



An Evaluation of Technology's Effect on Drivers of Investor's Preferences for the Debt and Equity

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Abstract

The geographic landscape of investments has shifted dramatically due to the rise of financial technology, or FinTech, which has affected investor preferences and decision-making processes for both debt and equity investments. This study aims to evaluate the impact of technology innovations, such as financial apps and online platforms, on investors' preferences for debt and equity securities. The study used a quantitative research methodology that encompasses statistical analysis and questionnaires to examine the impact of FinTech services on investors' risk perception, return expectations, mindfulness, and accessibility to investment options. The findings show that there is a favourable perception of the use of online investment platforms and FinTech software/platforms for investigating and understanding investment opportunities, particularly about debt and equity investments.

Keywords: FinTech. Debt Securities. Risk Perception. Return Expectations. Investor Preferences.

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1 Introduction

Within the constantly changing realm of global finance markets, the influence of technology on investment decision-making has increasingly become a prominent factor. Fintech or financial technology is a relatively new subject in the literature but commonly cited as one of the most important innovations in the financial industry (Hastings & Tejada-Ashton, 2013). As technological advancements continue to reshape the financial industry, investors are faced with a myriad of options when it comes to allocating their capital. Over the past two decades, the government of India in coordination with Reserve Bank of India (RBI) has taken up many initiatives to achieve the objective of financial inclusion (Inderst, Kaminker, & Stewart, 2016). This research paper delves into the empirical evaluation of how technology impacts the key drivers of investors' preferences for debt and equity securities.

Fintech has a cross-disciplinary nature.(see figure 1).The intersection of finance and technology, often referred to as "fintech," has given rise to a plethora of tools and platforms that facilitate investment processes. From algorithmic trading and robo-advisors to blockchain technology and crowdfunding platforms, the ways in which investors interact with financial markets have undergone substantial transformations. Consequently, it becomes imperative to understand the nuanced ways in which these technological advancements influence the factors that drive investors' choices between debt and equity instruments.

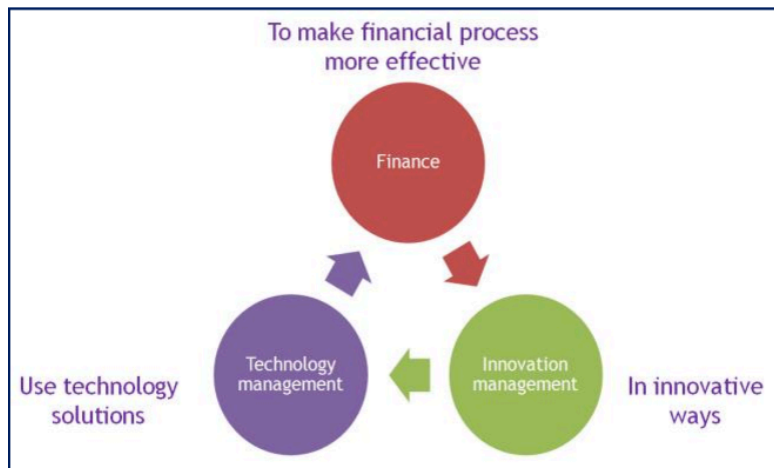


Figure 1. FinTech is a cross-disciplinary subject

Fintech or financial technology, has rapidly transformed the landscape of the finance sector, including how retail investors approach investment behaviour. FinTech developments may also damage financial well-being by triggering impulsive consumer behaviour when interacting with financial technologies and platforms. For example, mobile apps could attract impulsive and unsophisticated individuals, who lack the necessary skills to forecast future preferences (dan Michael, 2022). Fintech services, such as online investment platforms, robot-advisors, and mobile banking apps, have provided retail investors with easier access to financial markets, increased transparency, and enhanced convenience. From mobile payments, robo-advising, app-based investing platforms, to online banking solutions, FinTech developments have impacted upon financial planning, financial well-being, and economic inequality (Kaur, Sharma, & Singh, 2024). These advancements have significantly impacted the investment behaviour of retail investors, shaping their decision-making processes, investment strategies, and risk tolerance. To provide the tools for better financial decision-making, one must assess not only what people know but also what they need to know, and then evaluate the gap between those things. There are a few fundamental concepts at the basis of most financial decision-making (Iman, 2020).

One major impact of finch services on retail investors' investment behaviour is the democratisation of investment opportunities. Previously, traditional banking services often required significant minimum investments, complex paperwork, and long processing times, which limited access to financial markets for retail investors. However, with the advent of fintech services, retail investors can now easily open investment accounts with low or no minimum investment requirements, access a wide range of investment options, and conveniently manage their investments online or via mobile apps. This has empowered retail investors to participate in the financial markets and make investment decisions based on their own preferences and financial goals. Due to reasons like rising internet penetration, smartphone use, government programs like Digital India, and the growth of digital payments, fintech investments, software development, and platforms have increased significantly in India in recent years. The government's goal for a cashless economy and the widespread use of smartphones have contributed to the exponential growth of the digital payments market in India. The National Payments Corporation of India (NPCI) changed the game by introducing UPI, which makes peer-to-peer and peer-to-merchant transactions easy and quick. Businesses such as Paytm, Google Pay, BharatPe, and PhonePe (owned by Walmart) have amassed substantial market share by providing easily navigable mobile payment applications that address a range of requirements, including online shopping, bill payments, and retail transactions. These platforms now offer entire financial solutions since they have incorporated extra services like insurance, wealth management, and utility bill paying.

By utilising technology to expedite lending procedures and more precisely determine

creditworthiness, fintech lending platforms have responded to the credit needs of both individuals and small enterprises. Peer-to-peer networks provide direct lending between individuals, providing investors with larger returns and borrowers with better interest rates than traditional financial institutions. Digital lending platforms have surfaced as substitute credit providers, especially for marginalised demographics. From the business point of view, the future developments of FinTech technologies should, directly or indirectly, relate to improving information sharing process, lowering transaction costs, enabling new financing alternatives, or supporting better financing decision making. To evaluate risk and provide customised lending products, they make use of data analytics, machine learning, and other credit scoring techniques. Due to their ability to provide credit to people who might not have had easy access to traditional banking services, these platforms have been essential in promoting financial inclusion.

2 Objectives of the Study

- To assess the level of environmental awareness and technology adoption among Small and Medium Enterprises (SMEs).
- To examine the extent of implementation of green innovations within SMEs.
- To investigate the relationship between green innovations and environmental awareness among SMEs.
- To analyze the impact of green innovations on technology adoption within SMEs.

3 Literature Review

In the study by Asif et al.'s (2023) the authors investigate the impact of fintech services on the investment behavior of retail investors in the banking sector. The study analyzes the role of fintech services in shaping the investment decisions of retail investors, including factors such as ease of access, convenience, and user experience. The authors highlight the increasing use of fintech services in the banking sector and its influence on the investment behavior of retail investors." Tidjani and Madouri's (2024) examine the impact of fintech on financial behaviour, with a particular focus on financial inclusion and financial education. The authors explore how fintech services, including investment-related services, have the potential to improve financial inclusion and promote financial education among retail investors. The study emphasizes the role of fintech in increasing access to investment opportunities for retail investors and enhancing their financial literacy.

According to Jack and Suri's (2014), advancements in financial technology could offer more efficient and cost-effective solutions by reducing transaction costs. By lowering the expenses related to alternative payment methods, this also aids micro and small businesses in growing their sales (JHAVERI & KORGAONKAR, 2024). After carrying out an em-

empirical analysis of mobile money, Aron's (2018) discovered evidence which is supporting the idea that mobile money can improve risk-sharing. Other notable research, including those by Mbiti and Weil's (2013) and Wieser et al.'s (2019) show that a growth in fintech usage is associated with a decrease in the use of unofficial savings methods and an increase in the volume of remittance transactions.

Technology entered the banking industry in the 1960s under the moniker "Banking IT," which denoted digital systems developed to ease information flow both inside and outside of the company (Panos & Wilson, 2020). However, Lee and Shin (2018) contended that the 1990s saw the spread of the internet, which they claimed was responsible for the development of finance, the collection of technologies that allowed for the online provision of services like banking, trading, and insurance. At this time, the information craze spurred innovation to replace labour intensive human interaction with sophisticated algorithms and generalised automation, resulting in less expensive "Fintech " dates to the 1990s, when Citigroup's predecessor used it for the Financial Services Technology Consortium, which shared innovations across market participants (Vu, Nguyen, & Duc, 2024). Four reasons, according to Alt, Beck, and Smits's (2018), contributed to the evolution of fintech into what it is today:

1. The consequences of the global financial crisis, which forced financial institutions to maintain high capital requirements, forbidding smaller and riskier investments and compelling the direct identification of profitable products/services;
2. Shifts in the behaviour of banking clients, as the generation that follows is better informed due to the increased use of digital channels, which is both expected and transparent;
3. The incorporation of high-tech hardware into everyday life, such as smartphones and tablets, which sparks a frenzy of software distribution; and
4. The rise of non-banks, which attempted to create new business models that their previous incumbents did not provide. By moving the emphasis from the organization to the consumer, these drivers revitalised an otherwise antiquated and bureaucratic sector of the economy.

Technology affects equity-based returns differently in each industry and has been more influential in transforming some than others. Automate, information, and transform are the three major categories into which these studies classify the strategic responsibilities of IT (Armstrong & Sambamurthy, 1999). Businesses usually employ IT to replace human labour in automation sectors. IT's primary function in informatics sectors is to supply data that engages workers and gives senior management more influence. IT profoundly alters

market structures and business models in transformative industries, making conventional business techniques obsolete.

A growing body of research, Financial literacy has an impact on financial well-being, and differences in early financial knowledge can explain a significant amount of adult financial and overall well-being (dan Michael, 2022). Financial technology, or FinTech, is revolutionising the financial services industry at a pace never seen before. There are differing views on how FinTech will likely impact people's social welfare, wellbeing, and personal financial planning. Examples of these initiatives include financial education and informed financial advice. This special issue presents seven new studies that come from four concurrent streams of literature about responsible finance and financial literacy, addressing this significant academic and policy priority. Further, Ramdhan, Bujang, and Muhamat's (2023) investigated the impact of fintech services on investment decision-making, focusing on peer-to-peer (P2P) lending. The study examines how the availability of fintech services, such as P2P lending platforms, influences the investment decisions of retail investors. The authors highlight the potential benefits and risks associated with fintech services in the context of investment decision-making. Moreover, in the study by Vu, Nguyen, and Duc's (2024) examined the impact of fintech services on investment behaviour among retail investors in Vietnam. The study explores the factors that influence retail investors' decision to use fintech services for investment purposes, and the effects of fintech services on their investment behaviour. The authors provide insights into the adoption and impact of fintech services in the investment landscape of Vietnam.

FinTech innovations have an impact on financial planning, financial well-being, and economic inequality. Examples of these innovations include mobile payments, Robo-advising, app-based investing platforms, and online banking solutions. FinTech can improve one's capacity to manage money. In addition to creating the next wave of financial tools, start-ups and platforms that leverage technology to expedite financial planning procedures and simplify personal finance are also promoting and enabling financial education. Furthermore, the development of supply-side solutions that improve financial literacy and lessen disparities among demographic groups depends in large part on the involvement of financial institutions, businesses, and entrepreneurs. Research and practice in financial literacy should aim to comprehend how to enhance the design and delivery of financial education to increase its efficacy (Iman, 2020). Following the FinTech age, financial inclusion depends on visualisation and accessibility/user-friendliness. It has been demonstrated that people with little financial literacy make different decisions depending on how financial information is presented (Bouri et al., 2017).

In this systematic review of literature, the authors examine the role of fintech in investment decision-making (Rathod & Arelli, 2013). The study provides an overview of existing research on the impact of fintech on investment behaviour, including the role of

fintech services in influencing the investment decisions of retail investors. The authors analyse the findings of previous studies and identify key trends and gaps in the literature related to fintech and investment behaviour. Most Indian financial institutions monitor the sector and strive to learn from others' experiences (Inderst, Kaminker, & Stewart, 2016). Fast change and mobile money are about to be adopted by Indian MFIs as they prepare to relaunch, while new players are looking at possible collaborations and alternatives. In India's poor regions, there is a notable dearth of access to financial services due to several institutional flaws and other problems. As technologies mature and scale up, debt financing becomes more prevalent, especially for asset-based investments (Jack & Suri, 2014).

Advancements in financial technology could offer more economical and effective solutions by reducing transaction costs (Vial, 2019). By lowering the expenses related to alternative payment methods, this also aids micro and small businesses in growing their sales. Determining all the opportunities and challenges for every stakeholder is crucial. Most Indian financial institutions monitor the sector and strive to learn from others' experiences (Inderst, Kaminker, & Stewart, 2016). Fast change and mobile money are about to be adopted by Indian MFIs as they prepare to relaunch, while new players are looking at possible collaborations and alternatives. In India's poor regions, there is a notable dearth of access to financial services due to several institutional flaws and other problems. Because people aren't taking advantage of their own economic prospects, the economy can't expand to its full potential.

4 Research Methodology

The objective of the study is to identify the various fintech services being utilized by investors and to assess the Impact of Technological Advancements on Investor Awareness. Traditional financial services have been disrupted by the rise of financial technology, or fintech changed options for investors. The impact of fintech services on investor behaviour in the banking sector is uncertain and needs further investigation to understand the effects of fintech adoption on their investment choices. Structured questionnaires were utilised to collect information from individuals working in the automobile industry. The survey included closed-ended questions using Likert scales to obtain quantitative data. A convenient sampling technique was used to select a sample of 100 individuals for the study.

Sample Size and Design: A sample size of 100 individuals was chosen using convenient sampling techniques

Table 1. Age

	Frequency	Percentage
18-24	12	12
25-34	25	25
35-44	29	29
45+	34	34

4.1 Discussion And Analysis

The age distribution data indicates the majority falling within the 25-44 range, constituting a whopping 54% of the sample group.(see table 1). Notably, individuals aged 45 and above comprise a significant portion, accounting for the total 34%. This distribution suggests a diverse demographic, potentially offering valuable insights into various age-related perspectives or behaviours.

Table 2. Education Level

	Frequency	Percentage
SOME COLLEGE/ASSOCIATE DEGREE	26	26
BACHELOR'S DEGREE	29	29
MASTER'S DEGREE	18	18
DOCTORAL DEGREE	27	27
TOTAL	100	100

The data on education level demonstrates an, like, even distribution among the surveyed population, with bachelor's and doctoral degrees being the most prevalent, each representing 29% and 27%, respectively.(see table 2). Additionally, individuals, like, with some college or associate degrees, comprise 26%, while those with master's degrees constitute 18%, like, of the total sample; This distribution suggests a diverse educational background among respondents, potentially offering varied perspectives and insights within the surveyed population.

Table 3 represents what extent do you believe Fin-Tech Software/ Platform contributes to Improving and Understanding Debt & Equity Investments?. Futher Table 4 reflects on how often/Likely do you use online Investment Platforms to Reach Investment Options.

Table 3. To what extent do you believe Fin-Tech Software/ Platform contributes to Improving and Understanding Debt & Equity Investments?

	Frequency	Percentage
STRONGLY DISAGREE	10	10
DISAGREE	19	19
NEUTRAL	21	21
AGREE	24	24
STRONGLY AGREE	26	26
TOTAL	100	100

Table 4. How often/Likely do you use online Investment Platforms to Reach Investment Options.

	Frequency	Percentage
NOT AT ALL	8	8
SLIGHTLY	12	12
MODERATELY	15	15
VERY MUCH	30	30
EXTREMELY	35	35
TOTAL	100	100

The table 5 presents survey results on the level of trust and belief in online platforms' ability to provide better access to investment opportunities, both in debt and equity. The respondents were categorized into five levels of trust: "Not at all," "Slightly," "Moderately," "Very much," and "Completely." The frequencies and corresponding percentages for each category are as follows: 12 respondents (12%) reported no trust at all, 14 respondents (14%) indicated slight trust, 17 respondents (17%) had moderate trust, 27 respondents (27%) expressed a strong belief, and 30 respondents (30%) had complete trust. The total number of respondents was 100, ensuring that the percentage values directly correspond to the frequency values. The data suggests a generally positive perception, with the majority of respondents (57%) expressing significant trust (either "Very much" or "Completely") in online platforms for accessing investment opportunities. Additionally, Table 6 illustrates the extent to which respondents believe their awareness of debt and equity has changed. The survey results are categorized into five levels: "Strongly Disagree," "Disagree," "Neutral," "Agree," and "Strongly Agree." The frequencies and corresponding percentages are as follows: 11 respondents (11%) strongly disagree that their awareness has changed, 15 respondents (15%) disagree, 19 respondents (19%) are neutral, 30 respondents (30%)

agree, and 25 respondents (25%) strongly agree. The total number of respondents is 100, making the percentage values directly proportional to the frequency values. This data indicates that a significant portion of respondents (55%) agree or strongly agree that their awareness of debt and equity has increased, suggesting a general trend towards improved understanding in these areas among the surveyed group.

Table 5. Do you trust & believe that online platforms provide better access to investment opportunities (Both Debt & Equity)?

	Frequency	Percentage
NOT AT ALL	12	12
SLIGHTLY	14	14
MODERATELY	17	17
VERY MUCH	27	27
COMPLETELY	30	30
TOTAL	100	100

Table 6. To what extent do you believe YOUR AWARENESS OF DEBT AND EQUITY HAS CHANGED?

	Frequency	Percentage
STRONGLY DISAGREE	11	11
DISAGREE	15	15
NEUTRAL	19	19
AGREE	30	30
STRONGLY AGREE	25	25
TOTAL	100	100

4.2 Hypothesis Testing

H0: there is no significant difference between fin-tech awareness among different education level The t-test has been illustrated in table 7:

After calculation the outcomes of the statistical study expose a significant difference in awareness levels among individuals that have various levels of. This is supported by the test statistic value of 0.000 and a p-value of 0.05, which is frequently used as the threshold for identifying statistical importance in research. Because the p-value (0.05) is less than the significance level (usually set at 0.05), it reveals that there is a statistically meaningful variation in awareness levels based on educational achievement. So, we have to deny the

Table 7. T-test Results(Education Level)

Paired		Differences			t	df	Sig. (2-tailed)
Mean	Std. Deviation	Std. Error Mean	95% Conf Int				
			Lower	Upper			
0.9252	1.2416	0.1200	-0.6873	1.1632	-7.708	106	0.000

void hypothesis (H0), and the information proposes that educational attainment impacts awareness levels!

H1: there is a significant difference between fin-tech awareness levels among different age groups.(see table 8).

Table 8. T test results(Age)

	'Mean'	'N'	'Std. Deviation'	'Std. Error Mean'
Age	1.804	107	1.0041	0.0971
Pair 1 Fully Aware	3.4012	107	1.0081	0.0975

Table 9. Paired Differences in Awareness Levels by Age Group

Paired		Differences			t	df	Sig. (2-tailed)
Mean	Std. Deviation	Std. Error Mean	95% Interval Difference				
			Lower	Upper			
1.5981	1.3931	0.1347	-1.3311	1.824	-11.866	106	0.000

5 Results

Upon analysing the t-test results, it was found that there is a significant difference in awareness levels among different age groups. The calculated value is 0.000, and the p-value stands at 0.05 Moreover, the extremely low p-value of 0.000 indicates the likelihood of obtaining such extreme results by pure chance alone is very low. This leads to the rejection of the null hypothesis (H0), which posits no variation in awareness levels among age groups. The computed value of 0.000 suggests that the variation in awareness levels

between age groups is statistically significant. Thus, it is more probable that the observed difference in awareness levels reflects a genuine difference in the population than being a result of random sampling error.(see table 9). Age is one factor that influences the use of Fintech services. With these findings, it's crucial to acknowledge the impact of age on awareness levels and how it influences the utilisation of Fintech services. Nonetheless, further studies are necessary for a comprehensive understanding of these relationships.

6 Conclusion

In recent years, the fintech sector has experienced significant growth, driven by new startups and technological advancements that have reshaped banking and finance. Projections suggest that this trend will continue, with a focus on offering comprehensive financial services and overcoming traditional obstacles like high fees and regulatory burdens. Consequently, there is potential for future research to explore how traditional banks perceive their role in this evolving landscape, emphasising the need for collaboration with innovative entrepreneurs to stay competitive and integrate new technologies effectively. However, alongside the benefits of technology-driven investing, there are notable challenges to consider. Firstly, investors must possess a level of technological literacy to navigate online platforms and utilise data analytics securely. Additionally, managing risk is crucial, as easy market access can lead to uninformed decision-making. Cybersecurity is a major concern, requiring robust measures to safeguard personal and financial data. Lastly, increased market volatility, influenced by retail investor sentiment and algorithmic trading, demands careful consideration and informed decision-making from investors.

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