



# FINTECH ADOPTION AND INDIVIDUAL INVESTMENT DECISION-MAKING: A CONCEPTUAL REVIEW

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## ABSTRACT

The rapid growth of financial technology in Fintech has transformed the perspective and the way how individuals participate in financial markets. The emergence of digital trading platforms, Robo-advisor service, mobile investment applications and AI -driven Analytics has significantly increased retail investor participation, particularly in emerging economies like India. According to NSDL and CDSL reports 2024, India has crossed 100 million demat accounts, indicating a structural framework shift towards technology-enabled study. Even if there is a rapid growth in technology, there is a limited conceptual clarity exist regarding how fintech usage influences individual investment decision-making, especially through the lens of behavioural finance and technology adoption theories. This paper integrates the technology acceptance model (TAM), Unified theory of acceptance and use of technology (UTAUT) and Behavioural Finance Theory to propose a theoretical framework explaining the relationship between investment behaviour and fintech usage. The study identifies behavioural biases as a mediating factor and financial literacy as a moderating variable. The paper contributes by offering a conceptual structured model for future empirical testing and provides implications for investors, fintech firms, and policymakers.

**KEYWORDS** : Fintech , TAM , UTAUT , Investment Decision Making , Behavioural Biases

## 1. INTRODUCTION

The financial service industry has undergone a significant digital transformation due to the emergence of financial technology, Fintech. Fintech refers to the integration of technology into financial services to enhance efficiency, accessibility, and user experience. Robo-Advisors mobile trading apps, algorithm-based investment tools, and digital payment systems have made investing more accessible to retail investors

In India , The Fintech ecosystem has expanded rapidly. In 2024 RBI report significant growth in digital financial transactions, while NSDL and CSDL data shows records increase in the new demand account holders from post 2020. Retail investors are rapidly increasing in using investing platforms such as Zerodha, Groww and Upstox for equity investments and mutual fund investments. While Fintech enhances accessibility by reducing transaction costs and investment decisions are not purely rational. Behavioural finance suggests that investors are influenced by their psychological biases such as herding, over and loss aversion ( Kahneman & Tversky 1979) . Therefore, by understanding the combined influence of technology adoption and behavioural basis on investment decision making is essential.

This paper conceptually examine , how the usage of fintech influence in the individual investment decision by integrating the adoption of technology theories and behavioural finance principles .

## 2. REVIEW OF LITERATURE

### 2.1. FinTech and investment participation

The existing studies indicate that Fintech platforms improve financial inclusion and investor participation by lowering entry barriers and providing them a real-time information. As digital platforms are increasing the frequency of trading and easy market access to the Participants(Jayalakshmi, Chidananda, Harshitha, et al., 2025).



## 2.2. Technology Adoption Theories

The technology acceptance module (TAM) Was developed by Davis (1989) in Suggested Perceived usefulness (PU) And perceived easy of use (PEOU) Influence technology adoption. When investors perceive fintech platforms as useful and user friendly It increased the adoption(Jayalakshmi, Chidananda, & Harshitha, 2025).

The unified theory of acceptance and use of Technology (UTAUT) (Venkatesh et al., 2003) Further identifies performance acceptance, Effort expectancy Social influences and facilitating conditions as determinants of usage behavior(Jayalakshmi et al., 2026).

## 2.3. Behavioural Finance And Investment Decision

Behavioural finance challenges the assumption of a rational decision-making . Prospects (Kahneman & Tversky , 1979 ) Theory explains how individuals evaluate gains and loss Asymmetrically(Jayalakshmi K U, 2024).

Common biases affecting investors includes :

1. Overconfidence bias
2. Loss aversion
3. Anchoring bias
4. Herding behavior
5. Availability Heuristic

Even with access to advanced Fintech Tools ,The investors may still exhibit irrational behavior.

## 2.4. Linking Fintech And Behavioural Biases

Recent literature suggested that while fintech provides better access to information, it may also increase speculative trading and emotional investing due to instant access and real-time alerts . However, there is a limited Conceptual integration existing between FinTech adoption models and behavioural finance theory(Jayalakshmi K U et al., 2023).

## Research Gap

All through there are studies existing separately examining the fintech adoption and behavioural investment biases. But there is a limited research integrated With both perspective into A unified conceptual framework. Particularly in the Indian context, There is an insufficient theoretical Discussion on:

- How fintech usage influence behavioural biases.
- Whether Fintech reduce or amplifies irrational investment behaviour.
- The moderating role of financial literacy in digital investment decision.

This study attempts to bridge the By proposing an integrated conceptual framework

## 3. SCOPE OF THE STUDY

This study focuses on how Individual Retail investors use fintech platforms, It includes Mobile trading applications And Robo-Advisor Services ,for making their investment decisions. (Shobha et al., 2024)It examines how technological factors such as perceived usefulness and easy of use, along with behavioural factors like overconfidence and loss aversion , Which is influencing investment behaviour(Dhilipan et al., 2026).The analysis is situated within the context of emerging economies, particularly in India ,where digital financial adoption has increased significantly In the recent years(Selvamani et al., 2026).This study is a conceptual in nature and aims to develop a theoretical Foundation that can support future empirical research on FinTech adoption and investment decision-making .

## 4. OBJECTIVE OF STUDY

1. To integrate technology adoption theories with behavioural finance theory.
2. To identify behavioural biases influencing digital investment decision.
3. To propose a conceptual framework for future empirical validation.

## 5. CONCEPTS

### 5.1. FinTech Usage

Fintech usage refers to the adoption and active utilisation of digital financial platforms for investment activities, including mobile trading application Robo advising services And ai divine analytical tools. The concept of Fintech gained prominence after the global financial crisis, with Schueffel (2016) defining fintech as technology-enabled financial innovation That improves service efficiency and accessibility. The adoption of Fintech platforms can be explained using technology acceptance Module (TAM) Proposed by Davis In 1989, Which emphasise perceived usefulness and perceived easy of use as key determinant Of technology adoption In the Indian context, the rapid



expansion of digital investment platforms such as Zerodha (founded in 2010), Upstox (in 2009), Groww (2016), and Paytm Money (2017) has significantly increased retail investor participation in investment, particularly after the COVID-19 pandemic in 2020. According to NSDL and CDSL (2024), India surpassed 100 million demat accounts, reflecting a structural shift towards app-based investing. UTAUT theory (Venkatesh et al., 2003) further explains that social influence and performance expectancy contribute to increasing platform usage, especially among millennials influenced by digital communities. Additionally, Robo Advisor platforms such as ET Money (2018 expansion) use algorithm-based portfolio suggestions to assist investors. While Fintech usage enhances accessibility, reduces transaction costs, and provides real-time market data, its growing adoption also raises concerns about speculative trading and impulsive decision-making in digital environments.

### 5.2. Investment decision making

Investment decision-making refers to the systematic process through which individuals select financial assets based on risk-return preferences, available market information, and personal financial goals. Traditional finance theory, particularly modern portfolio theory developed by Markowitz, emphasizes diversification. However, in the digital era, investment decisions are increasingly influenced by Fintech platforms that provide real-time data, research tools, and algorithm-based recommendations. Platforms such as Zerodha (2010) and Groww (2016) offer analytical dashboards and instant execution facilities, enabling investors to make quicker decisions. According to Barber and Odean (2001), increased trading frequency—often facilitated by online platforms—may reduce overall returns due to overtrading. Post-2020, during the surge in retail participation, digital brokers reported record account openings, indicating a shift from traditional brokerage models to mobile-based investing. RBI reports showed a significant growth in digital financial transactions in 2024, reinforcing the integration of technology in investment behaviours. While Fintech platforms enhance information accessibility and lower entry barriers, decision-making is not purely rational. Instead, it is influenced by psychological, technological, and informational factors. Therefore, investment decision-making in the Fintech era represents a blend of classical risk-return evaluation and behavioural responses triggered by digital engagement.

### 5.3. Behavioural biases

Behavioural biases refer to the systematic psychological tendencies that deviate individuals from rational decision-making, particularly in financial contexts. Behavioural finance theory emerged as an assessment of the traditional finance assumption. Prospect theory, developed by Kahneman and Tversky (1979), demonstrates that individuals evaluate gains and losses asymmetrically, often exhibiting loss aversion. Investors tend to fear losses more strongly than they value equivalent gains. Barber and Odean (2001) identified overconfidence bias as a major factor leading to excessive trading. In the Fintech environment, mobile trading apps such as Upstox and Zerodha (2010 onwards) provide instant market access, which may amplify overconfidence due to continuous exposure to price movements and real-time analytics. Herd behaviour, explained by Bikhchandani and Sharma (2001), occurs when investors imitate others' actions, often influenced by social media platforms and online investment forums, particularly during the retail trading boom of 2020-2022. Anchoring and availability biases further influence investors when recent market trends dominate decision-making. All through Fintech platforms aim to provide accurate data and algorithmic insights. Psychological biases persist, sometimes intensified by instant notifications and a gamified interface. Thus, behavioural biases are central to understanding investment decisions in the digital financial ecosystem.

### 5.4. Financial literacy

Financial literacy refers to the knowledge and understanding of financial concepts that enable individuals to make informed and effective financial decisions. The OECD (2013) defines financial literacy as a combination of awareness, knowledge, skill, attitude, and behaviour necessary to make sound financial choices. In the investment context, financial literacy includes understanding risk diversification, interest rates, inflation, and portfolio management principles. Studies indicate that financially literate individuals are more likely to participate in the stock market and diversify their investments effectively. In India, SEBI's Investor Survey in 2019 highlighted the levels of financial awareness across demographic groups, emphasising the need for investor education initiatives. With the expansion of Fintech platforms such as Groww (2016) and Paytm Money (2017), digital investing has become accessible even to first-time investors; however, without adequate financial literacy, users may engage in speculative trading. Lusardi and Mitchell (2014) argue that financial literacy significantly influences retirement planning and investment behaviour. In the Fintech era, financial literacy acts as a moderating factor, determining whether digital tools are used for disciplined long-term investing or for short-term speculative gains. Therefore, improving financial literacy is essential to ensure that technology-driven finance inclusion translates into sustainable investment outcomes.



## 6. DISCUSSION

The rapid growth of Fintech platform has significantly transformed individual investment behaviour particularly in emerging economics like India. Drawing from the technology acceptance module (Davis , 1989 ) and UTAUT ( Venkatesh et al., 2003), The increasing adoption of platforms such as Zerodha (2010) , Groww (2016) , and Paytm Money (2017) Can be attributed to perceived usefulness easy of use and social influences These platforms have reduced transaction cost Simplified account opening procedures and provide real time market information, thereby encouraging retail participation. According to NSDL and CDSL (2024) , Urge that overconfidence often lead to excessive trading the extent execution feature and continuous notification of mobile trading apps may amplify impulsive behaviour and herding tendencies Particularly among inexperienced investors while fintech platforms provide analytical tools and ai based recommendation they may also increase speculative trading due to easy access .Therefore , Fintech usage has a dual impact it democratises financial market but simultaneously intensifies Behavioural biases. The effectiveness of Fintech in improving investment decision making largely depends on the investors level of financial literacy and ability to interrupt digital information responsively.

## 7. CONCLUSION

The conceptual analysis highlights that fintech usage has fundamentally reshaped the investment decision making process by increasing accessibility Reducing costs and integrating advanced technology tools. Theories such as TAM (Davis 1989 ) and UTAUT ( Venkatesh et al., 2003 ) Explain why investors adopt digital investment platforms, Emphasising performance expectancy And easy of use. The expansion of companies such as Zerodha , Groww , Upstox During the 2020 period Reflects the digital transformation of financial markets and the growing participation of retail investors.

Nevertheless, the study also emphasised that the technology alone does not guarantee rational investment decision. Behavioural biases, as explained by prospect theory (Kahneman & Tversky, 1979) and overconfidence theory (Barber & Odean, 2001), Continue to influence investor behaviour even in technological advance environments. The availability of real time data and instant reading facilities may encourage high trading frequency and emotional reaction to market volatility . Thus, Fintech serves as both an enabler of informed investing and potential catalyst For speculative behaviour.

The overall conclusion is that fintech positively influences investment participation but it impacts on decision quality depends on psychological and educational factors. Financial literacy plays a critical moderating role in ensuring that digital tools are used effectively. Therefore a balance integration of technology behavioural awareness and financial education is essential for Sustainable and rational investment outcomes in the Evolving digital financial ecosystem.

## 8. SUGGESTIONS

Based on the conceptual findings, several practical suggestion Are proposed to enhance the positive impact of fintech on investment decision making. Firstly, regulatory authorities such as Sebi and RBI should strengthen investor education initiatives focusing on financial literacy. As platform like Groww (2016 ) Paytm Money (2017) Attract first time investors. Structured awareness programmes can help individuals understand risk Trade offs and avoid impulsive trading.

Secondly, Fintech companies should incorporate behavioural safeguards within their application design features such as risk assessment questionnaires, portfolio diversification reminders and long-term investment nudges Can help reduce excessive trading. Inspired by the Robo-Advisory Model introduced by Et Money (2018), Platforms should emphasise goal-based investing rather than short-term speculation. Transparent disclosure of algorithm recommendations and ai driven situations is also essential to build investors' trust.

Third, Higher educational institution should integrate digital investment literacy into commerce and management curricula to prepare students for technology-driven financial markets. Since social influence significantly affect fin tech adoption (Venkatesh et al., 2003), Awareness campaigns should also address misinformation spread through online communities.

Finally, future empirical research should test the proposed conceptual framework using primary data to examine the mediating role of behavioural biases and the moderating effect of financial literacy. By combining regulatory support, responsible platform design and enhancing financial education, the long-term benefits of fintech adoption can be maximised while minimising behavioural risk.



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