



Research on the Impact of Financial Technology on Traditional Banking Business and Coping Strategies

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Abstract. Under the wave of the digital technology revolution, financial technology, relying on the systematic integration of emerging technologies such as the internet, big data, artificial intelligence, and blockchain, is reshaping the ecological structure of the global financial industry. With the rapid development of financial technology, many innovations and transformations have been introduced into traditional banking operations. Financial technology innovation has had a profound impact on traditional banking operations, presenting both opportunities and challenges. This study examines the positive and negative effects of financial technology on conventional banks. It systematically diagnoses the weak links in traditional financial institutions in areas such as technology application, product iteration, and process reengineering. In response to these impacts, the study recommends focusing on strengthening technological innovation and digital transformation, optimizing business models and service innovations, among other dimensions, to help the banking industry achieve coordinated development in service quality and efficiency enhancement and digital transformation, providing decision-making support for traditional financial institutions to formulate technology-driven strategic transformation plans.

Keywords: Financial Technology, Traditional Banking Business, Response Strategies.

1 Introduction

In recent years, the rapid development of financial technology (FinTech), centered on big data, blockchain, artificial intelligence, and cloud computing, has profoundly reshaped the global competitive landscape of the financial industry. According to a 2023 report by the Bank for International Settlements (BIS), the global FinTech market has surpassed \$3 trillion, with mobile payment user penetration exceeding 75%. The net interest margin of traditional banks has narrowed to its lowest level in a decade. A McKinsey report indicates that the average return on equity (ROE) for global banks dropped to 8.2% in 2022, a nearly 30% decline compared to pre-FinTech disruption levels [1]. As the core subject of the financial system, the traditional banking industry is facing unprecedented challenges and opportunities in its business model, service efficiency and risk management capabilities. In this context, exploring the mechanism and evolution path of financial technology on traditional banks is not only related to the

digital transformation of the banking industry itself, but also of strategic significance to the stability of the financial system and the development of the real economy.

The rapid advancement of FinTech has exerted a comprehensive impact on traditional global banks, reshaping the financial landscape through technological disruption and scene penetration. In the payment sector, digital wallets (such as Alipay and PayPal) have captured over 50% of the global transaction share, diminishing the value of banks' payment entry points. Blockchain and robo-advisory services further erode traditional intermediary income through data-driven, agile services. Faced with customer attrition and technological gaps, traditional banks are accelerating the opening of APIs and digital banking initiatives. For instance, the Industrial and Commercial Bank of China (ICBC) has enhanced its competitiveness through a "cloud computing + distributed" system upgrade. Currently, China has become the world's largest banking market. According to the People's Bank of China, China's mobile payment transaction volume reached 526 trillion RMB in 2023, with user penetration climbing to 87.3%. Alipay and WeChat payment duopoly account for 94% of the third-party payment market.

In this context, traditional banks must strengthen financial innovation, elevate the innovation level of banking services, and cultivate high-quality FinTech talent to drive transformative changes in conventional banking operations and enhance their competitive edge. FinTech refers to the industry that utilizes advanced technologies (such as artificial intelligence, blockchain, big data, cloud computing, and the Internet of Things) to innovate or optimize financial products, services, processes, and business models. Its core objective is to improve financial efficiency, reduce costs, expand service coverage, and facilitate the digital transformation of traditional financial systems. The scope of FinTech encompasses multiple domains, including but not limited to payment services, asset management, lending and financing, insurance technology, financial markets and trading, risk management, and compliance [2]. The development of FinTech in China is characterized by rapid growth, policy support, diverse application scenarios, intense market competition, and regulatory oversight [3].

Traditional banking services refer to the services provided by financial institutions with deposit and loan, payment and settlement, and financial advisory services as their core businesses. These services are typically conducted through physical branches and counters, emphasizing a face-to-face service model, and are characterized by high customer trust.

2 The Impact of Fintech on Traditional Banking Business

On one hand, fintech can enhance banking financial stability by decentralization, increasing transparency and efficiency, reducing financial frictions, improving information accessibility, expanding financial service channels, and enhancing convenience. On the other hand, fintech also poses risks to financial stability by increasing banks' risk exposure, amplifying crisis contagion, exacerbating volatility, and reinforcing procyclicality [4].

2.1 Positive Impacts of Fintech on Traditional Banking Business

Fintech is significantly transforming traditional financial business processes, particularly in loan approval and risk assessment, through technologies such as artificial intelligence (AI) and robotic process automation (RPA). These technologies not only reduce processing time but also minimize human errors, thereby improving the efficiency and accuracy of banking operations.

Reducing processing time and improving efficiency. The development of fintech can decrease the time commercial banks spend on daily problem-solving or transaction processing. From the perspective of commercial banks, they can leverage the advantages of fintech to optimize their procedures. For instance, in cross-border payments using blockchain technology, the traditional process relies on the SWIFT network and multiple intermediary banks, taking 3-5 days with high fees. However, by optimizing the payment process with fintech, blockchain enables peer-to-peer real-time settlement, significantly reducing transaction completion time.

It also reduces the time consumed by manual handling of complex operational processes, thereby improving business processing efficiency. Minimizing human errors and enhancing accuracy. In addition to reducing processing time and improving efficiency, the application of fintech helps minimize human errors and enhance accuracy. RPA simulates human operations to perform high-repetition, rule-based tasks, such as data entry and report generation, thereby reducing manual intervention and human errors. For example, in loan approval, RPA can automatically verify applicants' identity information and credit records, ensuring data accuracy and consistency.

This automated approach not only improves work efficiency but also reduces risks caused by human oversight, thereby enhancing the accuracy of business processing. Improving customer experience through digital technology. The introduction of digital technology in fintech not only enhances internal operational efficiency but also improves customer experience. For instance, through self-service terminals and intelligent approval systems, customers can quickly complete account opening and transfers, reducing waiting times. Additionally, banks have upgraded fast payment services for bank cards, increasing the convenience of online payments.

They have also accelerated the offline promotion and layout of smart POS machines and the upgrade of public transportation card readers, significantly enhancing customers' practical experience and attracting more customer groups.

This has created new business growth points for commercial banks in payment settlement and bank card-related services [5].

Reducing operational costs. Fintech reduces reliance on human resources through automation, thereby lowering operational costs. Tellers play a significant role in traditional banking operations, but fintech can develop these various types of businesses as a whole and participate in subsequent operational maintenance, greatly reducing labor costs. This effect of economies of scope drives the continuous development of commercial banks. Additionally, commercial banks can reduce fixed asset investments such as offline branch networks to cut daily expenses, while automated processes also increase productivity, allowing employees to focus on more valuable tasks.

2.2 Negative Impacts of Fintech on Traditional Banking Business

The rapid development of fintech has had a profound negative impact and disruption on traditional banking services, primarily reflected in the following aspects:

Increased operational risks. Fintech has altered traditional banking business models through innovative technologies such as mobile payments, blockchain, artificial intelligence, and big data analysis. With societal progress, some emerging enterprises have leveraged fintech to reform, upgrade, and optimize traditional banking's payment and settlement services, establishing third-party payment platforms that offer more convenient, faster, and low-cost services compared to commercial banks [5]. The rise of mobile payments and third-party platforms has reduced transaction costs, weakening traditional banks' dominance in the payment sector. Fintech companies have also attracted a large number of young customers with convenient services and personalized experience. This demographic values service experiences and tends to use fintech to access funds, information, and other services through more convenient channels [6]. Currently, using WeChat or Alipay allows for secure transactions with significantly reduced processing time and cumbersome steps, leading to some traditional bank customers being drawn to third-party platforms. The widespread adoption of mobile payments and digital wallets has caused customers to rely less on conventional bank branches, resulting in a noticeable decline in offline branch traffic. This trend forces traditional banks to reassess their service models and customer acquisition strategies.

Regulatory Environment and Data Security. With the rapid development of fintech, regulatory bodies have intensified their oversight of financial markets, driving the digital transformation of traditional banking services. This not only increases traditional banks' compliance costs but also forces them to adjust their business models to meet new regulatory requirements. If financial account information or transaction data is leaked, illegally obtained, or exploited, it can result in significant losses for both customers and financial institutions, potentially jeopardizing users' financial stability and reputation, thereby having a substantial negative impact on traditional banks [7].

3 Countermeasures to Address the Impact of Financial Technology on Traditional Banking Business

The rapid development of financial technology has brought unprecedented impacts to traditional banking businesses. Faced with these challenges, traditional banks need to adopt a series of response strategies to maintain competitiveness and achieve sustainable development. The following provides a detailed analysis of traditional banks' strategies to cope with the impact of financial technology from multiple perspectives:

Strengthen technological innovation and digital transformation. The core competitiveness of financial technology lies in its ability to innovate in technology. Traditional banks should increase their investment in technology, promote digital transformation, improve their operational efficiency and service quality, build basic capabilities to cope with the impact of financial technology and empower their technology.

Optimize business models and complement ecosystems. Traditional banks need to shift from product-centric to customer-centric, providing more personalized and intelligent services. For example, launching new financial services such as mobile payments, online loans, and digital wealth management to meet the needs of young customer groups. At the same time, banks should focus on scenario-based operations, integrate online and offline resources, and create a seamless customer experience. Moreover, traditional banks should also engage in deep cooperation with fintech companies to jointly develop new products and services. These innovative products and services meet the needs of different user groups, enrich the product portfolio, and enhance the competitiveness of banks.

Strengthen differentiation advantages and deeply cultivate customer value. Traditional banks need to adjust their organizational structure, such as collaborating with fintech companies to develop and absorb their agile innovation capabilities. At the same time, strengthen employee training to enhance the team's technical and innovative capabilities. Banks can establish dedicated innovation teams [8,9] to encourage employees to propose innovative ideas based on customer needs and customize differentiated products for customers. People can also transform offline branches into experience centers, providing complex business consulting such as large investments, cross-border finance, etc., enhancing customer stickiness, and exploring the value of different customers.

Pay attention to the development of inclusive finance. In the inclusive finance business of banks that have not applied financial technology, small and micro enterprises are usually abandoned as service targets from the perspectives of cost burden and business efficiency. Financial technology has promoted the popularization of inclusive finance, enabling small and micro enterprises as well as individual customers to access a wider range of financial services. Traditional banks should seize this opportunity and expand their service coverage through digital means to fill the supply gap in the traditional financial system.

Faced with the impact of financial technology, traditional banks need to make efforts in various aspects such as technological innovation, business model optimization, strengthening differentiation advantages, and the development of inclusive finance to enhance their competitiveness. At the same time, banks should actively embrace the opportunities brought by financial technology, explore new development paths, and occupy a favorable position in the financial ecosystem of the new era [10].

4 Conclusion

The rapid development of financial technology has had a profound impact on traditional banking business, bringing positive effects such as increased efficiency, reduced cost, and customer experience optimization, as well as challenges such as increased operational risks, customer churn, and intensified regulatory pressure. Research has shown that fintech has reshaped the business models and service processes of traditional banks through technological innovation, particularly in areas such as payments, loan approv-

als, and risk management. However, traditional banks still have shortcomings in technology application, business transformation, and talent reserves, and urgently need to respond to the impact of financial technology through digital transformation and strategic adjustments. As fintech develops, fintech products are becoming more intelligent, and financial services are of higher quality. However, some banks are not yet prepared to cope with the impact of financial technology. In this context, traditional banks must enhance their sense of crisis, strengthen financial technology innovation, optimize business models and services, promote changes in traditional banking business, and thus improve their market competitiveness. The integration of financial technology and traditional banks will be the mainstream trend in the development of the financial industry in the future. Traditional banks can only maintain their core competitiveness in fierce market competition and contribute to the stability of the global financial system and the development of the real economy by actively embracing change and accelerating transformation.

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