

# Research on Digital Finance Empowering Rural Revitalization

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**Abstract:** Rural revitalization has become a focal point of attention for countries worldwide. In the digital age, the progress of rural revitalization is closely related to the development of digital finance. This paper comprehensively analyzes the theoretical logic behind how digital finance not only enhances the digital literacy of rural residents but also breaks down information barriers in rural markets. It further facilitates low-cost financing for rural residents and businesses and promotes the integration of rural industries, thereby optimizing rural lifestyle and cultivating a harmonious spiritual environment. However, it is important to acknowledge that digital finance may encounter various challenges in empowering rural revitalization. In order to achieve China's rural revitalization strategy and better guide the empowering role of digital finance, this paper presents relevant policy recommendations: strengthening the construction of rural digital infrastructure, improving regulatory mechanisms for rural finance, and actively promoting effective integration between digital technologies and rural industries.

**Keywords:** Digital Finance; Rural Revitalization; Challenges; Policy Recommendations

## 1. Introduction

In recent years, China has witnessed remarkable advancements in financial technology, characterized by its efficiency, compliance, asset-light nature, and high value-added services. Various industries in China have embraced financial services with an optimistic attitude, recognizing the benefits they bring. Digital financial technology, including systems for digital identity recognition and mobile currency for payment settlements, has seamlessly integrated into the daily lives of Chinese citizens.

In 2021, China emphasized the vigorous development of rural digital finance to ensure the advancement of credit and mortgage loan services for rural households and enterprises. In 2022, China reiterated the importance of promoting the construction of rural digital finance to empower rural revitalization through digital technologies. The content of the report clearly stated the need to improve the digital financial service system and promote sustainable agricultural development. In 2023, China once again emphasized the active promotion of comprehensive development in digital rural areas, encouraging the research and promotion of new digital application scenarios to contribute to the continuous growth of smart agriculture.

Digital finance has emerged as the primary direction for financial development in China. How digital finance can empower rural revitalization has become a crucial topic of focus in Chinese society and academia.

## 2. Empowering Rural Revitalization through Digital Finance: Theoretical Research

### 2.1 Enhancing the Digital Information Skills of Rural Residents

Currently, rural communities still face limitations in accessing external information, and their understanding of information remains relatively weak, lacking discernment. This hinders their absorption, processing, and retransmission of information to some extent[1,2]. Improving digital skills can help optimize the application of information technology in rural communities, thereby driving progress in rural digital finance [3]. The definition of digital information skills encompasses the abilities to analyze, collect, and apply information. With the expansion and popularity of advanced technologies such as mobile internet, cloud computing, and big data, enhancing digital skills can empower farmers

to use digital tools and technologies more effectively, enabling them to access key information through digital channels, reducing information acquisition costs, increasing information demand, and creating a solid data foundation for rural digital finance. For example, they can use online tools to gather information about government policies or industry trends, thereby enhancing their understanding of digital technology and finance, and participating more effectively in digital financial activities. In addition, improving the digital information skills of farmers also helps them access external information more widely, promote the sharing of high-quality information across regions, and connect previously relatively isolated rural markets, integrating them into a broader digital social network.

### **2.2 Reducing the Cost of Financial Services for Rural Residents**

Compared to urban areas, rural regions are vast and sparsely populated, making it difficult for traditional financial services to reach every corner [4]. Rural residents often face long journeys and waiting times in front of financial institutions to complete financial transactions, subjected to complex loan processes that impose a significant time cost. Particularly in remote rural areas, traditional financial services are almost inaccessible. However, digital finance provides a solution to this problem. With just a smartphone or an internet-connected computer, rural residents can conveniently and quickly conduct financial operations, experiencing firsthand the various conveniences brought by network technology. Furthermore, with the rise of digital finance and advancements in data collection and analysis technologies, rural residents' consumption patterns, payment habits, social networks, and more can serve as references for credit evaluation. This enables the construction of a more accurate and fair rural credit system, lowering risks for financial institutions and reducing the barriers to financial services, thus narrowing the scope of "financial exclusion".

### **2.3 Accelerating Rural Industry Optimization and Integration**

Digital finance is an effective way to promote the revitalization of rural industries [5]. In

rural areas, the traditional industry structure often exhibits characteristics of being decentralized, inefficient, and highly repetitive, which is closely related to uneven distribution of local financial resources and a lack of financial services. The emergence of digital finance breaks this situation. Digital finance also creates favorable conditions for the integration of primary, secondary, and tertiary industries in rural areas [6]. Through digitized financial platforms, traditional agriculture, manufacturing, and service industries in rural areas can achieve information sharing, resource integration, and market expansion. Farmers can access market trends, price information, and technical support through digital finance platforms, encouraging the development of agricultural products towards higher added value. Simultaneously, the manufacturing and service industries can also more easily access funding support to undergo technological upgrades and market expansions. As rural households and rural enterprises enjoy digital financial services, they gradually become accustomed to using digital technology in their daily production, life, and transaction activities [7]. This not only improves the level of digitization in rural areas but also creates a more favorable external environment for future industrial upgrading and development.

### **2.4 Optimizing the Rural Ecological Environment**

Technological advancements have brought digital finance to the financial industry, which plays an essential role in promoting a livable rural ecological environment [8]. Firstly, through continuous innovation of financial products, digital finance actively supports ecological agriculture and various environmental projects, leading to increased green loans being used for the preservation of ecological diversity. This strengthens the overall promotion of rural ecosystems. Secondly, inclusive digital finance not only focuses on traditional financial products but also seeks to develop green financial tools that meet current needs [9]. These financial instruments encourage the adoption of green and advanced technologies in the agricultural industry, thereby reducing the carbon footprint generated by farming activities. With the integration of these technologies, agriculture

can improve its economic efficiency while minimizing its environmental impact. This win-win model undoubtedly provides strong support for the stability and sustainable growth of modern agriculture. Moreover, digital finance goes beyond product innovation; it also increases investment in rural infrastructure by expanding the scope of investment. This contributes to creating a more livable external environment for rural areas. These infrastructure developments not only enhance the overall quality of rural life but also provide a solid foundation for the long-term ecological sustainability of rural areas.

### **2.5 Promoting Rural Cultural and Ethical Development**

The core of rural revitalization lies not only in infrastructure development but also in the reshaping of culture and spirit[10]. Government agencies and financial institutions should work together to enhance rural residents' basic understanding of finance through various means, such as online promotional activities, in a systematic manner. Emphasizing financial security and valuing integrity not only helps farmers better understand and utilize financial tools but also fosters a fair, just, and trustworthy atmosphere in the entire rural community, thus promoting the improvement of rural ethical standards. Moreover, digital finance plays a crucial role in rural cultural development. The financial support it provides can directly fund various cultural activities and projects for spiritual civilization in rural areas, enriching farmers' cultural lives and enhancing their sense of satisfaction and well-being. This investment in culture and spiritual life contributes to the deepening of rural cultural development, fostering a more harmonious rural ethos. Lastly, digital finance can provide assistance to rural education from a broader perspective. When families recognize the potential returns of education, they are more likely to invest more resources in supporting the education of the next generation. In this regard, inclusive digital finance can offer greater support, helping to alleviate the imbalance of educational resources between urban and rural areas. Through such efforts, we can not only improve the overall level of rural education but also inject more vitality into rural cultural

development.

### **2.6 Improving the Income Level of Rural Residents**

Digital finance demonstrates tremendous potential for enhancing the quality of life for rural populations. Firstly, this form of finance overcomes the limitations of traditional finance in rural areas, such as geographic distance and limited service hours. It ensures that rural residents no longer face difficulties in obtaining loans due to the lack of collateral or credit history. This flexibility relieves financial pressures on households and agricultural entities when developing rural industries, ensuring the rational flow of financial assets. The prudent utilization of these financial resources not only facilitates rural households' better engagement in industries but also creates more opportunities for them to achieve prosperity in their lives. Furthermore, the promotion of inclusive digital finance injects unprecedented economic vitality into rural areas. It not only encourages urban individuals to return to their hometowns for entrepreneurship but also provides more opportunities for non-agricultural employment, directly impacting farmers' sources of income and further increasing their business income and asset returns. Additionally, with the widespread adoption and maturation of digital finance and digital technologies, rural areas may attract more investments and projects. This implies more employment opportunities and higher income levels, leading to significant improvements in farmers' lives. Overall, digital finance has become a powerful tool in helping rural populations achieve economic prosperity and financial well-being.

## **3. Conclusion and Policy Recommendations**

### **3.1 Conclusion**

With the application of digital technology and advancements in the Internet of Things (IoT), big data, cloud computing, and more, digital finance has enhanced the digital information skills of rural residents. By leveraging IoT and big data, digital finance has reduced the cost of accessing financial services for rural residents. It has also accelerated the optimization and integration of rural industries, improved the rural ecological environment, and increased the income level of rural residents. This, in

turn, has facilitated the revitalization of rural industries.

### 3.2 Policy Recommendations

#### 3.2.1. Improving rural infrastructure development

In the process of rural revitalization, digital finance continues to bring vitality to rural areas. However, its effectiveness is highly dependent on the presence of adequate infrastructure and public services. The following policy recommendations are proposed: Firstly, it is recommended that both the national and local governments jointly increase investment in providing high-speed and stable internet access in rural areas. This will ensure that farmers can seamlessly access various digital financial tools without barriers. Secondly, it is important to further improve public service facilities in rural areas. Increased investments should be made in education and healthcare to provide convenient conditions and environments for talent development. Establishing dedicated digital service centers within rural public service facilities will provide farmers with training and consultations on digital finance, enhancing their awareness and application capabilities in digital financial services. Thirdly, it is necessary to enhance the digital infrastructure for financial data in rural areas and continue expanding 5G networks. Further optimization of internet conditions in these regions and widespread adoption of cutting-edge technologies such as big data and blockchain will contribute to the continuous improvement of technological research and development in digital finance. And finally, efforts should be made to improve the accuracy and completeness of rural data, promoting the establishment of a platform that facilitates information sharing and integration between financial entities and government agencies.

#### 3.2.2. Improvements to the rural financial regulatory system

First of all, regulatory responsibilities should be clearly defined: Clear and distinct divisions of responsibilities should be set between the central and local authorities in order to avoid regulatory vacuums or overlapping jurisdictions. Secondly, emphasis should be placed on the development of laws and regulations: Laws and regulations that are

tailored to the unique characteristics of rural finance should be formulated, ensuring their timely updates to effectively respond to changes and innovations in rural financial services. Thirdly, risk prevention measures need to be strengthened: A robust monitoring and early warning system for rural financial risks should be established, enabling stringent actions against irregular operations and fraudulent practices. Fourth, information sharing mechanisms should be established: Information sharing among government entities, financial institutions, and other relevant stakeholders should be encouraged, facilitating a timely assessment of rural financial operations and enabling the identification and prevention of risks. Fifth, promotion of technological applications: Advanced regulatory technologies, such as big data and artificial intelligence, should be embraced to support the regulatory authorities in monitoring and managing rural financial activities more effectively. Sixth, focus on training and talent acquisition: Comprehensive training programs should be implemented, and efforts should be made to attract skilled professionals who possess a deep understanding of the characteristics and requirements of rural finance. Seventh, improved mechanisms for dispute resolution: The establishment and enhancement of efficient dispute resolution mechanisms for rural financial disputes should be prioritized, ensuring the protection of consumer rights and the maintenance of financial stability.

#### 3.2.3. Facilitating effective integration of digital technology and rural revitalization

The effective integration of digital technology and rural revitalization is crucial to the success of the rural revitalization strategy. It is essential to guide the convergence of these two aspects in a more efficient manner. The following recommendations are proposed: 1. Training for farmers and rural entrepreneurs: Conduct training programs for farmers and rural entrepreneurs to enhance their digital literacy. This will enable them to fully leverage digital technology to promote the development of agriculture and the rural economy. 2. Promoting digital technology applications: Promote the widespread adoption of digital technologies such as the IoT, AI, and big data in agriculture. This will facilitate the seamless integration of digital technology with

agricultural production, leading to improved productivity and reduced production costs. 3. Encouraging e-commerce platforms for rural product sales: Encourage the use of e-commerce platforms for the sale of rural products, integrating digital technology with agricultural sales. Expanding the market reach of rural products through digital channels will not only boost sales but also cultivate rural entrepreneurs in the e-commerce sector. 4. Facilitating collaboration and exchange: Organize exchanges and collaborations between rural areas and digital technology companies, manufacturing industries, research institutions, and tourism service providers. This will foster mutual understanding and cooperation, accelerating the integration and development of the primary, secondary, and tertiary sectors of the economy.

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