

Digital Transformation in Retail Investment: The Impact of Fintech on Investor Behaviour and Decision-Making”

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Abstract: *The rapid growth of financial technology (FinTech) has significantly transformed the financial services sector by improving accessibility, efficiency, and convenience in investment activities. Innovations such as online trading platforms, mobile investment applications, robo-advisory services, and real-time analytics tools have changed the way investors interact with financial markets. This study examines the impact of FinTech innovations on investor behaviour, trading decisions, and risk perception, with a focus on retail investors. Using a descriptive research design, primary data were collected from 102 respondents through a structured questionnaire. The study analyses factors such as FinTech usage frequency, platform features, perceived benefits, and challenges in influencing investor behaviour. Statistical tools, including descriptive analysis, reliability testing, and regression analysis, were applied using SPSS software. The findings reveal that FinTech usage has a positive but weak impact on investment behaviour, while FinTech features significantly influence trading decisions. Additionally, perceived benefits positively affect risk perception, whereas challenges do not show a significant impact. The study concludes that FinTech innovations play a crucial role in shaping modern investment behaviour and decision-making processes.*

Keywords: FinTech, Investment Behaviour, Trading Decisions, Risk Perception, Retail Investors, Financial Technology Adoption.

Introduction

The global financial system has undergone a profound transformation over the past decade, driven by rapid advancements in digital technology. The integration of financial services with innovative technologies—commonly referred to as financial technology (fintech)—has revolutionised the way financial products are designed, delivered, and consumed. FinTech is an amalgamation of “financial technology”, which involves new technology and innovation by leveraging available resources to compete in the marketplace of traditional ways in the delivery of financial services. Innovation can reduce the cost of service and make it more affordable to the market, but the purpose is to make financial services more accessible and convenient. (Priyadarshi et al., 2024)

Over the past few decades, fintech, with its rapid innovation and wide application, is reshaping the landscape of global financial markets. Fintech covers various digital technologies such as blockchain, robo-advisors, crowdfunding, big data, peer-to-peer lending, and smart investment advice, thereby enhancing the financial industry. (Zhang, 2025). This has also greatly improved the efficiency and accessibility of financial services, making traditional financial services gradually transform into digitalisation and automation. This represents the integration of financial services and information technology, ushering in a new era in the financial industry. (Zhang, 2025).

One of the most profound effects of FinTech has been seen in retail investment. Retail investors are individual, non-institutional participants who invest their personal funds in financial markets, rather than on behalf of organizations or institutions. Increasingly, these investors are turning to digital platforms for their investment activities. FinTech-enabled platforms have transformed investment decision-making from traditional, advisor-driven methods to more autonomous, real-time, and technology-driven environments. FinTech has significantly enhanced the ease and convenience of participation for retail investors by lowering the traditional barriers to entry. Digital investment platforms provide user-friendly interfaces, seamless account opening processes, and low-cost trading options, enabling individuals to invest with minimal capital and effort required. Additionally, features such as real-time market access, mobile-based trading applications, automated portfolio management through robo-advisors, and access to educational resources empower investors to make informed decisions independently. Also, FinTech platforms offer instant transaction capabilities, transparency in pricing, and personalized investment recommendations using data analytics and artificial intelligence, thereby improving accessibility and user experience. Consequently, retail investors are no longer dependent on intermediaries and can actively participate in financial markets with greater flexibility and control (Glory Ugochi Ebirim & Beryl Odonkor, 2024)

These developments have reshaped how retail investors interact with financial markets, shifting investment decision-making from traditional, advisor-driven settings to fast-paced, self-directed digital environments. As a result, understanding investor behaviour in FinTech-enabled contexts has become a central concern in contemporary finance research (Farrukh Zafar et al., 2026).

Historically, financial institutions operated in a slow and manually intensive manner, but FinTech has completely changed this sector and made services faster, less expensive, and customer-centric. Financial services are one of the most significant components in the overall operation of the global economy, and this new technology – FinTech – is revolutionising the way in which people make payments, obtain loans, invest their money, and monitor their personal finances. This revolution has been noted as undergoing a ‘Fintech Revolution’ as it’s not only an evolution or an improvement in the sector but a complete revolution in the way in which these services will be delivered Patil & SHAH, 2026). The major benefit of fintech innovation is increased cost-effectiveness, accelerated speed, and greater transparency in financial services (Patil & SHAH, 2026).

Digital investment platforms expose users to continuous streams of market data, analyst opinions, algorithmic recommendations, and social media signals, which may overwhelm investors rather than support effective decision-making. Despite the perceived benefits of FinTech adoption, behavioural finance research consistently demonstrates that increased access to information and technology does not automatically lead to rational or high-quality financial decisions. Investors remain susceptible to cognitive limitations, emotional biases, and information-processing constraints, particularly in complex and uncertain environments.(Farrukh Zafar et al., 2026)

Need for the Study

FinTech has changed the financial sector by making digital payments, robo-advisory, and other technologies more accessible. These advances help make investing easier and more efficient, but they also bring challenges, including data privacy concerns and greater dependence on technology. It is important to understand how FinTech affects investor behaviour and decision-making. This study looks at how FinTech influences retail investors and their investment choices.

Review of Literature

FinTech and Market Accessibility

A substantial amount of research highlights the impact of FinTech in making financial markets more accessible by lowering entry barriers. Studies like those by (Das et al., 2024) and (Priyadarshi et al., 2024) reveal that digital platforms, such as mobile trading apps and robo-advisory services, have increased retail involvement by providing affordable and easy-to-use investment options. Likewise, (Zhang, 2025) points out that automation and algorithm-based tools lessen reliance on traditional intermediaries, thus promoting wider market participation. This enhanced accessibility has particularly drawn in younger, tech-savvy investors, feeling the swift growth of retail participation in financial markets.

Behavioural Implications of FinTech Adoption

Although FinTech promotes greater involvement, its influence on investor behavior is multifaceted. Studies rooted in Behavioral Finance indicate that simply having more access to digital tools does not automatically result in logical decision-making. According to (Patil & SHAH, 2026)and (Farrukh Zafar et al., 2026), while real-time data and algorithmic suggestions can enhance the speed and confidence of decisions, they also foster behavioral biases like overconfidence, impulsive trading, and herd mentality. Additionally, being exposed to too much information can lead to cognitive overload, which can degrade the quality of decisions even if confidence is boosted. These insights reveal that FinTech both facilitates and complicates the decision-making processes of investors.

Role of Platform Features and Technological Advancements

Research consistently highlights the importance of platform functionality as a crucial factor in attracting investors and influencing their decisions. Elements like real-time analytics, AI-driven recommendations, and tailored advisory services play a significant role in shaping investment decisions (J. M & K. V, 2025) and (Srivastav et al., 2024). These technological features not only boost efficiency but also enhance the user experience and support decision-making. According to the Technology Acceptance Model, perceived usefulness and ease of use are pivotal in driving the adoption and sustained use of FinTech.

Benefits and Challenges of FinTech Adoption

The dual nature of FinTech is evident in its benefits and associated challenges. On one hand, FinTech provides advantages such as accessibility, cost efficiency, transparency, and enhanced control over investments (Jayaprakash Reddy & R, n.d.) & (Udainia & Kumar Agarwal, n.d). On the other hand, concerns related to cybersecurity, data privacy, digital illiteracy, and regulatory uncertainty continue to affect investor trust and adoption. (Qi, 2023) emphasises the need for robust regulatory frameworks and security mechanisms to ensure sustainable growth of FinTech ecosystems. Additionally, the digital divide remains a critical issue, limiting the inclusiveness of technological advancements.

Research Gap:

Although research on FinTech has been growing, many gaps remain. First, most existing studies analyse FinTech adoption from distinct perspectives, without jointly exploring factors such as adoption, usage, platform characteristics, perceived benefits and challenges, and their combined effects on behavioural outcomes such as investment behaviour, trading behaviour, and risk perception. Second, although there are some empirical studies at the individual level for developed markets, there is a dearth of research for emerging markets. Third, there is a scarcity of integrated research on the Indian market.

Objectives:

1. To identify the benefits and challenges of fintech adoption.
2. To analyse how fintech innovations influence retail investor behaviour.
3. To evaluate the impact of fintech tools on risk perception and trading decisions.

Research Hypotheses:

H1: The frequency of FinTech platform usage has a significant positive impact on the investment behaviour of retail investors.

H2: FinTech features (such as analytics, AI recommendations, and notifications) significantly influence the trading decisions of retail investors.

H3: Perceived benefits and challenges of FinTech platforms significantly affect the risk perception of retail investors.

Research Methodology

This study employs a quantitative, descriptive research design to investigate the influence of FinTech adoption on retail investor behaviour and decision-making. The target population consists of individual investors who actively utilise online financial platforms for investment purposes, with the sampling unit confined to retail investors situated in Surat city. A sample of 102 respondents was selected through a convenience sampling technique to ensure accessibility and feasibility. Primary data were collected via a structured questionnaire designed to capture key constructs related to FinTech usage, platform features, perceived benefits, challenges, and behavioural outcomes. The collected data were analysed using SPSS software, employing reliability analysis (Cronbach’s Alpha) to assess the internal consistency of the measurement scales, followed by regression analysis to evaluate the relationships between FinTech variables and dependent outcomes, including investment behaviour, trading decisions, and risk perception.

Data Analysis and interpretation

Demographical Profile of the Respondents

Demographical Factors	Variables	Responses	Percentage
Age	Below 20	18	17.6%
	21-30	32	31.4%
	31-40	24	23.5%
	41-50	23	22.5%
	Above 50	5	4.9%
	Total		102
Gender	Male	56	54.9%
	Female	46	45.1%
	Other	0	0%
	Total	102	100%
Education Level	Undergraduate	17	16.7%
	Graduate	35	34.3%
	Postgraduate	44	43.1%

	Others	6	5.9%
	Total	102	100%
Occupation	Below ₹25,000	17	16.7%
	₹25,001 – ₹50,000	27	26.5%
	₹50,001 – ₹1,00,000	35	34.3%
	Above ₹1,00,00	23	22.5%
	Total	102	100%

(Source: Primary Data)

Interpretation

The table showing the survey of 102 respondents reveals that most people surveyed are between 21 and 30 years old (31.4%), meaning they are mostly young. The group had (54.9%) males and (45.1%) females, which is a fairly even gender mix. In terms of education, most were postgraduates (43.1%) and graduates (34.3%), showing they are well-educated. Most people were in the middle-income range, especially ₹50,001–₹1,00,000 (34.3%). Overall, the respondents were mainly young, educated, and middle-income, making them suitable for studying FinTech adoption.

Test of Reliability

Construct	No. of Items	Cronbach's Alpha	Interpretation
Investment Behavior	4	0.843	Good
Risk Perception	2	0.824	Good
Trading Decisions	2	0.736	Acceptable
Benefits	4	0.812	Good
Challenges	3	0.767	Acceptable

(Source: Primary Data)

Interpretation

The evaluation of reliability indicates that all constructs exhibit satisfactory to strong internal consistency. Investment Behaviour ($\alpha = 0.843$), Risk Perception ($\alpha = 0.824$), and Benefits ($\alpha = 0.812$) show strong reliability, while Trading Decisions ($\alpha = 0.736$) and Challenges ($\alpha = 0.767$) demonstrate satisfactory reliability. Since all Cronbach's Alpha values are above 0.7, the measurement scales are considered reliable and suitable for further analysis.

Regression Results and Hypothesis Testing;

Hypothesis	Predictor	β (Standardised)	t-value	p-value	R ²
H1	FinTech Usage	0.234	2.407	0.018	0.055
H2	FinTech Features	0.366	3.931	0.000	0.134
H3	Perceived Benefits	0.411	3.441	0.001	0.277
H3	Perceived Challenges	0.150	1.254	0.213	0.277

Note: Dependent variables include investment behaviour (H1), trading decisions (H2), and risk perception (H3)

Interpretation:

The regression analysis indicates that while FinTech usage positively affects investment behaviour, its impact is relatively weak ($\beta = 0.234$, $p = 0.018$; $R^2 = 0.055$), suggesting limited explanatory power despite statistical significance. Conversely, the features of FinTech have a more pronounced and highly significant influence on trading decisions ($\beta = 0.366$, $p = 0.000$; $R^2 = 0.134$), highlighting that the functionality of the platform is more crucial than just the intensity of its use. Additionally, the model assessing risk perception shows moderate explanatory power ($R^2 = 0.277$; $F = 18.935$, $p = 0.000$), with perceived benefits having a significant impact on risk perception ($\beta = 0.411$, $p = 0.001$), whereas challenges do not show statistical significance ($\beta = 0.150$, $p = 0.213$). Overall, these results suggest that the qualitative and perceptual aspects of FinTech have a greater influence on investor behaviour than the frequency of use, thereby supporting H1 and H2, and partially supporting H3.

Findings of the study

- FinTech platforms are widely adopted by young, educated, and middle-income investors, demonstrating strong uptake within this demographic group.
- Reliability analysis demonstrates that all variables in the study are consistent and reliable, supporting the validity of the results.
- The study reveals that the frequency of using FinTech applications has a positive and significant impact on investment behaviour, although the strength of the relationship is relatively weak.
- FinTech features such as analytics, AI-based recommendations, and real-time updates have a stronger and significant influence on the trading decisions of investors.
- Investors are more influenced by the quality and functionality of FinTech features rather than just the frequency of usage.
- The study finds that perceived benefits of FinTech platforms, such as accessibility, cost efficiency, and transparency, have a significant positive impact on investors' risk perception.
- However, perceived challenges such as technical issues, lack of knowledge, and information overload do not significantly influence risk perception.
- The results indicate that FinTech benefits and features play a more important role in shaping investor behaviour compared to challenges.
- Overall, the study confirms that FinTech innovations significantly influence investment behaviour, trading decisions, and risk perception of retail investors.

Limitation of the study

- The study is based on a limited sample size of 102 respondents lived in Surat city, which may not fully represent the entire population of retail investors.
- The study relies on primary data collected through questionnaires, and responses may be subject to personal bias or inaccurate reporting.
- The research considers only selected variables such as usage, features, benefits, and challenges, while other important factors influencing investor behavior may not be included.

Recommendations

- Financial institutions should enhance digital awareness programs to educate investors about fintech tools, risks, and benefits.
- Regulatory bodies should ensure clear guidelines and compliance to protect investors using fintech services.
- Strong cybersecurity and data protection systems must be implemented to increase investor trust in digital platforms.

Conclusion

The study concludes that FinTech innovations have really changed the way people do things and how they make money decisions. Using FinTech platforms makes it easier for people to invest and do things. The study found that most people who invest use FinTech services to help them manage their money and make decisions about what to do with it. Things like being able to look at numbers and getting advice from computers, and getting updates away are really important when people are deciding what to buy and sell. The study also says that people like FinTech because it is easy to understand, and they can use it from anywhere. These things help people understand what might go wrong with their investments.

The study also found that when things do not work right with FinTech or people do not know how to use it, or they get too much information, it does not really change how they think about what might go wrong. So the study says that using FinTech and what it can do and what is good about it are all connected to how people who invest behave, and what it can do and what is good about it has a greater impact than how often people use it.

To really get the things from FinTech, the people who run financial institutions should make the platforms better, help people know more about them and make sure they are easy to use so people can make good decisions about their money. They should focus on making FinTech platforms so people can use them easily and make good choices about their investments, and this is what FinTech is all about making things easier for people who invest.

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