

Fintech Enabled Development of Digital Financial Inclusion: Evidence from Agricultural Bank of China

Mukaidaisi Nuermainaiti

School of Finance, Xinjiang University of Finance and Economics, Urumqi, 830012, China

Abstract

The development vein of digital inclusive finance has gradually evolved from micro finance and inclusive finance to the current digital stage. Its essence is to optimize the efficiency of financial resource allocation and guide more capital to flow to the real economy such as small and micro enterprises and private enterprises, thus driving the formation of inclusive economic growth, coordinated development and the improvement of social welfare level. However, the process of promoting digital inclusive finance is not smooth for traditional commercial banks, and they are faced with high operating costs and the difficulty of balancing service inclusiveness and business sustainability. Centering on the practical case of Agricultural Bank of China, this study deeply studies the internal mechanism and existing problems of fintech enabling digital transformation and promoting the development of inclusive finance. The research finds that Agricultural Bank of China currently has constraints such as the homogeneity of inclusive financial products, the pressure of business sustainability and information risk management. In this regard, this paper puts forward suggestions from the aspects of building the digital product system of agricultural Bank of China, exploring the sustainable model of inclusive finance with agricultural characteristics, and strengthening digital risk management, so as to provide theoretical reference and practical path for commercial banks to deepen digital transformation and realize the high-quality development of inclusive finance.

Keywords

Fintech; Digital Financial Inclusion; Agricultural Bank of China; Digital Transformation.

1. Introduction

The rapid development of fintech provides a key driving force for commercial banks to improve the quality and efficiency of inclusive financial services. With the beginning of the 14th Five-Year Plan period, the 14th Five-Year Plan of the People's Republic of China for National Economic and Social Development and the Outline of the Vision and Goals for 2035 were officially promulgated and implemented at the beginning of the plan period. The plan focuses on strengthening the national strategic scientific and technological strength, and clearly puts forward the core strategic directions of focusing on scientific and technological infrastructure, highlighting the "hard technology" positioning of the science and technology innovation board, and accelerating digital transformation[1]. Fintech enables commercial banks to improve their financial service capabilities, innovate customer interaction modes and optimize business operation system, providing key support for expanding the coverage and service depth of inclusive digital finance in the banking industry. As an important state-owned large commercial bank in China, Agricultural Bank of China plays a key role in using fintech to accurately serve the real economy, especially to meet the diversified and affordable financial needs of small and micro enterprises, agriculture, rural areas and farmers, and county residents. In terms of technology empowerment, Agricultural Bank of China relies on big data, Internet of Things and artificial intelligence technology to create digital product lines such as "micro quick loan" and

"chain quick loan" to realize the automation of credit approval and intelligent risk control, and effectively alleviate the information asymmetry problem of small and micro customers. At the scene coverage level, supply chain finance is used as the engine to integrate the capital flow of the industrial chain and open up the "last kilometer" of rural areas; At the level of mechanism guarantee, a special mechanism of "dare to lend, willing to lend, able to lend and willing to lend" has been established to ensure the effective allocation of inclusive resources.

Domestic and foreign studies believe that fintech has significant significance in reducing the cost of inclusive financial services, managing risks and improving efficiency. Agricultural Bank of China's digital inclusive finance measures, supply chain finance platform integration and intelligent risk control mechanism have preliminarily verified the efficiency of technology empowerment[2]. However, for large state-owned banks, how to build a replicable and sustainable high-quality development model of digital inclusive finance, its internal logic and the key path of successful implementation still need to be deeply studied.

Therefore, this study focuses on the practical case of Agricultural Bank of China to deeply analyze the core path and innovation mode of commercial banks using fintech to promote the high-quality development of inclusive finance. Thus, it provides a methodology that can be used for reference for the digital transformation of agricultural Bank of China financial institutions, and provides an important practical path reference for promoting inclusive finance from scale expansion to quality improvement.

2. The Practical Effect of Fintech Helping Agricultural Bank of China in Digital Inclusive Finance

2.1. Fintech Enables the Digital Transformation of Agricultural Bank of China

In terms of personal wealth management, AGBANK focuses on the integration of data-driven strategy and digital operation mode. Relying on the platform of "Retail Business Intelligent Center", AGBANK has launched an intelligent tool system containing three core functions of "intelligent customer welcome", "customer retention" and "digital employee" to provide customers with targeted and intelligent financial service solutions and accelerate the process of digital transformation. Digital transformation and in-depth application of Internet technology have improved the online service efficiency of Agricultural Bank of China, and customer groups have accelerated their migration to digital channels. By the end of 2023, the number of personal online banking users of AGBank exceeded 345 million, an increase of 5.8% compared with the same period last year. Its online banking and mobile application (APP) significantly improved the efficiency of users in core business areas such as payment, settlement, financing and wealth management[3]. In this context, Agricultural Bank of China, relying on its extensive physical network advantages and fintech capabilities, has actively built an inclusive financial service system integrating online and offline, effectively meeting the financial needs of rural areas and small and micro enterprises.

2.2. Fintech Enables the Inclusiveness of Agricultural Bank of China's Loan Business

Although the construction of inclusive financial system in China is later than the international advanced level, its growth rate is extremely significant. Data show that by the end of 2024, the total loan scale of Agricultural Bank of China was about 26.8 trillion yuan, and the loan balance of inclusive small and micro enterprises was 3.23 trillion yuan, accounting for about 12.05% of the total loan of the bank[4]. These data fully show that inclusive finance business has become a key area in agricultural Bank of China's strategic layout. At the practical level, ABC has innovatively explored the development path of "digital inclusion" and effectively broken through the limitations of traditional business model and structure. The main characteristics of

its digital inclusion model are reflected in three aspects: (1) The deep integration of scientific and technological capabilities has significantly improved the application efficiency of digital technology and fintech innovation; (2) The construction of diversified product system to form financial products that can accurately match the differentiated needs of different customer groups; (3) Improve the intelligent risk control system to effectively realize the scientific control of the non-performing rate of inclusive loan business.

2.3. Cost Optimization of Inclusive Finance of Agricultural Bank of China Empowered by Fintech

Agricultural Bank of China actively promotes the deep integration of credit policy innovation and fintech, effectively reducing the financing burden of small and micro enterprises. Based on the application of advanced technology, AgBank has significantly improved the efficiency of loan business, optimized the internal personnel structure, and systematically reengineered the credit review mechanism, thus securing more favorable loan terms for small and medium-sized enterprises. These measures not only improve the economic benefits of enterprises, but also enhance their ability to serve the society and create value[5]. In recent years, the loan interest rate provided by Agricultural Bank of China for target customers of inclusive finance has always been lower than the market average level and has maintained a steady downward trend (see Figure 1). By the end of 2024, the average interest rate on its inclusive loans to small and medium-sized enterprises had fallen to 3.47%, further down from the end of the previous year, helping real enterprises ease financing pressure and reduce operating costs, data showed.

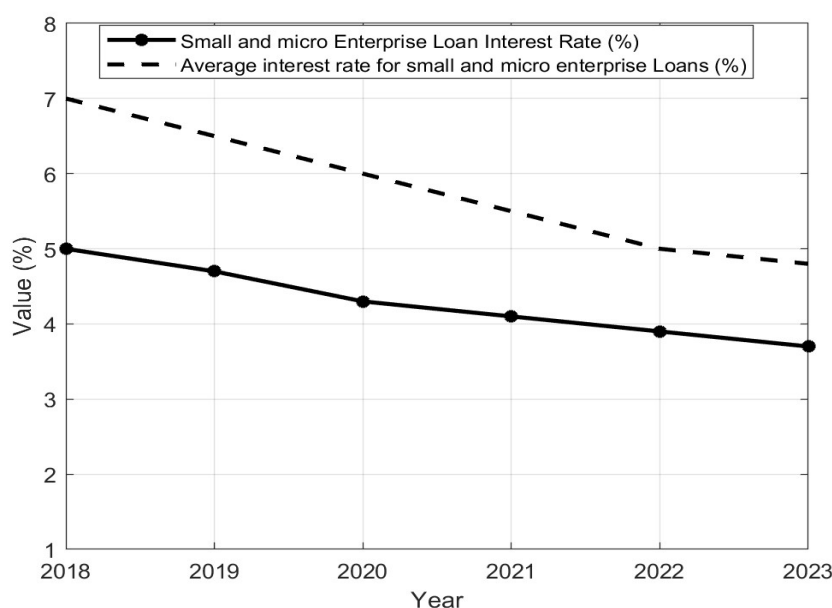


Figure 1. Changes in the average loan interest rate of small and micro enterprises

Source: Agricultural Bank of China Annual Report

2.4. The Efficiency of Intelligent Services for Inclusive Finance Enabled by Fintech has been Improved

The core service objects of inclusive finance, such as small and micro enterprises and agriculture-related subjects, are often characterized by a large number of customers, insufficient assets available for mortgage, and relatively limited credit records. As a result, the traditional banking business model generally has pain points such as long loan approval time, slow business processing pace and low payment and settlement efficiency when serving such groups. In order to effectively solve these problems, Agricultural Bank of China has actively

promoted the in-depth combination of fintech and specific business scenarios, integrated and optimized online and offline service channels, and built new service systems such as mobile banking and Internet platform. More critically, "Kuidai" and other products specifically meet the financing needs of the above customers[5]. In addition, Agricultural Bank of China has promoted the online transformation of the whole process of loan business, established a digital and efficient operation mechanism, and set a clear time limit for each link. According to the 2024 financial report, "Huinong E-dai" and "small and micro Kuidai" performed well, with loan balances exceeding 1.2 trillion yuan and 890 billion yuan respectively. At the critical stage of the current external economic policy uncertainty, these innovative products and service models of agricultural Bank of China have provided timely and powerful financial support for many farmers and small and micro enterprises.

3. Problems Faced by Agricultural Bank of China in Digital Inclusive Finance with the Assistance of Fintech

3.1. Homogenization of Inclusive Financial Products

At present, inclusive financial products developed by commercial banks relying on intelligent risk control, online process and other technologies show significant homogeneity. Taking the "Small and Micro E-loan" of Agricultural Bank of China as an example, its full-process online service mode has been imitated by many competing products such as "Small and Micro Quick Loan" of China Construction Bank and "Small and Micro Flash Loan" of China Merchants Bank, with highly similar product function positioning, service scenarios and technical paths. Although Agricultural Bank of China has developed characteristic digital credit products for customer groups such as county economy and new agricultural business entities, it is still insufficient in differentiated innovation capabilities such as customer demand mining and scene ecological construction, resulting in weakened product competitiveness[6]. This product homogeneity not only intensifies inefficient competition among banks, but also restricts the improvement of fintech's ability to provide accurate services to inclusive customer groups.

3.2. Tension between Financial Inclusiveness and Business Sustainability

Under the background of rural revitalization strategy, inclusive financial services for counties and remote areas are still facing the triple pressure of "rising operating costs, expanding risk exposure and limited revenue space". According to the 2024 financial stability report of the People's Bank of China, the non-performing credit rate of agriculture-related loans is 1.8 % points higher than that of urban commercial loans, among which the credit default risk of new agricultural business entities due to information asymmetry and insufficient collateral is particularly prominent. Although Agricultural Bank of China uses intelligent risk control technologies such as "Huinong E-dai" to control the non-performing rate, the insufficient coverage of rural credit investigation data still restricts the accuracy of risk assessment. At present, although regulators have issued the Implementation Rules for High-quality Development of Inclusive Finance to relieve cost pressure based on financial discount interest and risk compensation mechanism, Agricultural Bank of China still needs to explore a sustainable business model in rural physical network operation and maintenance, digital infrastructure investment and other aspects.

3.3. Credit Information Infrastructure is Weak and the Construction of Data Platform is Lacking

Driven by the development of fintech, Agricultural Bank of China has actively used scientific and technological means to promote digital strategic transformation. However, there are still obstacles in the process of promoting the construction of Agricultural Bank of China's data platform and facing multiple complex problems. First, the approval process for obtaining

relevant qualifications required by the platform may be cumbersome, which is easy to delay the progress of the project; Second, the confidentiality of data information must be paid great attention to, and potential omission may lead to the leakage of confidential data; Third, the comprehensive cost of data processing is still a key constraint, especially in the field of large-scale data management of banking business, which requires continuous investment of considerable digital resources and human resources[7]. This not only hinders the construction of the current technical infrastructure of Agricultural Bank of China, but also poses a challenge to its future cost control ability and sustainable development potential.

4. Countermeasures and Suggestions

4.1. Promote Fintech Empowerment and Develop a System of Agricultural Digital Financial Products

At present, agricultural Bank of China's inclusive financial products are mainly credit products. In order to effectively cover the needs of multi-level customers, it is urgent to expand diversified inclusive product types such as insurance, investment and financing, guarantee and financial leasing, and actively respond to market changes to develop agricultural digital financial products with its own characteristics. For example, "Minyidai", government procurement financial services, bank financial leasing and other diversified products. In view of local characteristics, agricultural Bank of China needs to fully integrate science and technology into the digital platform of banks, deeply mine regional customer consumption and investment behavior data, deepen the supporting role of science and technology for business, and actively explore effective fintech service paths, so as to better serve social and public interests and earnestly fulfill the responsibility of being an industry leader. At the same time, the product system of Agricultural Bank of China should deeply tap the potential of intelligent, differentiated and scenario-based financial service products, so as to improve the use experience of financial customers, enhance the customer acquisition and retention ability of Agricultural Bank of China, and promote the effective supply of high-quality financial products and the continuous optimization of the market environment.

4.2. Build a Sustainable Development Model of Inclusive Finance with Agricultural Characteristics

To alleviate the potential contradiction between the long-term development of inclusive finance and the business goals of commercial banks, and to enhance the motivation of banks to carry out inclusive business, the Agricultural Bank of China should fully leverage its unique advantages accumulated from its in-depth cultivation in the "agriculture, rural areas and farmers" sector[8]. Based on the characteristics of rural industries and the actual regional environment, explore and construct a sustainable development model of inclusive finance with distinct agricultural features. Based on the existing regional characteristic inclusive financial product system, we will focus on selecting and supporting benchmark enterprises, agricultural production cooperatives and large-scale planting entities with industry representativeness to maximize their exemplary and leading role. At the same time, efforts should be made to continuously cultivate local characteristic agricultural industries, relying on rural ecological and landscape resources to promote the development of characteristic rural tourism industries, thereby enhancing the sustainability and long-term development capacity of the inclusive finance model itself.

4.3. Improve the Regulatory System for Financial Technology and Strengthen Digital Risk Management

Under the background of promoting rural revitalization, the Agricultural Bank of China's inclusive financial services have a wide coverage and a large number of users, which has greatly

increased the complexity of supervision. In this regard, in light of the practices of Agricultural Bank of China in the field of rural inclusive finance, implementing differentiated supervision is an inevitable path to ensure its standardized growth. On the one hand, efforts should be made to strengthen the prevention and control of risks related to agriculture, build models such as anti-fraud, credit scoring, credit granting strategies and risk pricing, and realize the online approval and risk-sharing mechanism for agricultural-related loans[9]. On the other hand, the particularity and risk characteristics of the rural market should be fully considered, and a regulatory model tailored to local actual features should be established to promote the practical implementation and effectiveness of technology application. On this basis, it is particularly crucial to implement penetrating supervision, strengthen behavioral supervision, and integrate multiple forces to build a collaborative supervision mechanism for Agricultural Bank of China's institutions, businesses and platforms.

5. Enlightenment

5.1. Improving the Financial Literacy of Vulnerable Groups

Possessing basic financial literacy is a necessary condition for using inclusive financial products, especially those developed using financial technology in a digital form. Therefore, firstly, commercial banks should intensify their efforts to popularize financial education by using various methods to enhance the public's learning and understanding of financial knowledge. For example, they can promote financial knowledge through classroom activities, hold financial lectures, distribute brochures, and broadcast on radio stations to strengthen the public's understanding of financial knowledge and the meaning of inclusive finance, thereby improving the acceptance of inclusive finance. Secondly, in digital inclusive financial services, focus on industry-based poverty alleviation, guiding residents in rural and remote areas to learn financial knowledge, cultivate characteristic industries, and obtain stable sources of income for sustainable development[5]. Thirdly, increase support for vulnerable groups in rural areas by using digital inclusive financial services to help rural women start businesses and find employment, thus improving their income levels. Fourthly, develop targeted digital inclusive financial products for vulnerable and disabled groups in rural and remote areas, considering the accessibility of product use during the design process, so that these groups can truly enjoy the convenient services brought about by digital inclusive finance.

5.2. Adopt Mature Technologies and Cultivate Composite Talents

The research and development of financial technology require significant investment in human and material resources. To fully leverage the role of financial technology in driving inclusive finance for commercial banks and to reduce the trial-and-error costs associated with new technology risks, commercial banks should select technologies that are reliable and mature[10]. They should adhere to the principles of practicality, safety, and stability when modifying mature technologies to meet their own usage requirements, avoiding the pursuit of novelty in technology for its own sake. The introduction and development of new technologies should be carried out gradually. This approach will enable the sustainable development of financial technology in boosting inclusive finance.

In terms of talent recruitment and development, efforts should be made to attract professionals in sectors and businesses where talent is scarce. Furthermore, in subsequent training, focus on cultivating composite application talents in the fields of inclusive finance and financial technology, fully utilizing the advantages of such composite talents to reduce the cost of human resource utilization.

6. Conclusion

This study illustrates that while fintech has significantly propelled the development of digital financial inclusion at the Agricultural Bank of China (ABC), persistent challenges—such as product homogenization, tensions in sustainability, and deficiencies in infrastructure—continue to pose substantial barriers. To address these challenges, it is imperative to accelerate the development of a differentiated digital product architecture, design sustainable business models suited to agricultural contexts, and enhance intelligent risk management frameworks. These strategic interventions not only provide a practical pathway for ABC to realize high-quality financial inclusion but also offer adaptable insights for other commercial banks engaged in digital transformation, thereby promoting equitable and efficient financial services in underserved areas.

Acknowledgement

This research is supported by the Graduate Research Innovation Project of Xinjiang University of Finance and Economics, “Investigation, Analysis, and Countermeasures on Financial Innovation in the China (Xinjiang) Pilot Free Trade Zone”. (Grant No. XJUFE2025D003).

References

- [1] Kai Wang, Yihui Peng, Tingting Zhou. The Impact of Supply Chain Innovation and Application Policies on Supply Chain Digitalization[J]. *Emerging Markets Finance and Trade*, 2025, 61(11): 3308-3331.
- [2] Mengxi Yang, Changhe Wu, Walton Wider, Muhammad Ashraf Fauzi, Eugene Burgos Mutuc. A Bibliometric Analysis of Digital Financial Inclusion: Current Trends and Future Directions[J]. *Economics*, 2025, 19(1): 20250156-20250156.
- [3] Siyuan Lin, Shuchao Miao. The enhancing effect and role path of digital finance on the resilience of agricultural industry chain[J]. *Finance Research Letters*, 2025, 83107697-107697.
- [4] Information on: <http://www.gov.cn/lianbo/bumen/202501/content6998520.htm>
- [5] Cong Li: Agricultural Bank of China financial technology assistance Practical Research on the Development of Inclusive Finance (MS., Hebei University, China 2021), p.28-33.
- [6] Andry Alamsyah, Aufa Azhari Hafidh, Annisa Dwiyantri Mulya. Innovative Credit Risk Assessment: Leveraging Social Media Data for Inclusive Credit Scoring in Indonesia's Fintech Sector[J]. *Journal of Risk and Financial Management*, 2025, 18(2): 74-74.
- [7] Wei Jia, Zhihao Wang, Lei Liu. Digital Inclusive Finance and Carbon Emission Efficiency: Evidence from China's Economic Zones[J]. *Sustainability*, 2025, 17(2): 409-409.
- [8] Lu Qin, Chunchun Chen, Yan Chen, Yanzhi Su. Digital financial inclusion, analyst attention, and the green innovation in energy firms[J]. *Finance Research Letters*, 2024, 67(PB): 105947-105947.
- [9] Xiangshan Chen. Research on the Development of Inclusive Finance in Hong Kong: A Fintech Perspective[J]. *International Journal of Economics and Finance*, 2024, 16(5): 28-28.
- [10] Zhu Keda, Guo Lihong. Financial technology, inclusive finance and bank performance[J]. *Finance Research Letters*, 2024, 60104872.