predict investment decisions, whereas relevance and personalization do not at the 5% level. The correlation analysis showed that all five features are positively and significantly related to perceived financial literacy, with personalization the strongest ($r = 0.781$). The chi-square tests showed that age, gender, occupation, monthly income and marital status are not significantly associated with usage frequency. Together, these results suggest that how much users trust an app, how easy it is to use and how useful its alerts are matter most for investment decisions, while usage frequency does not depend on who the user is. A majority also reported greater willingness to

take risks (63.1%) and more investing in higher-risk instruments (63.1%) since using the apps, which supports the need for clear risk disclosure.

Key findings

- Most respondents are aged 18–22 (60%), female (64.6%), students (50.8%) and earn below ₹20,000 a month (55.4%); two-thirds have under one year of investing experience.

- Groww is the most used app (46.2%), and weekly use is the most common frequency (33.8%).
- A majority agree that app recommendations influence their final choices (70.8%) and that they feel more financially literate after using the apps (64.6%).
- Usability, alerts and trust significantly predict investment decisions; trust is the strongest ($\beta = 0.31$, $p = 0.004$).
Relevance and personalization are not significant at the 5% level.
- All five features correlate positively and significantly with perceived financial literacy; personalization is strongest ($r = 0.781$) and relevance weakest ($r = 0.576$).
- Age, gender, occupation, monthly income and marital status are not significantly associated with usage frequency.

Discussion

This study extends the UTAUT (Venkatesh et al., 2003) to young investors in Chennai City who use AI-powered investment apps. Its contribution lies in testing which app features, beyond the original UTAUT constructs, relate to investment decisions.

Support for UTAUT. Usability ($\beta = 0.20$, $p = 0.014$) is comparable to effort expectancy, the ease associated with using a system, and alerts ($\beta = 0.22$, $p = 0.020$), which help users act on time, resemble performance expectancy, the belief that the system helps in performance. Both significantly predicted investment decisions, which is consistent with UTAUT. This agrees with Bihari et al. (2026), who reported that ease of use and usefulness support acceptance of AI-powered robo-advisors.

Extension of UTAUT. The model is extended in three ways. First, trust, which is not a core UTAUT construct, was the strongest predictor ($\beta = 0.31$, $p = 0.004$), which supports the view that AI-based advice requires trust in addition to usefulness and ease of use (Akram et al., 2026; Padhiyar & Raval, 2026). Second, the outcome here is actual investment decision-making (product choice, risk-taking, frequency and decision quality), rather than only intention to use. Third, the model was linked to perceived financial literacy, with all five features significantly correlated with it ($r = 0.576$ to 0.781), personalization being the strongest.

Points that differ from, or are not covered by, UTAUT. Relevance ($p = 0.331$) and personalization ($p = 0.055$) did not significantly predict investment decisions, which suggests their effects overlap with trust and usability (personalization had the highest VIF, 4.60). Padhiyar and Raval (2026) found usability to be insignificant, whereas it was significant here, possibly because of differences in sample and context. Age, gender, occupation, income and marital status were not associated with usage frequency, whereas UTAUT proposes that factors such as age and gender moderate acceptance; however, this was only tested through usage frequency and not through a moderation analysis. Social influence and facilitating conditions were not measured.

Overall, the findings partly support UTAUT and extend it by showing the importance of trust and by linking app features to both investment decisions and financial literacy. As the sample is small ($n = 65$) and drawn by convenience sampling, these results are indicative and should be confirmed with larger samples.

Conclusion

The study concludes that AI-powered investment apps are relevant to the investment decisions of young investors in Chennai City. Trust, usability and timely alerts significantly influence investment decisions, with trust the strongest predictor, and all five features studied are positively associated with perceived financial literacy, with personalization the strongest. Demographic factors do not explain how often the apps are used.

The study recommends that app providers explain how AI recommendations are generated, keep interfaces simple, allow users to customise alerts, deliver personalised educational content and communicate the risks of higher-risk products clearly. Young investors are advised to understand a recommendation before acting on it rather than following it blindly. Limitations include the small sample ($n = 65$), convenience sampling from one city, an over-representation of young, female, student and low-income respondents, self-reported opinions in a single survey (so findings show association, not causation), possible overlap between the items used for predictors and the outcome, and a single-item measure of financial literacy. Future research could use larger, probability-based samples from

several cities and validated multi-item scales. It could also extend the UTAUT further by adding social influence, facilitating conditions and perceived risk, and by testing age, gender and investing experience as moderators using structural equation modelling.

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