


# Chapter 6

## FinTech in Banks: Opportunities and Challenges

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### ABSTRACT

*There has been an extensive boost in the use of FinTech in the Banking sector during the last few years. This chapter provides a comprehensive overview of the new opportunities offered by FinTech to the banking sector, its prospective risks, and the possible challenges to be faced in its adaptation. The authors propose that the new opportunities of FinTech include better digital banking experience, personalized customer services, high-level data security, cost-effective, and efficient services. On the other hand, FinTech results in risks such as security risk, technical risk, regulation risk, financial risk, and reputation risk. Finally, they suggest that the possible challenges of FinTech are a technological adaptation, risk reduction, regulations, and human capital employment.*

### INTRODUCTION

The banking sector globally is witnessing a potential disrupt in terms of digital technology and FinTech evolution in the recent past. This change was driven by a host of factors including financial globalization, technological advancement, need for innovative business models, and the competition among service providers thrust to satisfy the rising customer expectations. The rapid rise of financial technology is driving the banking sector towards operational innovation in gaining a competitive sustainable advantage (Zhao, Tsai and Wang, 2019).

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## **FinTech in Banks**

FinTech enables banks to revamp their traditional business model of brick and mortar business model to technologically revolutionized ones. Technologies like Big Data Analytics, Artificial Intelligence (AI), Machine learning, Cloud Computing, Blockchain, Fog Computing, Crowdfunding and the like are changing how the banks are operating today. These technological and digital innovations can provide new business opportunities, by transforming how financial institutions create value and deliver products and services. FinTech innovations in banks are expected to reach far more beyond than what most people thinking about online banking as technological advancement in banks. This chapter will contribute to the existing literature as to how the data collected from customers at large is expected to change the worldwide banking system shortly. The detailed analysis of the potential challenges, opportunities and risks of FinTech will help stakeholders to further improve and enhance this innovation. Furthermore, it will open more avenues for future research to investigate unexplored areas in FinTech. With this background, this chapter presents a detailed outlook on the new opportunities offered by FinTech to the banking sector, its potential risks in integrating the FinTech applications with the existing systems, and the possible challenges to be faced in its successful implementation are outlined below. The most eye captured fintech applications used in banks but not limited to be discussed below.

### **Artificial Intelligence**

One of the most popular fintech application in financial services industry, AI includes chatbots and virtual assistants in enhancing customers banking experience, machine learning in anti-money laundering software, fraud detection and compliance. AI is expected to reduce the production cost and increase the revenue to a greater extent in banks.

### **Blockchain**

The blockchain technology enables faster and accurate payment process including cross border payments, corporate payments, inter and intra bank transfers with minimal errors. Blockchain enhances data security, decreased cost and increase the efficiency of the transactions and the marginal profits.

### **Cloud Computing**

Cloud computing solutions as a platform facilitates banks in storing, managing and accessing the data with high level data security. Cloud systems reduces infrastructure costs and helps banks to build resilient operations.

## **LITERATURE REVIEW**

FinTech, in general, can be defined as “technologically enabled financial innovation that could result in new business models, applications, processes or products with an associated material effect on financial markets and institutions and the provision of financial services”(Navaretti et al.,2017). FinTech in banking can be understood as the process of integrating or employing technology in banking products and services.

It was often believed that the history of FinTech dates back to the 17th century when telegraphs, railroads and steamships were utilized as channels for cross border financial transactions. (Thakor,

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