

# The Path Exploration and Performance Evaluation of Digital inclusive finance Supporting Rural Revitalization

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**Abstract:** Digital inclusive finance provides digital inclusive services to the outside world by adopting high and new technologies such as computer, cloud computing and big data. Using it in the field of rural revitalization can provide a certain guiding role for resource reallocation, lead rural industries to achieve better development, and provide more reliable support for the process of achieving the goal of accurate poverty alleviation. This paper sums up several common digital inclusive finance models, and explores their specific implementation paths in rural revitalization, so as to provide reference for peers.

**Keywords:** Rural revitalization, Digital inclusive finance, Paths, Performance evaluation model.

## 1. introduction

Rural finance is an important part of the financial system and the backbone of the rural economy's growth and development and the handling of the "three rural" issues. Under the background of continuous improvement of urbanization construction level, many rural resources have been flowing into the urban and industrial fields, resulting in the problems of insufficient supply and single product type in rural finance, which is not conducive to the long-term development of rural finance. Digital inclusive finance, as a new form of business, plays an important role in promoting the implementation of the rural revitalization strategy.

## 2. The Unique Role of Finance in Supporting Rural Revitalization

### 1) Finance Plays a Guiding Role in the Resource Reconfiguration of Rural Revitalization

Providing high-quality services for the real economy is the starting and ending point of financial work. In the light of the major social and economic contradictions in the new era, the focus of national work is to make up for the imbalance and inadequacy of rural development as soon as possible. "Agriculture, countryside and farmers" is an important area of social development and a weak link in social development. In order to effectively implement the requirements of the rural revitalization strategy, capital has always been regarded as an important resource and one of the main carriers of finance. Finance plays a "pushing hand" role in resource allocation, which can lead various excellent resources into the "three rural" area, assist the rural areas to improve the level of infrastructure construction, improve the quality and efficiency of agriculture, promote the process of combining rural production with finance, provide a stronger support in the construction of ecological livable villages, and gradually meet people's yearning and pursuit for a better life.

### 2) Finance Plays a Strategic Leading Role in Rural Revitalization Industry Development

The prosperity of industry is a major goal of rural revitalization and a basic requirement of the revitalization strategy. Under the guidance of relevant national policies, the

rural financial system is becoming more and more perfect, and the supply model of financial services is characterized by diversification. It effectively addresses the problems existing in the financial supply in the development of traditional agricultural industries, effectively coordinates and controls the credit policies, and promotes the rapid integration process of rural primary, secondary and tertiary industries. Taking the promotion of the brand of agricultural products as the guidance, paying attention to the development of the new rural main body, and increasing the financial support, so as to obtain a stronger impetus in the process of standardization and standardization of agricultural production, and gradually moving agriculture from the traditional "production increase" to the "quality improvement" direction. Under the guidance of inclusive finance, we will gradually build a green production and lifestyle, and create a beautiful and livable ecological environment in the countryside.

### 3) Finance is the backbone and pillar to help realize the precise poverty alleviation goal

In the process of implementing the accurate poverty alleviation strategy, poverty alleviation in inclusive finance is a major mechanism for the vast number of farmers to achieve the goal of poverty alleviation, and is also an important guarantee for the implementation of the models of industry, employment, relocation and poverty alleviation. Other Financial Gold Hooks Exposed in Operation

The "high risks" such as asymmetric interest rates and the "high costs" caused by the small scale of loans and the dispersed population distribution are two major practical problems. The rural digital inclusive finance institution, combined with the development of the county economy, went deep into the grass-roots rural areas, grasped the development of rural industries and the living conditions of farmers, and significantly improved the accuracy of financial poverty alleviation, which other financial institutions lacked. Inclusive finance applies the "loan-to-the-full" poverty alleviation model, relying on the local resources endowment and industrial characteristics, accurately selects the poor households who have established files and cards, connects the financial needs, and determines relevant assistance methods, etc., so as to provide a firmer financial guarantee for the success of the fight against poverty.

### 3. The Main Model of Digital Inclusive Finance Serving "Rural Revitalization"

#### 1) E-commerce+Digital inclusive finance

Internet companies, typified by BAT, have made use of their years of hard work in the internet industry to scientifically deploy digital financial services. They have chosen e-commerce platforms as the support, and modern technology as the main method. They have fully applied the advantages that e-commerce can widely attract traffic, integrated third-party payment, micro-credit loans, internet insurance, investment and wealth management and other financial services based on digital technology into e-commerce consumption scenarios, provided convenient and systematic financial services for the vast number of farmers, and effectively filled the "gap" existing in the traditional rural financial services field. For example, Alibaba's Alipay and Ant Borrowing; Baidu Company launched "Duxiaoman Finance" to the outside world; Tencent Launches Wechat payment, "micro-credit" and so on.

#### 2) Agricultural Industry Chain+Digital inclusive finance

Specifically, it takes the organic combination of "industry and finance" as the basic concept, connects the traditional agricultural market in a decentralized state with the assistance of digital technology, takes the effective integration of logistics, information flow and capital flow information within the agricultural industrial chain as the basis, comprehensively collects and reasonably applies various data formed during product circulation, and reduces the product circulation process as much as possible without affecting the efficiency, thus shortening the industrial chain, proactively providing digital financial services with high matching degree with the industrial chain, reducing the cost of financing services, and improving the quality and efficiency. For example, Dabeinong Company has successfully established "Zhinong Shopping Mall" by improving the enterprise management platform, and has run financial services such as financing credit, investment and wealth management through the industrial chain; New Hope Group, on the other hand, uses the form of creating an internet financial platform to provide stable and lasting financial support to its customers both upstream and downstream. The online merchant bank initiated and established by Ant Group announced that its agricultural aid campaign has entered Anhui Province, Jinzhai County and other domestic top 100 counties of agricultural products, enabling growers, farmers and e-commerce providers of agricultural products to receive interest-free support quickly. In this agricultural aid campaign, the internet merchant bank has also invested in digital financial services covering a number of industries and operating entities in Jinzhai County, providing reliable support for the growth and development of rural industries. In April 2020, Jinzhai County officially launched the poverty-stricken county sequence. The local government has vigorously developed the characteristic industries such as Polygonatum sibiricum and Golden Pear, helping the vast number of farmers to rapidly increase their production and income and consolidate their achievements in poverty alleviation. By early 2022, the total cultivated area of Polygonatum sibiricum reached 23,000 mu, the annual output of fresh Polygonatum sibiricum reached 1,500 tons, and the output value reached 67 million yuan, helping more than 1,300 farmers to find jobs [1].

#### 3) the commercial bank of inclusive finance's digital model

Commercial banks are currently a major traditional financial institution serving "agriculture, rural areas and farmers" and revitalizing the countryside. They have always been recognized as the core providers of inclusive finance. Traditional offline business and heavy asset business based on physical outlets are their main operating modes. In the future, they will strive to continue to provide inclusive finance services to the outside world, continue to transition to the "offline+online" linkage service field, make full use of high-tech digital technology, and gradually build new service channels such as mobile finance, e-commerce finance and online small loans, so as to provide better financial services for the implementation of the rural revitalization strategy.

#### 4) Digital Finance Innovative Business Model

In recent years, financial technology has made a lot of progress in its continuous development, and has developed many innovative digital financial service models, such as P2P peer-to-peer lending and online crowdfunding, which to a large extent have created new channels for inclusive finance to provide quality services for the development of "agriculture, countryside and farmers". During the operation of these new financial models, these innovative service models are required to take high-end financial technology as the main means and gradually step into the rural financial field based on the Internet platform. In fact, it is not only the related financial services provided by internet giants such as BAT, but also many other small and medium-sized enterprises that provide the same or similar services. For example, Lenovo Holding Company has launched the P2P peer-to-peer lending platform Yilong Loan. Its biggest feature is that it takes the online financial platform dedicated to serving "agriculture, rural areas and farmers" as its market positioning. Its specific business covers more than 1,000 districts and counties across the country, providing more than 500,000 services for "agriculture, rural areas and farmers" families, individual businesses and small and micro enterprises. However, internet platforms such as "early adopter crowdfunding" and "organic advantage" focus on the field of agricultural crowdfunding, providing a brand-new digital financial model for the implementation of the rural revitalization strategy [2].

### 4. The Path of Digital inclusive finance Helping the Rural Revitalization

#### 1) Increase Digital inclusive finance Education

In order to enable digital finance to provide reliable support for the implementation of the rural revitalization strategy, enhancing the digital inclusive finance literacy of the vast number of farmers is the foundation to help them master the operation and use of digital financial instruments. The government, media, etc. should be continuously strengthened

The publicity of inclusive finance knowledge has enabled farmers to have a more comprehensive understanding of financial platforms such as Alipay, WeChat Payment and JD.COM White Stripes. For poor rural households, rural college students, returning migrant workers and other organizations to organize special training activities in inclusive finance, take the initiative to provide "one-on-one" special financial services projects, to comprehensively improve the villagers' understanding of inclusive finance, on this basis, step by step to improve their practical application ability. We can try to take financial safety education as one of the main contents of the industry in inclusive finance, upload

the inclusive finance policies and news to the financial platform regularly, widely spread the knowledge of avoiding online financial fraud, and enhance the farmers' financial safety awareness and risk factor prevention and control ability as a whole.

2) to enhance the construction of rural information infrastructure

In essence, digital inclusive finance is a brand-new product formed in the process of the integration and development of the Internet and inclusive finance. The construction of rural network infrastructure is related to the development level of digital finance. In view of this, we should strengthen the construction of rural network facilities, improve the development level of mobile internet in the region, and gradually eliminate the digital divide formed between urban and rural areas. Financial institutions should give full play to their functions, increase the research and development of science and technology in rural inclusive finance, take the initiative to "catch up" with developed countries such as Europe and the United States, and introduce high-economy and innovative construction methods, so as to provide greater impetus for the sustainable development of digital inclusive finance in rural areas [3]. For example, rural Wifi equipment can be added to provide high-quality digital financial services to farmers in remote mountainous areas. We can also use the government's preferential policies to promote the "digital countryside" process and increase the penetration rate of digital terminals in rural areas.

3) to increase the supervision and management of inclusive finance

Under the background of the continuous development of the industry in inclusive finance, some lawless elements organize financial fraud, illegal fund-raising and other activities on the grounds of financial innovation services and financial benefits for farmers, which will not only interfere with the orderly operation of the financial market, but also infringe upon the legitimate rights and interests of the vast number of farmers. In order to avoid the above situation, the relevant departments should improve the relevant financial supervision mechanism as soon as possible, so as to promote the healthy and stable development of the industry in inclusive finance and enable inclusive finance to give full play to its supporting role in the implementation of the rural revitalization strategy. In order to reform and innovate the digital inclusive finance technology as soon as possible and truly increase the financial early warning and monitoring efforts, for example, the regulatory authorities should always strengthen the monitoring of capital flows in inclusive finance and accurately identify and filter abnormal capital flows [4]. To create a special financial appeal platform so that the legitimate rights and interests of the vast number of farmers can be better protected.

4) improve the financial credit system

First of all, establish and improve the credit data standard to maximize the sharing efficiency of credit information. Secondly, vigorously promote

The development process of the rural credit industry association, the preparation of credit rating measures, credit service procedures, credit products management system, etc. Finally, strengthen the administrative supervision and management of the rural credit investigation industry, unify the collection standards for the compilation of credit investigation data, and the evaluation system of credit investigation institutions, etc., and improve the access and exit mechanism of the industry as soon as possible, so as to give full play to the function of the credit investigation industry in the rural inclusive finance.

## 5. Performance Evaluation Model of Rural Revitalization

At present, there are many types and quantities of indicators to choose when evaluating the performance of rural revitalization, so the actual evaluation is basically applied with multi-objective comprehensive evaluation model, comprehensive index method, TOPSIS method, etc. The essence of the multi-objective comprehensive evaluation model is to map the secondary indicators in the revitalization index system to the primary indicators by creating a rural revitalization evaluation matrix, and to clearly present the classification and ranking information covered by the original secondary indicators of the evaluated objects in the mapping process, so that different rural revitalization evaluation indicators can be compared horizontally and vertically [5].

When determining the weight of evaluation index, the following three methods are often used: one is subjective weighting method, also called expert judgment method, which mainly relies on experts' own knowledge and experience, and combines subjective judgment to determine the weight of index. Its main advantage is strong effectiveness. The second is the objective weighting method, which measures the weights of the corresponding indicators according to the actual data of different evaluation objects, and can show the magnitude of the information entropy value of each indicator in the implementation of the rural revitalization strategy. The third is the subjective and objective comprehensive weighting method, which combines the advantages of the above two methods.

When constructing the performance evaluation index system of rural revitalization in Anhui Province, the following principles should be followed: firstly, the national strategy should be accurately linked; secondly, the development characteristics of Anhui agricultural industry should be fully reflected; and thirdly, the existing research results should be used for reference. On this basis, the performance level of rural revitalization is taken as the target level, and "agricultural strength" is taken as the first-level indicator, in an attempt to construct and revitalize a performance evaluation index system that is connected with the strategic objectives and the traditional research on "agriculture, rural areas and farmers" (Table 1)[6].

**Table 1.** Performance Evaluation Index System of "Strong Agriculture"

Level 1 indicators	Secondary indicators	Analysis of Indicator Connotation
"Strong Agriculture" Index A1	B1 farm machinery power (10,000 kW)	The power of agricultural, forestry and other power machinery and
	B2 agricultural machinery use area (ten thousand m <sup>2</sup> )	The sum of farming area, sowing area and harvesting area of agricultural machinery
	B3 Crop sown area (10,000 m <sup>2</sup> )	The actual area sown or transplanted with crops
	B4 agricultural science and technology personnel (person)	Number of people engaged in agricultural science and technology
	B5 total grain output (10,000 t)	Total social production of grains, potatoes and beans
	B6 Total output of non-grain crops (10,000 t)	The total output of vegetables, rapeseed, lotus seeds, etc.
	B7 production of livestock and poultry products (10,000 t)	Meat production of pigs, sheep, cattle and poultry
	B8 Grain Yield Per Unit Area (kg)	The ratio of grain yield to actual sown area of crops
	B9 Proportion of Agricultural Output Value in the Province's GDP (%)	The ratio of agricultural output value to the province's total output
	B10 Export rate of agricultural products/commodity rate (%)	Exports/commodities and total agricultural output

Based on the multi-objective comprehensive evaluation method, the "agricultural intensity (SA)" index [7] is calculated:

$$SA = \sum \omega_j SA_j$$

In this formula, the combination weight is represented, which is derived from the objective weight and subjective weight of the comprehensive index.  $\omega_j \omega_{1j} \omega_{2j}$

On this basis, the rural revitalization performance comprehensive index (RRPEI) is determined. The specific value of RRPEI is calculated by using the weighted method. The higher the RRPEI value, the better the promotion effect of the rural revitalization strategy is. The digital inclusive finance shows better performance. Combining with the index size, the performance level of rural revitalization in different regions can be presented before and after ranking.

Concluding remarks:

Digital inclusive finance is an inevitable result of digital development. It better meets the financial service needs of farmers, significantly improves the quality of financial services in rural areas, and provides reliable support for rural revitalization. The specific implementation paths are mainly as follows: first, increase the propaganda and education of Digital inclusive finance; second, improve the construction level of rural network infrastructure; third, increase the financial supervision and management; fourth, improve the financial credit system.

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