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Impact of FinTech on Commercial Banks

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Abstract: The rapid development of information technology has had a tremendous impact on financial institutions, especially commercial banks. In this process, fintech can help commercial banks improve service efficiency, innovate business models and reduce operating costs. However, it has also created challenges for the traditional business of commercial banks. The development of fintech will intensify the competition in the banking industry, raise the interest payment cost of banks, and reduce their profitability, thus increasing the risk of banks. This article analyzes the impact of fintech on commercial banks and the problems existing in the process, and puts forward suggestions and countermeasures for the development of commercial banks.

Keywords: FinTech, Commercial Banks, Internet Enterprise

1. Introduction

In 2016 the Financial Stability Board (FSB) defined the concept of fintech for the first time: fintech, which refers to financial innovation that relies on technology, is new products and services, new technological applications, and new business models that bring about changes in financial products and services, financial institutions, and financial markets, and encompasses both front-end financial industries and back-end technologies. Bofondi and Gobbi point out that FinTech has become a driving force and source for discovering new financial needs and services and creating social wealth. [1] Navaretti et al. suggest that FinTech is a foundational innovation that brings significant changes to the infrastructure of the financial system. [2]

Gomber et al. argue that FinTech provides feasible technological solutions for financial innovation, offering more intelligent and cost-effective financial services that are not limited by time and location, thus meeting thepreference choices of financial service demanders and increasing the marginal utilitylevel of financial consumers.[3] Chen et al. point out that the rise of fintech inevitably has a series of impacts on the traditional financial sector. [4] As the mainstay of the financial system, commercial banks are not only representatives of the traditional financial sector but also the entities most affected by fintech. This paper will analyze the impact of fintech on commercial banks from both positive and negative aspects respectively, and on the basis of this, put forward suggestions for how commercial banks can develop under the wave of fintech.

2. Positive Effects of Fintech on Commercial Banks

2.1. Improving Service Efficiency of Commercial Banks

Philippon argues that fintech can improves the efficiency of the financial industry. [5] The service efficiency of commercial banks also benefits from fintech, and the application of fintech is conducive to improving the service quality as well as theservice efficiency of commercial banks. The application of fintech enables commercial banks to gather customer information through big data analysis, which facilitates customer profiling for customized product offerings and targeted marketing. This approach not only reduces operational costs but also enhances marketing efficiency. Cloud computing providers can offer computing services to commercial banks at lower prices, increase the banks' online resources, and improve the reliability and availability of IT resources, thus enhancing the banks' ability and efficiency in providing services to customers. Artificial Intelligence can process large amounts of data, helping banks to better understand and utilize it; as well as increase service efficiency and reduce errors in the form of automated workflows. Blockchain technology is still under development, and its main applications in the financial sector are digital currencies, notes and supply chain finance, etc. Lee and Shin indicate that blockchain can help reduce transaction costs and improve transaction security.[6]

2.2. Promoting Business Model Innovation in Commercial Banks

The rapid development of financial technology has had a profound impact on several businesses of commercial banks. In order to maintain their competitiveness and profitability, commercial banks have begun to continuously explore new business models and development methods. For example, some banks have designed new credit products by establishing customer data analysis models. It is worth mentioning that commercial banks can cooperate with Internet enterprises. Firstly, in the area of payments and transfers, this type of cooperation can enhance the payment experience and improve the security of payments, as well as ensure that funds can arrive quickly when customers need them. Secondly, in the area of credit, Internet enterprises can work with commercial banks to provide credit services to their customers. For example, when purchasing a large item (such as a house or a car), Internet enterprises can refer customers to a commercial bank's lending department while providing additional revenue for both parties. Finally, Internet enterprises and commercial banks can enhance data sharing, which is conducive to improving customer experience and identifying risks. For instance, Internet enterprises can provide customer data to commercial banks to help them better understand customer needs and provide relevant services.

2.3. Reducing the Operational Costs of Commercial Banks

The application of fintech can reduce the operating costs of commercial banks. First, it reduces the operating costs of physical outlets. The operating costs of bank outlets account for about 60% of their operating costs. The application of financial technology can make most of the commercial bank's business processing to online, the bank can appropriately reduce the number of outlets, reduce the cost of setting up outlets as well as the cost of operation and maintenance. Secondly, it reduces the maintenance cost of the bank's internal IT department. In the traditional mode, the bank needs to invest a lot of human resources costs to maintain a stable IT operating environment, while cloud computing can solve the problem of unstable operation of the bank's IT environment. Because cloud computing technology can provide elastic computing and storage services, commercial banks can use cloud computing technology to improve the scalability and reliability of services while minimizing IT costs. Third, fintech can help to control staff costs. Personnel expenses have always been one of

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the largest operating costs for commercial banks, and the application of fintech can enable businesses that were originally handled offline to be transferred to online, which reduces the bank's physical outlets and the corresponding labor costs.

In addition, a large number of intelligent services as well as automated workflows can well replace manual services, thus saving labor costs.

3. Negative Effects of Fintech on Commercial Banks

3.1. Reducing Efficiency of Commercial Bank's Deposits and Loans

In the field of loan market, some Internet financial enterprises have posed severe challenge to commercial banks due to their advantage of data and technology. In China, for example, in the loan market sector, Alibaba Microloan, Tencent Webank Microloan, Baidu Microloan and so on have joined the loan grabbing war. Consumer credit products such as Ant Credit Pay, Jingdong White Bar and Vipshop Flowers allow consumers to make purchases on credit. Compared with traditional bank loans, the loan products launched by Internet enterprises not only do not require collateral, but also have a faster processing speed and relatively simple procedures. Loan applications, qualification reviews, and other procedures can easily be completed online, providing a hassle-free loan experience. For individuals and small and micro-enterprises who do not meet the strict credit application requirements of banks and are unable to obtain traditional bank loans, these credit products undoubtedly provide a better alternative. Obviously, Internet credit products cover a considerable portion of the long-tail population, and to a certain extent impact on the loan business of commercial banks and reduce the volume of their loan business.

In the field of deposits, various financial products of internet enterprises, such as wealth management products, P2P platforms, and crowdfunding platforms, are competing with banks for idle funds in society. The development of financial technology has driven internet enterprises to create new financial products. Furthermore, internet enterprises often have a natural interface with user traffic, connecting a large number of resident groups, and the financial products they launch are characterized by high liquidity, high returns, and low risk. Compared to bank wealth management products, the threshold for entry to internet enterprises' wealth management products is lower. For example, some wealth management products can be purchased for as little as 1 yuan, with China's Yu'ebao being the most typical example. For these reasons, an increasing number of residents are willing to put their savings into financial products such as Yu'ebao, leading to a decrease in deposits in commercial banks.

3.2. Reducing Commercial Bank's Non-interest Income

The development of fintech will lead to a decline in commercial banks' non-interest income. Third-party payment services have a significant impact on the non-interest income of commercial banks. On one hand, third-party payment services are convenient, fast, and have lower payment costs. On the other hand, compared to bank account-based payments, third-party payment services have a wider range of applications, such as small-scale payments for consumption and travel. These factors contribute to the strong customer loyalty of third-party payment services, which poses a challenge to the non-interest income of commercial banks.

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3.3. Increasing Risks for Commercial Banks

3.3.1. Technical Risk

While the development of financial technology has enhanced the technological capabilities of commercial banks, the corresponding technical risks should not be overlooked. Firstly, there is the challenge of data. Data plays a critical role in financial technology. However, different financial institutions have inconsistent data formats, and data from different regions may exhibit significant heterogeneity, requiring integration and cleansing efforts. Additionally, due to concerns over personal privacy and security, financial institutions' data is often subject to regulatory constraints. Secondly, there is the complexity of algorithms and models. The application of financial technology relies on complex algorithms and predictive models, such as machine learning and deep learning. These technologies require high domain expertise and extensive experience, as well as large amounts of data for training to improve model accuracy. Lastly, there is the cycle of technological innovation. Technology is the driving force behind financial technology. However, the cycle of technological innovation is often lengthy and requires substantial capital support, investment, and time. Pursuing technological innovation may entail high costs and risks, requiring iterative experimentation, adjustments, and validation to introduce viable solutions. Therefore, technological risks are unavoidable challenges for commercial banks in further applying financial technology.

3.3.2. Information Risk

The first is the risk of data leakage. Due to the nature of financial technology's activities being mostly conducted online, the issue of data breaches is particularly prominent. Hackers can gain access to users' personal information, account passwords, and other sensitive data through system attacks or vulnerability scans, resulting in financial losses and negative consequences for users. Secondly, there is the risk of false information. Some financial products on fintech platforms may use exaggerated and false advertising information to attract users' attention. This can lead to some consumers selecting financial products that are not suitable for them, resulting in fraudulent behavior and causing financial losses for consumers.

Lastly, there is the issue of privacy protection. When financial technology enterprises utilize big data technologies, there is a risk of infringing upon users' privacy. Improper handling of users' personal information and financial account management can lead to financial and emotional losses for users and may result in the leakage of personal privacy and credit records. These risks are detrimental to commercial banks' efforts to improve service quality and efficiency.

3.3.3. Talent Risk

Talent is the primary resource. In order for commercial banks to establish a strong position in future competition, they must prioritize the cultivation or attraction of talent. However, due to factors such as traditional corporate systems, organizational culture, and compensation, commercial banks may struggle to attract exceptional talents with diverse skill sets. In contrast, emerging fintech enterprises have advantages in terms of talent treatment, development, and promotion mechanisms, which enable them to form a strong competitive edge. For commercial banks to fully leverage the advantages of fintech, they require a significant number of talents with a combination of financial and technological expertise. Thus, commercial banks must pay attention to the talent risks they face and take proactive measures to address them.

4. Development Strategies for Commercial Banks in the Context of Fintech

4.1. Exploit Innovative Products and Improve Service Quality and Standards

In response to the challenge posed by various financial products launched by fintech enterprises to bank deposit and wealth management products, which may impact the liability business of commercial banks and increase their funding costs, banks can leverage their accumulated customer and data advantages, and combine them with fintech and other technologies to innovate their product offerings. On one hand, banks can collect and analyze customer behavior through big data analytics, to better understand customer needs and provide financial products that meet these needs. On the other hand, commercial banks should recognize the existence of a large number of untapped customers who are unable to enjoy financial services provided by conventional financial institutions. For this group of customers, banks can lower the investment threshold of wealth management products and enrich product offerings to meet their diverse financial needs. Additionally, banks can provide customized product services based on their understanding of customers. Broadening service channels and improving service quality and service level are equally important for commercial banks to enhance their own competitiveness. First is to improve offline services. Commercial bank outlets can rely on face recognition to assist customer service personnel to accurately serve customers, improving service quality and customer experience. In addition, in terms of business processing, automated processes, biometrics and other technologies can be applied to streamline operational steps, which shorten the length of time for business processing and improve customer experience. Secondly, enriching online services is another strategy. Banks should actively explore the development and product configuration of mobile banks, in order to improve the efficiency and customer experience of mobile banking. Third, strengthen the online and offline synergistic ability to improve efficiency as well as customer service experience.

4.2. Deepen Cooperation with Fintech Enterprises

With the rapid development of information technology, the relationship between fintech enterprises and commercial banks has evolved from competition to cooperation. Strengthening cooperation between the two can achieve resource sharing and mutual benefit. There are two ways for banks to cooperate with fintech enterprises. One is to set up a fintech subsidiary and rely on the strong funding and talent advantages of the parent bank for internal incubation. In China, Industrial Bank was the first bank to set up a fintech subsidiary, establishing the Xingye Digital Financial Services Co., Ltd. in 2015 which is committed to using cutting-edge technologies such as cloud computing, artificial intelligence, open APIs, process robots, and blockchain to provide digital transformation solutions and output fintech products and services for group clients. In addition, other Chinese banks have also established their own fintech subsidiaries. For example, China Merchants Bank has established CMB Wing Lung Technology Limited, and China Construction Bank has established CCB Fintech Co., Ltd. The other way is to strengthen cooperation with internet enterprises. Cooperation in payment and money transfer can improve the payment experience and security of commercial bank customers, and enable funds to be quickly credited when needed. In terms of credit, the combination of internet enterprises' technology and traffic advantages and commercial banks' capital operational experience can provide customers with more diverse and higher quality credit services.

4.3. Nurture Fintech Talent

Talent is the foundation of the development of commercial banks. Due to the complexity of financial services and products, a single talent is no longer sufficient to meet the needs of commercial banks.

Therefore, banks should focus on cultivating fintech talents to enhance their competitiveness in the field of fintech, which can be solved in the following aspects. First, strengthen academic cooperation, establish partnerships with universities and colleges, provide internships and research programs, support students to cultivate new fintech talents through the dual cultivation of work practice and academic education. Two, conduct in-house training and set up training programs within enterprises. Courses should include technical, business and basic financial literacy so that employees can transfer to new roles or departments and educate themselves if necessary. Three, set up scholarships and create some incentives for scholarships, training courses or certification qualification exams in the fintech field to attract more young people interested in entering the fintech field. Fourth, develop online courses that provide online access to fintech courses and resources so that students who do not have access to traditional classroom instruction or who need flexibility in their schedules can receive training and gain the knowledge they need.

5. Conclusion

In conclusion, the development of fintech has a positive impact on commercial banks. It can improve service efficiency, facilitate business model innovation, and reduce operational costs. However, it also brings negative effects such as challenging loan, deposit, and intermediary businesses of commercial banks, as well as risks related to technology, information, and talent. Faced with the impact and risks posed by fintech enterprises, commercial banks should actively respond and leverage the power of fintech. On one hand, they can collaborate with fintech enterprises to achieve mutual progress. On the other hand, they can establish fintech subsidiaries, utilizing their own resources. Furthermore, commercial banks should focus on cultivating fintech talent and optimizing the talent structure to ensure an appropriate balance between traditional financial professionals and new technology-oriented professionals. In summary, commercial banks need to utilize fintech to continuously enhance service efficiency, quality, and standards. They should innovate financial products with a customer-centric approach and improve their ability to serve customers.

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