



The role of financial literacy in the adoption of stock investment applications among Generation Z in Mumbai and Thane district

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Abstract

This study explores how financial literacy shapes the use and acceptance of stock investment applications among Generation Z individuals (aged 18–28) residing in Mumbai. Drawing upon frameworks from the Technology Acceptance Model (TAM), Unified Theory of Acceptance and Use of Technology (UTAUT), and behavioral theories, the research investigates how financial knowledge, trust, and user-friendliness influence app adoption. The study follows a survey-based quantitative method using structured questionnaires to collect primary data. The expected outcome suggests that individuals with stronger financial understanding are more confident, perceive lower risks, and are more likely to engage with stock investment apps. The findings will assist fintech developers, educators, and policymakers in promoting financial education and improving app usability to encourage informed investment participation.

Keywords: Financial literacy, Generation Z, fintech adoption, stock investment apps, trust, ease of use, Mumbai, Thane

Introduction

In recent years, financial technology (FinTech) has revolutionized how individuals manage money, make payments, and invest in financial markets. Stock investment applications have simplified access to equity markets, enabling users to trade, monitor portfolios, and analyze data conveniently through their smartphones.

Generation Z—individuals born between 1997 and 2012—represents the first digitally native generation. While they possess strong technological competence, many still lack adequate financial knowledge, which can affect their investment decisions. Financial literacy, defined as the ability to understand and effectively apply financial principles such as savings, interest, investment, and risk management, plays a pivotal role in guiding informed investment behavior.

The increasing popularity of investment applications has created opportunities for greater participation in financial markets. However, the adoption rate among Generation Z remains moderate. This research explores how financial literacy, trust, perceived usefulness, and ease of use influence the adoption of stock investment applications among Generation Z individuals residing in Mumbai and Thane.

Review of Literature

1. Financial Literacy and Investment Behavior

Lusardi and Mitchell (2014) [2] established that financial literacy plays a crucial role in shaping an individual's investment decisions, risk tolerance, and long-term wealth accumulation. They found that individuals with higher financial knowledge are more likely to diversify their portfolios and avoid high-risk or uninformed investment choices. Similarly, Bhushan and Medury (2013) examined financial literacy among young Indian investors and discovered that awareness of basic concepts such as inflation, compound interest, and diversification significantly impact their investment preferences.

Dr. Ram (2020), in his study on Investment Attitude of Generation Z toward Stock Markets, concluded that young

investors exhibit higher optimism and willingness to invest in equity markets compared to older generations. This was attributed to the easy availability of financial content through digital platforms and mobile investment applications. Potrich, Vieira, and Kirch (2018) also highlighted that individuals with greater financial literacy demonstrate better investment planning and financial management, leading to improved economic security.

A study by Agarwal and Mazumder (2013) found that financially literate individuals are less likely to fall for speculative trading or herd behaviour. In the Indian context, Goyal and Kumar (2021) emphasized that the inclusion of financial education in schools and universities is directly linked to higher financial inclusion and better investment participation among youth.

2. Technology Acceptance and Perceived Usefulness

The Technology Acceptance Model (TAM), introduced by Davis (1989) [1], remains a foundational framework in understanding digital adoption behaviour. The model suggests that perceived usefulness and perceived ease of use are the primary factors determining user intention to adopt technology. In the financial context, when investors perceive that an app simplifies trading, offers real-time information, and enhances decision-making efficiency, they are more likely to use it.

Pikkarainen *et al.* (2004) extended TAM to the online banking sector and found that customers' acceptance largely depends on how useful they perceive the technology to be in managing finances. In a similar vein, Chitungo and Munongo (2013) applied TAM to mobile banking users in developing countries and confirmed that ease of use significantly influences adoption rates, especially among younger consumers familiar with smartphones.

In India, Sharma and Goyal (2019) studied mobile trading apps and concluded that perceived usefulness, along with performance expectancy and user satisfaction, strongly influences behavioural intention. Their research emphasized that intuitive design, simplified onboarding, and minimal transaction barriers are critical to encouraging new investors to adopt such platforms.

3. Trust, Risk, and Security in Digital Finance

Trust has been identified as a vital determinant of online financial behavior. Luo (2002) ^[4] highlighted that online transaction trust depends on users' perceptions of privacy, security, and system reliability. If these dimensions are not ensured, even highly literate investors may refrain from using digital investment platforms. Gefen *et al.* (2003) supported this view, stating that trust acts as a mediating factor between perceived usefulness and adoption intention in e-commerce.

In India, Sood and Arora (2021) found that cybersecurity concerns, data breaches, and lack of transparency are key barriers that prevent users from fully engaging in online investments. They suggested that financial service providers should focus on enhancing credibility through certifications, investor protection policies, and data encryption mechanisms.

Meanwhile, Liew and Nordin (2015) studied Malaysian youth and concluded that trust and perceived risk directly affect the intention to use mobile financial services. Similarly, Jain and Singhal (2020) observed that Indian Gen Z investors display high digital awareness but low institutional trust, preferring apps that provide educational guidance and social proof before investing.

4. Unified Theory of Acceptance and Use of Technology (UTAUT)

Venkatesh *et al.* (2003) ^[3] developed the Unified Theory of Acceptance and Use of Technology (UTAUT), expanding on TAM by including constructs such as social influence, facilitating conditions, performance expectancy, and effort expectancy. This framework offers a more comprehensive understanding of how individual, technological, and social factors interact to influence user behaviour.

In financial technology adoption, Dwivedi *et al.* (2019) validated UTAUT in the context of mobile banking and found that social influence and facilitating conditions have strong predictive power for behavioural intention, particularly among young adults. Additionally, Baptista and Oliveira (2015) demonstrated that social norms and peer usage can significantly motivate individuals to adopt new financial technologies.

In the Indian setting, Mehta and Sharma (2021) applied UTAUT to analyse Gen Z's acceptance of fintech apps and observed that social influence, along with perceived convenience, was a strong driver of app adoption. Their findings suggest that social networks, peer groups, and influencer recommendations substantially affect the investment behaviour of young investors.

5. Generation Z and Fintech Adoption

Xu and Utkus (2019) ^[5] found that Generation Z is more digitally oriented, preferring mobile applications and automated investment platforms that offer speed, convenience, and real-time decision-making capabilities. The study noted that this group values user-friendly interfaces, transparency, and personalized financial education.

Gupta and Agrawal (2022) examined fintech adoption among young Indian investors and concluded that digital literacy, social media influence, and perceived entertainment value of apps play major roles in shaping financial engagement. Similarly, Kaur and Singh (2023) reported that Gen Z users prefer platforms offering learning

tools, gamified interfaces, and easy access to mutual funds and stocks.

According to Roy and Sinha (2020), Generation Z's investment behavior is heavily influenced by peer discussions and online communities. They found that educational initiatives embedded within fintech apps significantly enhance trust and usage intention. Furthermore, the study by Chatterjee and Kar (2021) indicated that the COVID-19 pandemic accelerated the adoption of investment apps among young adults, leading to increased comfort with online trading platforms.

6. Research Gap and Summary

The reviewed literature highlights that financial literacy, perceived usefulness, trust, and social influence play pivotal roles in influencing the adoption of financial technologies. While numerous studies have applied TAM and UTAUT frameworks globally, research specific to Indian Generation Z investors—particularly in metropolitan regions like Mumbai and Thane—remains scarce. Most prior studies have either focused on banking technologies or general fintech adoption without addressing stock investment applications specifically.

Therefore, the present research aims to bridge this gap by examining how financial literacy, combined with factors such as perceived trust, usefulness, and ease of use, influences the adoption and behavioral intention toward stock investment apps among Generation Z individuals in Mumbai and Thane districts.

3. Significance of the Study

This study is significant for several reasons:

- It provides insight into how financial literacy impacts investment behavior among digitally savvy youth.
- It highlights trust, usability, and awareness barriers that influence fintech adoption.
- The findings will assist fintech developers in designing more educational and secure apps, educators in strengthening financial literacy programs, and policymakers in promoting digital investment inclusion.

Research Objectives

- To measure the level of financial literacy among Generation Z individuals in Mumbai and Thane.
- To analyse how financial literacy affects the decision and intention to adopt stock investment apps.
- To identify the influence of trust, usefulness, and ease of use on app adoption behavior.
- To recognize the key barriers preventing Generation Z from investing through digital platforms.

Research Methodology

1. Research Design

The research follows a quantitative descriptive design based on a structured survey approach. This design helps identify relationships among variables such as financial literacy, trust, and app adoption behaviour.

2. Population and Sampling

- **Target Population:** Generation Z individuals aged 18–28 residing in Mumbai and Thane.
- **Sample Size:** 100 respondents.
- **Sampling Technique:** Random sampling, covering college students, early professionals, and young entrepreneurs.

3. Data Collection

Primary data were collected through structured online questionnaires (Google Forms). Questions included demographic details, investment behaviour, financial literacy assessments, and perceptions of fintech usability.

Data Analysis and Interpretation

1. Demographic Profile

Out of the 100 participants, 55% were from Mumbai and 30% from Thane, while the remaining 15% resided elsewhere. The gender ratio was nearly balanced, with 48% male and 52% female respondents. A large proportion (45%) were pursuing undergraduate studies, and around 55% were full-time students. In terms of income, most participants reported no or low monthly income, consistent with the age group of 18–28 years.

Interpretation

The findings suggest that Generation Z in Mumbai and Thane is digitally inclined but financially limited. Most are students or early earners, which affects their capacity and

confidence to engage in active investment activities despite their technological access.

2. Investment Behaviour

Among the 100 respondents, 50% had never invested, 35% had invested occasionally, and 15% were regular investors. Access to technology was high, with 92% owning smartphones and 95% having active bank accounts. Despite this, only 25% reported using stock investment apps monthly or more frequently, while the rest used them rarely or not at all.

Interpretation

Although respondents are technologically capable, their actual investment participation remains low. The data indicates that limited financial knowledge and lack of confidence in handling investments are key factors behind this gap.

3. Barriers to Adoption

Barrier	% of NonUsers	Interpretation
Lack of knowledge	30%	Highlights the importance of structured financial education and awareness programs.
Low trust in apps	20%	Reflects ongoing concerns about online safety and credibility of fintech platforms.
Insufficient funds	25%	Suggests that limited disposable income discourages app-based investing.
Preference for traditional methods	10%	Indicates a continued reliance on conventional banking and advisory systems.

Interpretation

The major obstacles to fintech adoption among Gen Z participants are knowledge gaps, financial constraints, and lack of trust in digital systems. These barriers must be addressed through education, transparency, and secure financial interfaces.

4. Intention to Use Investment Apps

The average intention score was 3.2 out of 5, showing moderate willingness to adopt or increase the use of stock investment applications in the near future.

Interpretation

Respondents exhibit cautious optimism toward digital investment tools. While they are open to exploring investment apps, their confidence level is not yet strong enough for consistent engagement without educational support and risk reassurance.

Preferred App Features

When asked about preferred features, respondents prioritized

- Ease of use (72%)
- Low transaction cost (65%)
- Strong security measures (60%)
- Educational content and learning tools (50%)

Interpretation

Ease of use, affordability, and safety are the key factors influencing app preference among young investors. The results suggest that simplified interfaces, transparent fee structures, and informative content can significantly improve adoption and trust.

5. Financial Awareness and Perception

Statement	Mean Score (1–5)	Interpretation
Understands financial concepts	3.9	Respondents display good understanding of fundamental financial ideas.
Confident in investment decisions	3.2	Shows moderate self-confidence in handling financial matters.
Can compare investment options	3.1	Reflects limited analytical and evaluative ability.
Trusts investment app data	2.9	Indicates low confidence in the authenticity of app-provided information.

Interpretation

Overall, respondents possess basic financial awareness but lack deeper analytical and decision-making skills. Their limited trust in fintech applications suggests that developers and educators must focus on building credibility, transparency, and user empowerment through reliable information and guided learning.

Summary of Findings

1. High Digital Readiness but Low Investment Activity

Most young people in the study are good at using smartphones and apps. They are familiar with technology, but only a few actually invest money through stock apps.

Many just explore the apps without making real investments.

2. Average Financial Knowledge but Less Real-Life Use

The participants have a basic understanding of financial terms like savings, risk, and returns. However, they often find it hard to use this knowledge when it comes to making real investment decisions or planning their finances.

3. Lack of Trust and Confidence in Apps

Many people do not fully trust investment apps. They worry about things like data safety, hidden charges, and whether

the app is reliable. Because of this, they hesitate to link their bank accounts or invest through these apps.

4. Income and Peer Influence Matter

A person's income and the opinions of friends or social media influencers strongly affect their investment choices. Those with higher income or encouragement from peers are more likely to use investment apps.

5. Ease of Use and Low Cost Attract Users

People prefer apps that are simple to use, have clear instructions, and allow small investments. Affordable and easy-to-understand apps motivate more users to start investing.

Recommendations

1. Integrate Financial Education in College Curriculums

Colleges should include basic financial and investment education in their courses. This will help students understand how to manage money, make smart investment decisions, and use financial apps more confidently.

2. Enhance App Transparency and Security

Investment apps should clearly explain their fees, policies, and risks. They must also use strong security systems to protect user data and transactions. Verified and reliable content will help build user trust and confidence.

3. Simplify App Interfaces

Investment platforms should have simple and user-friendly designs. Clear instructions, easy navigation, and interactive tutorials can help beginners understand how to invest without confusion.

4. Offer Micro-Investment Options

Many students and young people cannot invest large amounts. Apps should provide options for small or "micro" investments so that users with limited funds can start investing and gradually build experience.

Limitations of the Study

1. The study focuses only on Mumbai and Thane, limiting generalization.
2. Responses are self-reported and may include bias.
3. Only quantitative data were used; qualitative insights were not explored.
4. The study considers limited behavioral variables.
5. Rapid fintech evolution may affect future relevance.

Conclusion

The study explored how financial literacy influences the adoption and usage of stock investment applications among Generation Z in the Mumbai and Thane districts. Based on data collected from 100 respondents aged between 18 and 28 years, the findings reveal that while this generation demonstrates high digital readiness, their financial literacy and investment confidence remain moderate.

Most respondents possess smartphones and bank accounts, indicating that the technological infrastructure for digital investment is well established. However, actual participation in stock investing remains limited, with many expressing hesitations due to lack of knowledge, low trust in financial apps, and limited disposable income. The results

suggest that financial education plays a critical role in shaping investment attitudes and behaviors. Participants with higher objective and perceived financial literacy scores showed greater confidence and a stronger intention to use investment applications.

Preferred app features—such as ease of use, low transaction costs, robust security, and educational support—further emphasize that Generation Z values simplicity, transparency, and learning opportunities in financial platforms. This highlights a need for user-centric fintech designs that combine accessibility with credible, informative content.

In conclusion, the research underscores that enhancing financial literacy is essential for improving investment participation among young adults. When supported with educational interventions, transparent app interfaces, and trust-building mechanisms, Generation Z can become an active and informed segment in India's growing digital investment ecosystem. The study contributes to understanding how financial knowledge, confidence, and technology acceptance jointly shape investment adoption behavior, offering valuable insights for educators, policymakers, and fintech developers aiming to engage this emerging investor generation.

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