

# Chapter 4

## Unveiling the Shadows: Understanding and Combating Fraudulent Services in the FinTech Landscape

**Preet Kanwal**

*University of Quebec in Montreal, Canada*

### **ABSTRACT**

*In an ever-evolving financial landscape, where FinTech is making commendable progress, one must be aware of the negative drawbacks that come with it as the opportunities for unscrupulous actors to exploit vulnerabilities and engage in fraudulent practices have expanded concurrently. This chapter discusses the negative influence of FinTech and explores various fraudulent services that have arisen due to technology's impact on finance. The aim is to examine the methods employed, associated risks, and outcomes of these deceptive activities while emphasizing effective strategies and recommended approaches for safeguarding ourselves against their harmful effects.*

### **INTRODUCTION**

#### **Overview of the Transformation in Financial Technology and Its Influence on the Domain of Financial Services**

A concise overview of the transformation in FinTech and its influence on financial services is presented. FinTech, short of financial technology, has brought profound changes in how people acquire and avail themselves of financial solutions. Specifically, FinTech refers to finance-related solutions that capitalize on advancements in information systems technology (Arner et al., 2015). Over time, there have been three distinct periods that distinguish different advancements in financial technology and alterations in the provision of financial services. The first era, known as FinTech 1.0 and from 1866 to 1987, witnessed substantial progress in technological infrastructure within the finance realm (Arner et al., 2015). This progress was instrumental in establishing global interconnectedness but relied heavily on traditional means to deliver financial services with only limited technology implementation. FinTech 2.0 emerged

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between 1987 and 2008 and represented a significant shift toward digitizing processes involved in providing financial services (Arner et al., 2015). Computerized systems and electronic networks became popular during this period, bringing enhanced efficiency to operations within financial institutions that recognized the value of incorporating technology. Subsequently, after the global economic crisis of 2008 came FinTech 3.0—the current phase characterized by startups and tech-driven companies challenging conventional finance routes (Giglio, 2022); these enterprises leverage advanced technologies like artificial intelligence, and blockchain solutions, referencing specific instances when advances such as mobile applications for money matters were introduced innovation into highly efficient ways demanding them wholly (Khan et al., 2018). The advancements brought about by the FinTech revolution have fundamentally transformed financial services. By combining Finance with cutting-edge technology, FinTech has opened access to financial solutions for individuals previously excluded from traditional banking channels. These innovations have led to the development of reliable and cost-effective digital platforms that empower anyone to seamlessly avail themselves of diverse financial services (Nathan et al., 2020).

Financial technology (FinTech) boosts financial inclusion by providing credit and financing to those who didn't have access before. FinTech has expanded credit availability through alternative and peer-to-peer lending platforms, enabling those previously excluded from traditional banking systems to obtain funding (Nathan et al., 2020). Nevertheless, the swift growth of FinTech has presented challenges for regulators and market participants alike. The advent of fresh approaches and business models in FinTech has sparked concerns regarding consumer protection, data privacy, and systemic risks (Arner et al., 2015). Regulators are responsible for promoting innovation and ensuring stability and integrity within the financial system.

To sum up, the realm of FinTech has brought about a revolution in the world of financial services through the sophisticated utilization of technology to provide inventive and reachable financial solutions. This groundbreaking transformation has unfolded throughout three distinct periods, with the present phase marked by the ascent of startups and tech-savvy businesses in this domain. FinTech has not only broadened financial inclusion and enhanced credit accessibility but has also posed significant challenges for regulators tasked with managing risks and securing consumers.

## **Introduction to the Rise of Fraudulent Services in the FinTech Ecosystem**

The emergence of FinTech has brought forth a plethora of advantages and advancements in the realm of financial services. Though, it has also given rise to deceptive schemes that exploit weaknesses within the FinTech ecosystem. Fraudulent activities in the FinTech domain present substantial hazards for consumers, financial institutions, and overall financial system stability. One particular technology that has played a dual role as both an instigator of innovation and a target for scams is blockchain. Serving as the foundation for numerous FinTech applications, blockchain technology offers transparency, immutability, and decentralization. However, it remains susceptible to security threats and attacks. Examining the safety measures employed by blockchain systems brings to light various vulnerabilities and documented instances of assaults directed at extensively used blockchains (Leong et al., 2017). These assaults encompass double-spending attacks, 51% attacks, and intelligent contract susceptibilities.

Understanding these security risks is crucial when developing resilient security measures to mitigate the dangers of fraudulent activities in the FinTech industry. In financial technology, deceitful services can take on various disguises. Identity theft, a prevalent form of fraud, involves crafty individuals stealing personal data to assume someone else's identity, gain unauthorized access to financial resources,

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