

Research on the Development of Commercial Banks' Inclusive Finance under the Background of Financial Technology

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Abstract: In the era of digital economy, financial technology has become a key driving force for financial development. In response to this trend, commercial banks are deeply integrating technologies such as big data and artificial intelligence with inclusive finance, actively creating new models of digital inclusive finance, continuously deepening digital products and services, striving to expand the service boundaries of inclusive finance, and constantly improving the quality and effectiveness of inclusive financial services. This paper focuses on the empowerment of inclusive finance by financial technology, analyzes the problems existing in the development of commercial banks' inclusive finance, including challenges in risk management and control, prominent information asymmetry issues, severe homogenization of products and services, and deficiencies in inclusive finance support strategies. Subsequently, in response to the identified issues, corresponding countermeasures are proposed regarding the construction of inclusive finance credit system, innovation in financial products and services, the digital transformation of commercial banks, and enhancing the targeting and continuity of strategies. The aim is to help commercial banks achieve efficient and stable development of their inclusive finance business.

Keywords: Financial Technology; Commercial Banks; Inclusive Finance; Countermeasures

1. Introduction

In recent years, inclusive finance has shown a positive development trend in China, effectively alleviating the financing difficulties of small and micro enterprises and promoting economic growth. Commercial banks, as a crucial pillar of the financial system, play a significant role in the development of inclusive finance. With the rapid

development of information technologies represented by big data, artificial intelligence, and block chain, financial technology is reshaping the ecological landscape of the financial industry. Financial technology not only provides more efficient service means for commercial banks' inclusive finance business but also creates favorable conditions for breaking through traditional business bottlenecks. Currently, commercial banks still face many challenges when applying financial technology to develop their inclusive finance business. Therefore, discussing the development of commercial banks' inclusive finance under the financial technology background holds significant practical importance for promoting the sustainable development of commercial banks and facilitating the advancement of inclusive finance in China.

2. Overview of Financial Technology and Inclusive Finance

2.1 Financial Technology

With the vigorous development of science and technology, an increasing number of emerging technologies are being integrated into the financial sector, including block chain, big data, cloud computing, and artificial intelligence. The combination of finance and technology has given rise to financial technology. As an innovative technological field, financial technology has attracted significant attention since its inception. Financial institutions are reconstructing the entire business chain—including customer reach, risk management, and operational decision-making—by building digital neural center systems, forming dynamic optimization mechanisms based on real-time data flows. The depth of technology application has expanded to the level of strategic decision support, reshaping the paradigm of financial service provision while achieving decreasing marginal costs and multiplied operational efficiency. Typical

practices include asset allocation systems based on machine learning algorithms, smart contract platforms relying on block chain technology, and risk measurement models utilizing knowledge graphs.

Having evolved to its current state, financial technology now occupies an extremely important strategic position in financial development. The application of financial technology in commercial banks has brought disruptive changes to their business models, continuously impacting traditional banking practices and steering them towards digitization and technology empowerment.

2.2 Inclusive Finance

In China, inclusive finance primarily serves specific groups such as small and micro enterprises, farmers, urban low-income individuals, and impoverished populations. Following the direction of national economic policy, vigorously developing inclusive financial services has a positive impact on achieving national strategic goals like poverty alleviation and rural revitalization. Furthermore, this initiative can promote the healthy development of the financial services industry and exert positive effects on increasing employment rates, raising incomes, and improving residents' living standards.

Commercial banks' inclusive finance business targets small and micro enterprises, vulnerable groups, and rural populations as financial service objects, integrating previously marginalized groups into the formal financial system. This helps eliminate financial exclusion and allows more people access to necessary financial services. These services include, but are not limited to, inclusive small and micro finance, consumer finance, and initiatives for rural revitalization and poverty alleviation. The inclusive finance business of Chinese commercial banks mainly involves providing loan support to small and micro enterprises. According to the latest statistical caliber of the People's Bank of China, inclusive finance loans in China refer to loans granted to enterprises with a single-household credit line of RMB 10 million or less, and whose enterprise size classification meets the standards for small and micro enterprises. When lending to enterprises meeting these criteria, commercial banks can enjoy corresponding structural monetary policies, targeted reserve requirement ratio cuts, and tax

incentives, among others [1].

2.3 Application of Financial Technology in Inclusive Finance

In the past, banking operations were mostly conducted offline and face-to-face, with staff directly handling customer transactions at branches. Nowadays, technological means such as mobile banking, Quick Pass and intelligent customer service used by commercial banks have significantly improved their operational efficiency. Regarding commercial banks' inclusive finance loan business, risks are mitigated by optimizing customer risk assessment using big data, establishing risk management models during lending, and implementing comprehensive supervision of loan operations through post-lending risk prevention and control systems. The application of financial technology in inclusive finance covers areas such as electronic payments, online credit, online wealth management, and online credit investigation. Utilizing internet and digital technologies, it has significantly improved access to financial services for low-income groups, rural residents, and small and medium-sized enterprises.

Commercial banks' integration of financial technology into inclusive finance business has driven inclusive finance towards digitization, exhibiting the following characteristics. Firstly, the accessibility of financial services has improved. Digital inclusive financial service providers offer corresponding services for vulnerable groups and improve personal information systems through customer data collection. This assists the economic development of vulnerable groups, enables accurate assessment of customers' inherent economic risks, meets the demand for high-quality services, and consequently leads to a marked improvement in financial service accessibility. Secondly, the cost of financial services has decreased. As digital inclusive finance does not have substantial requirements for the physical layout of branches, both parties can access high-quality financial services simply by utilizing internet technology and communication devices. Thirdly, service efficiency has increased. Inclusive finance leverages information technology to build models that conform to reasonable internal operations and optimize service processes, thereby enhancing the speed and efficiency of

business handling [2].

3. Problems in the Development of Commercial Banks' Inclusive Finance

3.1 Challenges in Risk Management and Control

In recent years, the rapid growth of inclusive finance business has been closely related to regulatory targets mandating high growth rates for inclusive finance. Behind the achievement of these business targets lies the trend of banks expanding into county areas, targeting small and micro enterprise owners, and individual entrepreneurs to reach customers. However, while expanding their customer base, banks have not effectively controlled risks. The high proportion of collateral loans among newly added inclusive small and micro loans reflects an over-reliance on collateral as a primary tool, reducing the scrutiny of borrowers' actual operations and repayment capacity. If the value of collateral assets declines, the risk management of inclusive small and micro loans across banks will face severe challenges [3].

3.2 Prominent Information Asymmetry Issues

Inclusive finance target groups are mostly small and micro enterprises and grassroots populations with weak information disclosure capabilities. The authenticity of financial data is difficult to control, and cash flow information is hard to collect. This poses significant challenges for analyzing the operational status and repayment capacity of these groups, placing higher demands on verifying the truth and facts before lending. Banks differ in their ability to address information asymmetry. Large banks leverage their resource endowments, digital capabilities, risk control model development capacity, and pricing advantages to attract high-quality customers and those with guarantees or collateral, aiming to reduce expected losses by lowering the loss given default. While competing with large banks for high-quality customer segments, small and medium-sized banks are also forced to target even lower-tier markets. However, they are far inferior to large banks in terms of resource investment, digital capabilities, and risk control model development, leading to more severe information asymmetry and greater risks in their inclusive finance business. Greater risk implies a higher risk premium. However, increasing pricing makes it

even more difficult for small and medium-sized banks to acquire customer resources in the fierce competition [4].

3.3 Severe Product Homogenization

In recent years, the homogenization of products and services in the inclusive finance business of various banks has been very severe. For inclusive finance entities like small and micro enterprises, the availability and convenience of funds are crucial. Although banks offer products under different names, their underlying logic is similar, with only slight differences in maximum loan amounts and interest rates, indicating obvious homogenization. Large, medium, and small banks have failed to form an institutional system and business model characterized by differentiated competition and complementary advantages in the inclusive finance field, resulting in low resource allocation efficiency and service quality [5].

Large banks have obvious advantages in business product development and information technology but have not effectively utilized these advantages to explore new markets or compensate for the shortcomings of small and medium-sized banks' product development. Instead, they engage in homogenized competition with small and medium-sized banks for high-quality customers. Small and medium-sized banks, especially local corporate banks, possess "local" advantages such as branch networks and soft information. However, they have shortcomings in funding costs, deeply exploring local markets, and product development, making it difficult to meet the diverse and personalized financial needs of inclusive finance targets. The business advantages and financial technology strengths of large banks have not been effectively integrated with the "local" advantages of small and medium-sized banks for mutual promotion and complementation. Consequently, their loan targets converge, and product/service homogenization is severe. There is a lack of staggered competition and complementary advantages among banks of different sizes in the inclusive finance sector. Mostly, they adopt homogeneous business models to fulfill regulatory assessment tasks. The efficiency of resource allocation and the development of personalized inclusive finance business need enhancement.

3.4 Deficiencies in Inclusive Finance Support Policies

Over the years, relevant departments have continuously introduced and improved related policy tools. However, from a practical effectiveness perspective, there is still room for optimization. Regarding monetary policy, currently, county-level corporate banks can only use policy tools such as reloading for supporting agriculture and small businesses. They cannot access policy tools with lower interest rates and broader coverage, such as reloading for clean and efficient coal use, technological innovation, inclusive elderly care, and transportation and logistics. In terms of fiscal and tax policies, most regions have basically established a fiscal incentive and subsidy mechanism for inclusive finance, primarily consisting of loan interest subsidies, risk compensation, rewards, grants, and cost subsidies. However, in practice, problems exist such as slow application processes for incentives/subsidies, high compensation thresholds, difficulty in effectively implementing risk-sharing compensation mechanisms, insufficient funds in dedicated compensation fund accounts, and uneven distribution of compensation.

Regarding differentiated regulatory policies, mechanisms like liability exemption for diligent performance are difficult to implement effectively. The assessment of banks' inclusive finance business focuses heavily on "quantity" and "price," making it hard to stimulate banks' endogenous motivation. Furthermore, there is a lack of inherent logical connection between fiscal, financial, and regulatory policies, with insufficient complementation, synergy, and evaluation of policy effects. In practice, policies sometimes fail to align with reality and may even counteract or neutralize each other, easily leading to issues like "policy arbitrage" and adverse selection [6].

4. Countermeasures and Suggestions

4.1 Promoting the Construction of the Inclusive Finance Credit System

The construction of a credit system is crucial for the efficient operation of inclusive finance. The government should improve the credit system, utilize block chain technology to enhance the traceability of credit records, and expand the coverage of credit information for rural groups and small and micro enterprises [7]. This would

reduce commercial banks' concerns about serving inclusive groups, thereby enhancing the funding supply capacity in related markets. Furthermore, commercial banks should strengthen the application of digital credit and intelligent risk control systems. They can establish digital risk calculation models and use technical means such as risk screening, risk modeling, and risk early warning to accurately improve their profiling capability for rural groups and small and micro enterprises. Commercial banks can optimize the inclusive credit assessment process through means like artificial intelligence and big data analysis, reducing default risks and improving loan accessibility for farmers and small and micro enterprises.

Additionally, the government can promote the construction of an inclusive finance ecosystem, encouraging the participation of the government, commercial banks, rural cooperatives, and social capital in cultivating the inclusive finance market. For example, special funds for rural revitalization could be established, combining government subsidies with credit guarantees from financial institutions, to support the development of emerging industries like agricultural modernization and rural tourism.

4.2 Innovating Financial Products and Services

Commercial banks should strengthen the integration of inclusive finance and financial technology, innovating inclusive financial products and service models by utilizing technological means such as big data and artificial intelligence. Commercial banks can develop more adaptable financial products tailored to the characteristics of inclusive finance, such as supply chain finance based on agricultural production data, order financing, and digital agricultural insurance, to match the diverse needs of various rural economies. Utilize digital technology for market re-segmentation and design targeted loan products based on the characteristics of different customer groups. Commercial banks can innovate collateral models based on the actual situation of small and micro enterprises and farmers, lower the collateral threshold for small and micro enterprises, and explore methods for approving unsecured loans for farmers. Expand data application scenarios through big data technology, develop data evaluation models, and

innovate digital inclusive products to alleviate the difficulties and high costs of financing for small and micro enterprises. Utilize data analysis and customer management systems to establish detailed customer profiles and portraits, enabling precision marketing. By dividing county markets into grids, commercial banks can more precisely reach each customer segment [8].

Simultaneously, commercial banks should establish a multi-level product system, offering flexible loan amounts and repayment terms for loan businesses targeting farmers and small and micro enterprises. Empowered by technology, commercial banks can introduce technical services such as identity authentication and electronic seals to automate processes including customer filing, project approval, contract signing, and loan disbursement, thereby simplifying approval procedures, lowering entry barriers, and enhancing service efficiency [9]. Furthermore, commercial banks can collaborate with local governments to establish inclusive finance demonstration zones and provide personalized financial service solutions to stimulate market vitality.

4.3 Accelerating Digital Transformation

Commercial banks need to undergo digital transformation through financial technology, comprehensively optimizing and upgrading the development model of inclusive finance, and improving the coverage and convenience of inclusive financial services.

Firstly, commercial banks should prioritize the integrated application of modern information technologies like big data and AI, increase investment in financial technology resources, continuously improve business information systems, enhance the management service capabilities for resources, data, and information, optimize the inclusive finance service model, improve credit approval and risk management models, and increase the accessibility and quality of financial services for small and micro enterprises, individual entrepreneurs, and agriculture-related entities.

Secondly, by effectively integrating business data, customer data, etc., break down data silos, fully exploit the value of data, and better meet the needs for big data financial products and business innovation. For instance, commercial banks can build an integrated, standardized, and full-cycle intelligent service platform for small and micro entities, formulating specialized credit

plans based on information such as their tax, fees, utilities, etc.

Thirdly, expand the breadth and depth of digital application. Fully leverage financial technology for precise customer profiling and conduct precision marketing through providing one-stop customer services; utilize digital technology means to partially replace manual processes, reducing credit risk and transaction costs while improving loan efficiency; comprehensively use digital information to conduct credit assessments for small and micro entities, determine creditworthiness, predict the probability of default, and conduct comprehensive credit granting, further enhancing the precision and individuation of inclusive financial services.

Fourthly, enhance the digital level of risk control capabilities, fully utilize financial technology to establish stable risk control models, continuously iterate and upgrade these models through data training, gradually achieve automated risk early warning, and implement full-process risk management for inclusive business. Prioritize financial technology security, enhance the accurate application of network security protection technologies, increase construction and investment in areas such as firewalls, digital encryption, and local area networks, improve the foundational environment for system application, and ensure the security of inclusive finance business operations [10].

4.4 Enhancing the Targeting and Continuity of Policies

Inclusive finance policies should focus on creating positive incentives and fostering a fair competitive environment. All types of banks providing inclusive services should receive corresponding support, without policy "discrimination" or favoritism based on the institution's origin, size, or level [11]. It is recommended to review and integrate differentiated reserve requirement ratios, reloading for supporting agriculture and small businesses, and incentive policies for increments in agriculture-related loans, shifting the focus from rewarding institutions to rewarding specific business activities, and enhance the coordination between fiscal and financial policies.

Increase support for county-level corporate banks through monetary policy tools, appropriately expand the scope of financial institutions eligible for special monetary policy tools targeting technological innovation, carbon

emission reduction, inclusive elderly care, etc., and strengthen support for county-level corporate banks. Improve the inclusive finance risk compensation mechanism characterized by "credit enhancement, risk sharing, and loss reduction". Fully utilize government risk compensation funds, government-backed guarantee systems, and bank-insurance, bank-guarantee cooperation models to lower government-backed financing guarantee fees and counter-guarantee requirements, thereby strengthening risk sharing for inclusive finance business.

5. Conclusion

The purpose of inclusive finance is to eradicate poverty and achieve financial equity, with serving the real economy as the starting point and ultimate goal. It has a significant impact on further promoting China's economic construction and ensuring social stability. As a key supplier of inclusive finance, commercial banks should ensure the sustainable development of inclusive finance. To this end, commercial banks need to promptly address problems exposed during the conduct of their inclusive finance business, apply financial technology means to reduce risks, innovate financial products and services, expand the coverage of inclusive finance, and continuously enhance their service capacity for the real economy. Additionally, the government needs to formulate more effective and targeted policies to support the long-term development of commercial banks' inclusive finance.

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