

Impact of Real-Time Trading Apps on Students' Investment Habits

Kiruthika L N

Student

CMS Business School, Jain (Deemed-to-be) University,
Bangalore, India
kiruthika_in24@cms.ac.in

Dr. Sarangapani Nivarthi

Associate Professor

CMS Business School, Jain (Deemed-to-be) University,
Bangalore, India
dr.sarangapani.nivarthi@cms.ac.in

Abstract

This study focuses on the effects of real time trading apps- Zerodha and Groww, on the investment behavior of Indian students. Based on a broad Unified Theory of Acceptance and Use of Technology (UTAUT) model, the Social Learning Theory and Nudge Theory and Choice Architecture, Human Capital and Financial Literacy Theory the study examines six variables, namely, Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, Use Behaviour, and Voluntariness of Use; and their impact on the dependent variable, Students Investment Habits. The structured quantitative methodology was embraced and the primary data were collected with the help of 131 valid respondents, which include undergraduate, postgraduate, and professional course students, and were questioned using a Google Form questionnaire in the period between February and March 2026. Reliability test showed a Cronbachs Alpha of 0.926, and the Kaiser Meyer Olkin test of sampling adequacy of 0.874, which indicated very good quality of the instrument. One-sample t-tests determined that all the seven-construct means were significantly higher than the neutral midpoint. Six directional hypotheses were tested using simple linear regression whose all hypotheses were accepted at $p = 0.001$. Influencing Use Behaviour, Voluntariness of Use was the most powerful predictor (0.6957, $R^2 = 0.483$), then Use Behaviour (0.7064, $R^2 = 0.363$), and finally Facilitating Conditions (0.5006, $R^2 = 0.376$). Groww was the most popular (56.5%), and it was an application that is easy to use. The results imply that the learners are cultivating disciplined and platform-based investment practices which are mostly intrinsically motivated and are habitually using the platforms. The research adds the empirical evidence to the literature on FinTech adoption and provides practical suggestions to platform developers, financial educators, and regulators, including SEBI.

Keywords: Real-Time, Trading Applications, Regulation, Investment Habits, Behaviour, Financial Technology (FinTech), Student Investors.

INTRODUCTION

There has been a consequential change regarding the relationship of the young Indians with money. To open a brokerage account, paper work, physical agent and not-so-trivial deposits would be needed before; now a student with a smartphone and Aadhaar can buy equities on groww or Zerodha within minutes. NSE and SEBI figures of post-pandemic indicate that the number of Demat account registrations in individuals aged below 25 has increased significantly. However, it is not necessarily that accessibility leads to good financial behaviour: the interface design features that get the highest linkage with impulse and emotionally based

decision-making are real-time tickers, one-tap order placement, and community leaderboards.

This has not been reflected in the academic literature. UTAUT-related studies of Indian fintech (Patil et al., 2020; Tak and Panwar, 2017) focuses on the adoption intent of adult users, which does not address whether adoption is correlated with disciplined investment behavior, and even among student investors, it may hold true that with age, they act differently than their older peers. The three objectives of this paper--to examine the effect of six UTAUT-based construct on investment behaviour among students who actively use either Zerodha or Groww, to determine

which construct has the highest explanatory value and to provide implications of the research on platform designers, university instructors, and regulators of the financial market, will fill that gap.

LITERATURE REVIEW

The UTAUT Framework in Financial Technology

Venkatesh et al. (2003) combined the eight competing adoption models into four constructs, Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), and Facilitating Conditions (FC), which explained much more than its competitors. Patil et al. (2020) established that the four constructs do account for much of the adoption variance in smartphone-native users in Indian fintech, whereas Chuang et al. (2016) established that a platform perceived as useful and easy to learn engages more permanently in the long run. Tak and Panwar (2017) expanded the model to the Indian mobile users through UTAUT2, including enjoyment and habitual use as significant predictors. Baabdullah et al. (2019) and Usman et al. (2022) both established that Facilitating Conditions, in both cases, the strongest direct impact on actual use behaviour, which places infrastructure as fundamental and not peripheral.

Intrinsic Motivation and Habit Formation

Self-Determination Theory (Deci and Ryan, 1985) is the theory which states that intrinsically motivated behaviours are more enduring and more addictive than extrinsically motivated involvement. This was validated by Moorthy et al. (2020) in a mobile investment context: users who were prompted to use apps themselves created a stronger and more stable relief compared to those who had to do so due to pressure

of those around them. Chaouali et al. (2021) came up with similar conclusions in mobile banking. Hamari and Koivisto (2015) provide a very significant qualification that gamified interfaces maintain engagement by reward cycles, yet that does not necessarily signify good financial judgment, something that directly applies to student users of trading sites.

Behavioural Finance and Student Investor Risks

According to Barber et al. (2020), the vast majority of individual day traders experience a steady decline in money, supported by the error of overconfidence and not the absence of talent, which Merkle (2017) supports with evidence that hindsight bias does not allow merging honest self-assessment even after a series of losses. This mechanism is especially dangerous to the students who process a profitable week in Zerodha as an indicator of investment competency. Van Rooij et al. (2011) and Bianchi (2018) identify financial literacy as one of the protective factors: better-diversified portfolios, less reactive traders, construct, install, trade, and practice informative, rather than habitual trading apps should create.

Research Gaps

There are three gaps that led to this study: UTAUT studies in Indian fintech assess how much people intend to adopt a product, but not how much they have become habitual, Voluntariness of Use has not been tested as independent predictors of investment habits, and the student segment is empirically understudied, though growing at a rapid pace as a market participant. This research paper deals with all the three straightforwardly.

RESEARCH METHODOLOGY

The quantitative and descriptive design is used in the context of a positivist approach; a deductive methodology brings propositions generated with the UTAUT into falsifiable hypotheses and tests them on the primary data. The target group includes Indian students who are the active users of Zerodha and/or Groww. The respondents were qualified using purposive sampling that was extended to snowball sampling among peer networks. The data were gathered using structured Google Form (February-March 2026) in WhatsApp groups of students, LinkedIn and Instagram. One hundred and thirty one out of five hundred and five responses were total and valid. According to Hair et al. (2010), 100-150 respondents are adequate for regression-based behavioural research; that is the sample size that meets this requirement.

The questionnaire has 40 items; the first section (A) with five categorical demographic questions and the second section (B–H) with five Likert questions (on a 1-5 scale) that represent PE, EE, SI, FC, Use Behaviour (UB), Voluntariness of Use (VOL) and Investment Habits (IH). IH is the most important dependent variable; UB mediates H3 and H4. The reliability was examined through Cronbachs Alpha; validity through Kaiser Meyer Olkin (KMO) measure and Exploratory Factor Analysis (EFA) with Varimax rotation. The pathways were tested using six simple linear regressions using 0.05 as a significance level.

DATA ANALYSIS AND RESULTS

Reliability and Validity

The Alpha of Cronbach = 0.926 (Excellent; George & Mallery, 2003), which proves a consistent measurement on all the 35 items. The appropriateness of factor

analysis is verified by KMO = 0.874 (Meritorious; Kaiser, 1974), and the Test of Sphericity ($p < 0.001$) by Bartlett. The Varimax-rotated EFA loadings were more than 0.60 when all the items had no significant cross-loading solidifying good construct validity.

Sample Profile

The number of respondents was distributed evenly in terms of gender: 72 males (55.0%) and 59 females (45.0%). The age group of 21- 23 years was the most represented (48.9% and 64), then there was 24- 26 years (32.8% and 43) age group. The cohort of postgraduate students was the greatest in academics (50.4%, $n= 66$), followed by the undergraduates (42.7% $n= 56$). The monthly income was also significantly different with 31.3% reporting an above-20,000 earnings and a 27.5% reporting a below-5,000 earnings per month highlighting the economic diversity of the sample. Groww has been the most used platform (56.5, $n = 74$), followed by Zerodha (22.1, $n = 29$) and both platforms (21.4, $n = 28$).

Construct-Level Descriptive Statistics

Each construct was t-tested against a test value of 3.0 (midpoint of the Likert scale) at the neutral. All seven constructs gave statistically significant positive deviations of this norm, which means that the perceptions of students were always above neutral on all dimensions that were measured. The results are given in table 1.

Facilitating Conditions had the largest mean (3.780, $t = 12.602$) as it shows the general confidence in the access to devices and platform support. Voluntariness of Use was next (mean = 3.664), suggesting the presence of autonomous motivation, and Investment Habits (mean = 3.505) suggest a positive

but reinforcing approach to regular investing.

Hypothesis Testing — Regression Results

Table 2 summarises the findings from the six simple linear regression analyses. Every hypothesis was supported at $p < 0.001$, confirming the applicability of the extended UTAUT model to this context.

H1-H3 verified the positive influence of PE ($R^2 = 0.166$), EE ($R^2 = 0.240$), and SI ($R^2 = 0.205$) on the habits or usage, but with moderate strength. H4 generated the most significant predictor of Use Behaviour: Facilitating Conditions predicted usage variance (37.6) with a digital infrastructure as the basis of all interactions ($= 0.5006$). H5 demonstrated a strong direct correlation between Use Behaviour and Investment Habits (0.7064 , $R^2 = 0.363$): the frequent users of the app demonstrate significantly more disciplined investment habits. This gave H6 the best model: Voluntariness of Use by itself explains 48.3% of variance in Investment Habits ($= 0.6957$) since students who are intrinsically motivated develop the best life-long habits.

DISCUSSION

The most significant conclusion is the conclusive difference through which Voluntariness of Use ($R^2 = 0.483$) is more effective compared to traditional UTAUT constructs. The most intuitive predictor, which is Performance Expectancy, explained only a third of the variation ($R^2 = 0.166$). This change of heart can be explained in a self-determination perspective: Deci and Ryan (1985) have demonstrated that intrinsically motivated behaviour is categorically more persistent compared to utility-calculated behaviour or peer-conformity behaviour. Students who invest because they actually desire to

develop habits based on a qualitatively different base than those which algorithms or social pressure are pushing towards.

The policy implication of Predictors of Use Behaviour Facilitating Conditions dominating Social Influence ($R^2 = 0.376$ vs. 0.205) as a predictor of Use Behaviour is a significant one: in the case of the 27.5% with earnings below 5000 per month, print access and connection is a more important predictor of Use Behaviour compared to any marketing push. Social Influence is not trivial - the referral system in Groww and the discourse about investment in Instagram has socialised equity participation, but social proof propagates bad practices as well as good practices. PE and EE were also important but not significant, which confirms that ease-of-use and utility perceptions do support adoption but do not facilitate the intentional involvement that habit formation depends upon.

LIMITATIONS AND FUTURE RESEARCH

Three limitations apply. To begin with, 131 respondents meet regression criteria but restrict subgroup analysis on fine level by discipline or income. Second, the measure of financial literacy did not use objective tests, hence the arguments regarding literacy are based on the inference based on the literature. Third, the cross-sectional design records relationships and not chains of cause and effect.

To enumerate, longitudinal follow-up of student investors across several semesters, the use of validated financial literacy scales as a moderator of the relationship, and an extension to the geographic scope to include tier-2 and tier-3 cities where the infrastructures and social norms about investing may vary

significantly compared to those that predominate in this sample would all be beneficial.

CONCLUSION

The aim of this research was to gain an insight into how and why young Indian consumers who use real-time trading applications become habitual investors. The main conclusion is obvious: the aspect of motivation is the most important factor in the formation of a habit. Students who study because of a personal desire create the strongest habits; the ones that study due to peer pressure or algorithmic recommendations create much more vulnerable ones. The enabling role of digital infrastructure is critical enough to confirm that the good design cannot replace the simple technological requirements of sustained engagement.

To platform developers, long-term user value is less about the frequency of notifications or gamification than about those features that make investing seem personally significant: goal-tracking dashboards, contextual financial education, and reflective portfolio tools. Educators of universities ought to incorporate financial literacy modules and trading simulations, as SEBI-approved, into management courses and, at the same time, enhance the facilitating conditions and financial literacy. Protective design characteristics (cooling-off periods, real-time risk indicators, and transparent disclosure mechanisms) that are part of the onboarding process of retail trading platforms targeted at students should be compulsory.

REFERENCES

- Baabdullah, Abdullah M., Ali A. Alalwan, Nripendra P. Rana, Pushp Patil, and Yogesh K. Dwivedi. 2019. "An Integrated Model for m-Banking Adoption." *International Journal of Bank Marketing* 37 (6): 1419–1449.
- Barber, Brad M., Yi-Tsung Lee, Yu-Jane Liu, and Terrance Odean. 2020. "Do Day Traders Rationally Learn about Their Ability?" *The Review of Financial Studies* 33 (8): 3682–3720.
- Bianchi, Milo. 2018. "Financial Literacy and Portfolio Dynamics." *Journal of Finance* 73 (2): 831–859.
- Chaouali, Walid, Nizar Souiden, and Riadh Ladhari. 2021. "Explaining Adoption of Mobile Banking with the Theory of Trying." *Journal of Services Marketing* 35 (1): 89–102.
- Chuang, Li-Min, Chun-Chu Liu, and Hsiang-Kuan Kao. 2016. "The Adoption of Fintech Service." *International Journal of Management and Administrative Sciences* 3 (7): 1–15.
- Deci, Edward L., and Richard M. Ryan. 1985. *Intrinsic Motivation and Self-Determination in Human Behavior*. New York: Plenum.
- George, Darren, and Paul Mallery. 2003. *SPSS for Windows Step by Step*. Boston: Allyn & Bacon.
- Hair, Joseph F., William C. Black, Barry J. Babin, and Rolph E. Anderson. 2010. *Multivariate Data Analysis*. 7th ed. Upper Saddle River: Prentice Hall.
- Hamari, Juho, and Jonna Koivisto. 2015. "Working Out for Likes: An Empirical Study on Social Influence in Exercise Gamification." *Computers in Human Behavior* 50: 333–347.

- Kaiser, Henry F. 1974. "An Index of Factorial Simplicity." *Psychometrika* 39 (1): 31–36.
- Liebana-Cabanillas, Francisco, Arnold Japutra, Sebastian Molinillo, Neeraj Singh, and Nikhil Sinha. 2020. "Assessment of Mobile Technology Use in the Emerging Market." *Telecommunications Policy* 44 (9): 102009.
- Merkle, Christoph. 2017. "Financial Overconfidence over Time." *Journal of Banking & Finance* 84: 154–165.
- Ozili, Peterson K. 2020. "Financial Inclusion and Fintech: A Comparative Study of Different Approaches." *Journal of Internet and Digital Economics* 1 (1): 9–26.
- Patil, Pushp, Kuttimani Tamilmani, Nripendra P. Rana, and Vishanth Raghavan. 2020. "Understanding Consumer Adoption of Mobile Payment in India." *International Journal of Information Management* 54: 102144.
- Rogers, Everett M. 1962. *Diffusion of Innovations*. New York: Free Press.
- Tak, Prashant, and Savita Panwar. 2017. "Using UTAUT2 Model to Predict Mobile App Based Shopping in India." *Journal of Indian Business Research* 9 (3): 248–264.
- Usman, Hardius, Nucke Widowati Kusumo Projo, Chairy Chairy, and Muhammad Gamal Haque. 2022. "Is Islamic Fintech Possible? The Role of Technology Acceptance in Pushing for Innovation." *Journal of Open Innovation: Technology, Market, and Complexity* 8 (1): 31.
- Van Rooij, Maarten, Annamaria Lusardi, and Rob Alessie. 2011. "Financial Literacy and Stock Market Participation." *Journal of Financial Economics* 101 (2): 449–472.
- Venkatesh, Viswanath, Michael G. Morris, Gordon B. Davis, and Fred D. Davis. 2003. "User Acceptance of Information Technology: Toward a Unified View." *MIS Quarterly* 27 (3): 425–478.

Table 1: One-Sample t-Test Results — All Constructs (Test Value = 3)

Construct	Mean	t-value	p-value	Inference
Performance Expectancy (PE)	3.576	7.182	0.000	Above neutral
Effort Expectancy (EE)	3.499	6.101	0.000	Above neutral
Social Influence (SI)	3.478	6.464	0.000	Above neutral
Facilitating Conditions (FC)	3.780	12.602	0.000	Strongest consensus
Use Behaviour (UB)	3.415	5.754	0.000	Above neutral
Voluntariness of Use (VOL)	3.664	9.688	0.000	High intrinsic motivation
Investment Habits (IH)	3.505	7.912	0.000	Positive orientation

Source: Author's calculation.

Table 2: Summary of Regression Results (n = 131)

Hyp.	Predictor → Outcome	β	R ²	Decision
H1	Performance Expectancy → Investment Habits	0.3245	0.166	Accepted
H2	Effort Expectancy → Investment Habits	0.3955	0.240	Accepted
H3	Social Influence → Use Behaviour	0.3369	0.205	Accepted
H4	Facilitating Conditions → Use Behaviour	0.5006	0.376	Accepted
H5	Use Behaviour → Investment Habits	0.7064	0.363	Accepted
H6*	Voluntariness of Use → Investment Habits	0.6957	0.483	Accepted

Source: Author's calculation.

Note. All $p < 0.001$. *H6 yields the highest R², making it the strongest model in the study.

β = standardised regression coefficient.