


# Chapter 6


## Trust Challenges in AI–Driven Fintech: Navigating the Ethical Frontier

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### ABSTRACT

*This study explores the ethical, security, and privacy challenges faced by financial technology (Fintech) organizations. It highlights the critical role of ethics in leveraging artificial intelligence (AI) technologies to foster customer trust and loyalty. A systematic review of available literature was employed to analyze empirical data addressing Fintech challenges for customer privacy and ethical concerns. The study examines the factors influencing customer trust, such as real-time interaction, risk perception, and transparency. The outcomes highlight the need for consumer data protection and protection of the law, as well as trust through public disclosure. The study suggests implementations for managers about how to deploy the specialization between AI and analytical technologies in delivering personalized services, streamlining and saving the firm resources, and reducing service delivery costs.*

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## 1. INTRODUCTION

AI-powered Fintech has changed the landscape of financial services (Kour, 2025). Everything from fraud detection to customer service is through Algorithms- driven by AI (Kaur & Kour, 2025). This is a significant leap however this has raised some trust issues. Especially related to possible risks (McKnight & Chervany, 2002), trust becomes necessary when dealing with two parties. While trust has been seriously studied for over a few decades, it has become more important with the emergence and proliferation of the internet.

The absence of real-time interaction, the risk level, and the trust factor were significant customer concerns (Pavlou, 2003). Building and sustaining user trust is major challenge for disruptive technologies, including blockchain and AI. Companies are leveraging the potential of these technologies without undermining consumer trust. Fintech organizations could also benefit from integrating Artificial Intelligence and analytical technologies because of the customized services to their customers, resource optimization, and cost-cutting, thus providing them a competitive edge compared to other market players (Mars & Gouider, 2017; Kour, 2025).

Financial Technology (Fintech) is changing traditional modes of carrying out financial transactions (Madan & Kour, 2024). FinTech is broader than e-banking and digitalization; therefore, it is a practical application of advanced means to meet consumer needs. According to Park et al. (2016), there is a unique opportunity emerging by automation technology to advance finance in such a manner that it can enhance the value to customers and offer firms the ability to grow their revenues. The Reserve Bank of India's most recent report for April-September 2021-22 reveals the rapid advancement of digital payments and Fintech in India (Table 1). This chapter will explore the multifaceted trust challenges companies face after implementing AI-powered Fintech solutions.

*Table 1.*

Item	Volume (Lakh)			Value (Crore)		
	2019-20	2020-21	2021-22	2019-20	2020-21	2021-22
1. Large Value Credit Transfers – RTGS	1,507	1,592	2,078	13,11,56,475	10,55,99,849	12,86,57,516
2. Credit Transfers	2,06,297	3,17,868	5,77,935	2,85,56,593	3,35,04,226	4,27,28,006
2.1 AEPS (Fund Transfers)	10	11	10	469	623	575
2.2 APBS	16,747	14,373	12,573	99,048	1,11,001	1,33,345
2.3 ECS Cr	18.3	0	0	5,146	0	0
2.4 IMPS	25,792	32,783	46,625	23,37,541	29,41,500	41,71,037

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