

# Research on the Influence Effect and Optimization Path of Financial Technology on Rural Digital Development

## -- Take Guzhen County of Bengbu City as an Example

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### Abstract

The revitalization of the countryside will fully realize the strong agriculture, beautiful countryside and rich peasants. Finance is the core of modern economy and plays an irreplaceable role in the implementation of the rural revitalization strategy. In the face of the current situation that the development of financial science and technology is accelerating and the revolution of digital technology is advancing by leaps and bounds, the application of digital technology in financial services for rural revitalization can effectively improve service efficiency and stimulate new changes. This paper expounds the advantages of financial digitalization in serving the rural revitalization, and analyzes the practical exploration of rural financial digitalization. On this basis, and taking Guzhen County of Bengbu City as an example, this paper analyzes the financial digitalization service for the development of rural industries, identifies the challenges faced, and puts forward corresponding countermeasures and suggestions.

### Keywords

Financial Technology; Rural Revitalization; Digital Economy.

## 1. The Advantages of Digital Financial Services for Rural Revitalization

The Fifth Plenary Session of the 19th Central Committee of the Communist Party of China clearly proposed giving priority to the development of agriculture and rural areas and comprehensively promoting the revitalization of rural areas. Finance is the core of modern economy, and the realization of rural revitalization cannot be achieved without financial support. At present, the development of financial science and technology is accelerating and the revolution of digital technology is advancing by leaps and bounds. The application of digital technologies such as big data, cloud computing, block chains and the Internet of Things to the revitalization of financial service villages can effectively improve service efficiency and stimulate new changes.

### 1.1. The Advantages of the Times

First, digitalization stimulates change. Digital technology can lead to changes in productivity and production relations. Big data has become a factor of production, artificial intelligence has improved productivity, and block chains have changed production relations. This kind of change can improve the efficiency of production and make people obtain more wealth faster and more effectively. The digital economy in developed countries such as the United States, Europe and Japan accounts for more than 50% of GDP. According to the White Paper on China's Digital Economic Development (2020), the scale of China's digital economic added value reached 35.8 trillion yuan in 2019, accounting for 36.2% of GDP, up 1.4 percentage points year-

on-year. The second is the deep integration of technology and finance. Science and technology and finance are the two core elements of economic development. Scientific and technological innovation cannot be separated from the support of modern finance. Artificial intelligence, 5G, block chain technology and other high technologies have been applied to financial services. According to statistics, in the 2019 China News of the six largest state-owned banks and eight listed joint-stock banks, financial technology was mentioned 153 times, among which China Merchants Bank was mentioned up to 32 times. This shows the importance that banks attach to financial technology. Third, the national strategy continues to promote the digital process. The 19th National Congress of the Communist Party of China proposed to speed up the construction of a digital China, implement a network power, and drive social and economic development with innovation. The "Strategic Outline of Digital Rural Development" subsequently issued has deployed ten major tasks, including the construction of rural information infrastructure, the development of rural digital economy, and the strengthening of the supply of scientific and technological innovations in agricultural and rural areas. In the process of rural revitalization, the popularization and application of digitalization is very important. Fourth, people's production and lifestyle are highly digitized. With the continuous improvement of information infrastructure, society, enterprises and individuals have a high degree of acceptance of the concept and behavior of digitalization, and the whole society's production and life are becoming highly digitalized. In China's top 1000 enterprises, more than 50% of them take digital transformation as their core strategy. At the same time, the number of mobile Internet users in China has increased more than fourfold in 10 years, reaching 850 million in 2019. The average person spends 6.2 hours on the Internet with mobile devices every day, uses 24 applications every month, and the online retail sales have exceeded the 100,000 yuan mark.

### **1.2. Industry Advantages**

The first is to break through the time limit, connect with customers and reach more customers. With the emergence of the Internet, traffic management has become more and more important. More and more users are gathered or adhered to the Internet platforms and scenes. Using financial technology, the bank actively arranged platforms and scenarios, developed and used online financial products with low barriers and good customer experience, and extended financial services to 80% of the "long tail" customers as much as possible. Second, reduce operating costs, improve service efficiency and enhance customer experience. Through the establishment of a digital operation management structure, the service model featuring online and offline linkage, scene embedding, open platform and diversified services is reconstructed. Many links of financial services can be replaced by algorithms, such as intelligent collection, intelligent pricing, intelligent investment and care, etc., to reduce operation costs and improve service efficiency. The third is to create "open banks" and embed them into life scenes. The banking industry has entered the era of Bank4.0, and its financial services have become invisible and directly embedded into various life scenes. In this service ecosystem, the Bank will create an "open bank" and open its own financial services to other market participants through interfaces, so as to provide better services to customers. . The fourth is to realize intelligent wind control. Banks can use digital technology to comprehensively and efficiently identify risks through analysis of personal daily behavior information, corporate transaction data flow and information flow, and improve the level of risk control such as anti-fraud and risk early warning.

### **1.3. Rural Advantages**

One is to serve the vast number of rural customers. The "long tail" market in the financial industry is highly fragmented, with a large number of users but a small amount of individual funds. Too much manpower and energy are put into dealing with the business of the "long tail" customers, which will increase the cost of banks. Rural customers are generally "long tail"

customers. Digital technology has diffusion effect, overflow effect and inclusive effect. Through online and offline linkage, products and services are promoted to the "long tail" customers, which can significantly reduce the marginal cost of the "long tail" market, help banks to better serve the "long tail" customers and help farmers to better access financial services. Second, build a bridge between farmers and the demand side of agricultural products. Through the e-commerce platform, integrating rural scenes, tapping the resources of farm shops and farmers, expanding the sales channels of agricultural products for farmers to develop characteristic industry production, and promoting agricultural products to the cities, at the same time, through the digital transformation of upstream and downstream enterprises in the supply chain, high-quality industrial products can be delivered to rural consumers with lower cost and higher efficiency, and industrial products can be promoted to the countryside. The third is to ease financial exclusion. Financial technology can enhance the development of credit system and reduce risks. Through the digital platform, the transaction data of farmers are incorporated into the credit system, and loans are provided to farmers according to their credit conditions. This enables low-income farmers to obtain financing without mortgage guarantee.

## **2. Guzhen County Financial Digitization Service Rural Finance Practice Exploration**

In recent years, China's financial digitalization service for "agriculture, countryside and farmers" has achieved great results. Through the construction of digital platform and embedding into rural scenes, rural financial institutions continue to promote the construction of rural credit system, innovate the products and services of rural finance digital service, and explore multi-party cooperation mode, so as to continuously enhance the ability to serve rural finance.

### **2.1. Online Financing Makes Financing More Convenient and Efficient**

Financial institutions rely on digital technology to contribute to the development of rural finance by meeting the needs of rural industrial development and individual farmers' financing. First, online financing helps the development of the industry. Relying on local characteristic industries, and through the creation of online financing products and models, we will strongly support the sustainable development of rural areas. Agricultural Bank promoted the online financing products of "Huinong E-loan", created the characteristic model of "local+agricultural products", and relied on internet technology to support the industry development. Second, online channels allow farmers to access convenient financial services. Through the mobile phone APP platform, farmers can stay at home and obtain one-stop comprehensive financial services such as wealth management, loans and transfers.

### **2.2. "Cloud Services" Make Basic Finance Within Easy Reach**

Financial institutions have completed a comprehensive package of financial services including payment, wealth management and remittance through digital transformation. One is to embed the payment into the payment scenario related to agriculture. Fast payment methods such as aggregation codes are embedded in special scenes such as rural transportation, medical treatment and services, which brings convenience to rural enterprises and farmers and opens up the "last mile" of financial services. The People's Bank of China (PBOC) has created a "China Unionpay Quick Pass" payment model of "one county, one product" by placing "China Unionpay Quick Pass" POS terminals on buses, pharmacies and financial service stations, thus realizing "smart buses", "smart pharmacies" and "smart services" and facilitating farmers' living expenses. The second is to provide remote payment services. The development of online remote payment methods such as "payment APP+" enables farmers in remote villages to obtain a quick payment experience through online transaction payments. The third is to provide

comprehensive financial services. Through the construction of an integrated service platform with online and offline integration, unified management, diversified channels and diversified services, comprehensive financial services are provided to farmers. Icbc has built a comprehensive credit card APP platform, clearly defined "ICBC e life" as the strategic positioning of the internet voucher, integrated payment, financing and information intermediary functions, and provided comprehensive financial services through the online and offline internet ecosystem.

### **2.3. Poverty Alleviation Platform to Increase Revenue Channels Continue to Expand**

Financial institutions, through self-built online consumption poverty alleviation platform, combined with scene financial construction, build a bridge between poor farmers and enterprises, which can effectively consolidate the achievements of poverty alleviation and promote the effective connection between poverty alleviation and rural revitalization. First, poverty alleviation through consumption has been effective. Poverty alleviation through consumption is an effective measure to help the poor out of poverty by using market forces. Through the construction of a poverty alleviation mall platform and the establishment of a cooperation model, the agricultural products in poor areas will be connected with customers all over the country, the sales channels will be expanded, and the income of poor households will be increased. The second is to integrate with rural production and life scenes to help poor households out of poverty. It will further integrate with mature scenarios such as rural smart hospitals, smart schools and smart markets to expand the coverage of financial digital poverty alleviation.

### **2.4. Digital Credit Environment for Continuous Optimization**

Financial institutions obtain credit information from customers through big data analysis, make full use of the advantages of data and credit, overcome the shortage of collateral for rural enterprises and farmers, and strengthen publicity and education on the construction of good credit environment for customers. On the one hand, it uses big data technology to mine and analyze huge amounts of credit data and discover its relevance. It comprehensively understands customers from the dimensions of their age, occupation, living habits, consumption habits and so on, and establishes customer portraits to provide support for further credit system construction. On the other hand, through the online platform, we will vigorously carry out credit education and publicity in the countryside, popularize credit knowledge, enhance the credit awareness and risk awareness of the rural masses, and promote the construction of the rural credit system in depth.

## **3. Financial Digitalization Serving the Challenges Faced by Rural Revitalization**

### **3.1. The Value of Data Resources cannot be Brought into Full Play**

The basic resource of digital transformation is data. Financial institutions have a large amount of customer identity information, account information, transaction data and other data information. Through docking with external platforms such as government and enterprises, the total amount of available data resources is relatively rich. However, the focus of financial digitalization transformation is to fully tap and utilize the data resources owned by financial institutions. However, the data of financial institutions have problems such as scattered storage, inconsistent standards, and difficult integration and use. It is difficult to give full play to the value of data, and it is difficult to further promote financial digitalization transformation.

### **3.2. Farmers' Acceptance of Digital is Weak**

Although the Internet and mobile phones are now widely used in the rural areas, objectively speaking, the farmers have low academic qualifications and scientific literacy, and their ability to accept new technologies and new technologies is weak. Subjectively, the farmers have the idea of "waiting for things to depend on", and they lack the initiative to accept new things. Therefore, it is difficult to attract attention to the advertising of digital products. Even if the farmers have mobile phones, they are mainly used to answer the phone. To familiarize the farmers with the use of software such as bank's APP requires special personnel to guide, which will increase the human cost of financial institutions.

### **3.3. Digitalization Brings New Challenges to Financial Security**

The financial industry is closely related to the national economy and the people's livelihood and has very high requirements for safety. First, information security. In the process of financial digitalization transformation, large-scale data collection, transmission and calculation are involved, and information security problems are easy to occur in this process. Second, the risks of privacy protection and legal compliance. Compared with traditional banking business, digital banking business contains a wider target customer base and more complex financial behavior patterns. In the process of promoting these businesses, digital banks may bring technical risks such as privacy protection and legal compliance risks. Third, the complexity of financial risks has increased. With the deepening of the digitalization of the financial industry, the information system is becoming more and more complex, the correlation and cross-correlation of financial data are continuously strengthening, and the complexity of financial risks is also continuously increasing, which makes financial security face more severe challenges.

## **4. Measures to Enhance the Ability of Financial Digitization to Serve the Revitalization of the Countryside**

### **4.1. To Build a Solid Digital Financial Services, Rural Revitalization of the Data Base**

We should actively expand data sources, strengthen cooperation with various institutions, obtain rich data, unify data storage standards, strengthen data integration, and provide strong support for the revitalization of digital financial services villages. We should take the initiative to deepen cooperation with government departments, actively participate in the construction of government platforms such as agricultural and rural informatization, and interface with local government agricultural big data; Take the initiative to deepen cooperation with enterprises, docking agricultural credit guarantee, insurance, futures and other enterprises and institutions production and operation of big data; Actively deepen the cooperation with institutions such as payment payment and third-party data, connect daily consumption of big data, comprehensively expand the data sources, build a "internet plus government+finance+big data" financing service chain around indicators such as "financing service, credit evaluation, and continuous operation ability evaluation" by integrating various big data resources such as the government, enterprises, institutions, and third-party platforms, and using cutting-edge information technology and advanced evaluation models to improve the availability of financial services.

### **4.2. Innovative Digital Financial Services for Rural Revitalization of the Product Model**

We will do a good job in the pattern innovation of characteristic industries in rural areas, establish ecological maps of characteristic industries around key areas, and gradually realize targeted innovation of "one county, one characteristic industry, one characteristic industry, one

beneficial agricultural products", support the development of characteristic industries in rural areas, and improve the sustainability of financial services for rural revitalization. Based on the industrial chain and supply chain, the development model of "production enterprise+upstream and downstream enterprises+farmers" is constructed to realize batch customer acquisition and intensive service. Pay special attention to the innovation of e-commerce financial model, rely on the internet e-commerce platform, fully aggregate various e-commerce, finance, life services and other resources and platforms, deeply integrate into internet financial products, and create a customized rural e-commerce service platform with complete functions, safe and fast service, comfortable internal environment and first-class scene experience. We will innovate the multi-party cooperation model, integrate various service entities such as network platforms, offline outlets, fourth-party logistics and online banking credit, and build a new hybrid e-commerce model of "platform+consumption+finance+logistics" to effectively link production, circulation and consumption.

#### **4.3. To Speed up the Rural Revitalization Platform System Construction and Scene Embedding**

Commercial banks should build a solid platform, create a scene and improve the universality of financial services. Vigorously support the construction of platform system, increase the application of big data and intelligent decision-making in the field of inclusive finance, carry out differentiated reengineering of wind control degree, wind control process and data model to meet the requirements of online, automated and intelligent development of business, accurately depict farmers, refine farmers' labels, accurately tap the loan demand of farmers and leading agricultural enterprises, automatically select appropriate financial products to recommend to farmers, realize "thousands of people and thousands of facets" of financial product recommendation service, automatically review and approve according to customer information, effectively reduce the financing cost of customers in the three rural areas, and improve the efficiency of financial services. Speed up the construction of open banks, cooperate with government services or third-party platforms, embed comprehensive services such as payment, loan and wealth management in high-frequency life scenes such as government affairs, medical care, schools, shops and transportation, and introduce high-frequency non-financial scenes into bank APP. Through the joint operation of "finance+non-finance", guide scene users to become bank customers, improve customer stickiness and activity, explore new models of inclusive finance services in the three rural areas, and continuously improve the supply capacity and level of inclusive finance services.

#### **4.4. Build an Intelligent Wind Control System that Combines Online and Offline**

In view of the risks of digital financial services for rural revitalization, it is necessary to use digital technology to build an intelligent risk control system. The Bank should establish a full-process and all-round risk management system before, during and after the loan. It should use internal and external data such as bank blacklists, anti-fraud data, criminal records of off-line public security, judicial litigation records and long-term loan records to optimize the risk verification model for enterprises and farmers with preferential policies and strengthen cross-validation and dynamic monitoring of customer information, with the help of multiple platforms such as credit customer early warning, credit investigation monitoring and fund return monitoring of credit customers. Visit and talk regularly to the village committee to obtain timely information changes from customers such as enterprises and farmers. According to the pre-warning information automatically generated by the post-loan management pre-warning system, on-site verification is carried out to realize the "online pre-warning+offline verification" wind control mode and timely eliminate potential risks. At the same time, through customer managers' in-depth visits to customers, visits to the government and acquaintances, pre-loan investigation, post-loan management, information collection, data collection and entry

system, etc., the online and offline access to information is realized, customer information is compared and verified, and measures such as "double-check" and "double-review" of loan issuance are adopted to eliminate the risks brought by information asymmetry as far as possible and improve the risk control ability.

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