Research on the Impact of Digital Finance on Rural Revitalization

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Abstract

Digital finance breaks through the limitations of traditional finance and greatly promotes the process of rural revitalization with its advantages of low access threshold, low transaction cost and covering the majority of long tail people. However, with the continuous sinking of digital finance into rural revitalization, digital finance is also facing new difficulties, and the problems of talent, knowledge and supervision come one after another. Therefore, the government and relevant financial institutions must strengthen the quality education of digital Finance on both sides of digital finance supply and demand, speed up the construction of rural digital finance infrastructure, improve the Top-level design of digital finance, and speed up the formulation of rural digital finance strategic deployment, so as to better help rural revitalization.

Keywords

Digital Finance; Rural Revitalization; Influence Mechanism.

1. Introduction

The report of the 19th CPC National Congress pointed out that the problem of agriculture and rural farmers is a fundamental problem related to the national economy and the people's livelihood. We must always take solving the "agriculture, rural areas and farmers " problems as the top priority of the whole Party's work and implement the strategy of rural revitalization. The strategy of rural revitalization made at the 19th National Congress of the Communist Party of China is a major decision and deployment in China. The 28th meeting of the Standing Committee of the 13th National People's Congress passed *the law of the People's Republic of China on Promoting Rural Revitalization* on April 29, 2021, which fully summarized and refined the rich practical experience of the rule of law in the field of "agriculture, rural areas and farmers", developed and improved the socialist legal system of "agriculture, rural areas and farmers" with Chinese characteristics, which will greatly consolidate the rule of law foundation for rural revitalization, promote the modernization of rural governance system and governance capacity. China's agricultural and rural development has entered a new historical stage. The main contradiction of agriculture has changed from insufficient total amount to structural contradiction. We must deeply promote the structural reform of agricultural supply side. With the modernization of rural governance and the gradual acceleration of rural revitalization, farmers' demand for financial services is becoming more and more diversified. However, due to the disadvantages of traditional finance itself, many farmers' financial needs are not being met [1].

The deployment of traditional financial institutions in rural areas is scattered and few, and the coverage rate is low. In view of the lack of financial products and services in rural areas, and in the traditional financial development, the main body of credit issuance is to reduce costs. Generally, large businesses tend to dilute unit service costs. For the scattered microfinance business in remote areas, due to the relative difficulty in collecting various credit information

and the relatively high transaction cost, traditional financial enterprises are often unwilling or unable to provide corresponding financial services. Therefore, there is a serious financial exclusion in traditional financial services. With the rapid popularization of Internet in twenty-first Century, the "Internet plus" boom has been prolonged, and digital finance has emerged. Digital finance is a new financial business form generated by the deep integration of finance and science and technology. It is a multi-functional finance integrating payment, information processing and resource allocation [2]. Digital finance can solve the problem that traditional finance can not meet the needs of rural residents with its advantages of low access threshold, low transaction cost and covering the majority of long tail people [3]. Its remarkable feature is the integration of digital technology and traditional financial service industry to improve the quality and efficiency of financial services.

At present about rural finance for digital research mainly focus on: digital financial impact on rural relative poverty, digital financial to study the influence of the rural residents' consumption upgrade, digital financial study of effect of increasing farmers' income, digital financial relationship with rural credit research, digital financial impact on the rural economy research and the study of income disparity between urban and rural areas, etc. Among them, Liu Wei studied the impact of digital finance on rural relative poverty based on tracking data and found that digital finance could alleviate individual relative deprivation [4]. Wu Di used spatial Dubin model to study the influence of digital finance on residents' consumption structure and found that digital finance can promote the optimization of residents' consumption structure [5]. Gu Decheng et al. studied the data samples in recent years and found that the income of different regions was directly proportional to the effect of digital finance on poverty reduction and income increase [6]. The research results of Song Xiaoling et al. show that the development of digital financial technology in rural areas has narrowed the urban-rural development gap [6]. Zeng Xiaoyan et al. empirically analyzed the impact of digital finance on agricultural output based on provincial panel data in recent years. The results show that digital finance significantly improves agricultural output [7]. XieJiazhi et al. studied the incentive mechanism of digital finance on household consumption based on CHFS and found that digital finance has a more significant incentive effect on rural household consumption [8]. Wang Xiaohua et al. used a large amount of data to analyze typical cases of digital finance enabling rural revitalization, and put forward the difficulties faced by digital finance in rural areas and innovative suggestions [9]. To sum up, domestic scholars have studied the influence mechanism of digital finance from different aspects of rural areas, but there are few studies on the influence of digital finance on rural revitalization.So how digital finance can help rural revitalization and how to carry out it in the future arethe problems we need to study and explore, which will be conducive to the better development of digital finance in rural areas in the future.

2. Development of Rural Digital Finance

At present, digital finance is developing well in rural areas. In the context of rural revitalization, digital finance has gradually sunk into every link of rural revitalization. With the strong support of the government, digital financial services are more diversified and innovative, and the depth and breadth of digital financial services are constantly expanding. Digital finance is accelerating the development of rural revitalization.

2.1. Strong Government Support

In August 2016, the People's Bank of China issued *the report on China's rural financial services*, which proposed to take improving the level of rural financial services as the main direction to vigorously promote the development of rural digital finance. In 2018, the Chinese Academy of Social Sciences released *the Internet financial development report on China's "agriculture, rural areas and farmers"*. The report pointed out that the financial gap of China's "agriculture, rural

areas and farmers" has been significantly improved under the development of digital inclusive finance. In 2019, the central government issued *the opinions on promoting the organic connection between small farmers and modern agricultural development*. In 2020, the research report on *China's County digital inclusive finance development index* issued by the Chinese Academy of Social Sciences pointed out that the development level of China's county digital inclusive finance has been rapidly improved from 2017 to 2019, serving county small and micro operators and "agriculture, rural areas and farmers". The financial services based on digital credit of the group developed rapidly and grew most significantly. In 2021, the People's Bank of China and the China Banking and Insurance Regulatory Commission jointly issued *the opinions on financial support for consolidating and expanding the achievements in poverty alleviation and comprehensively promoting rural revitalization*, encouraging the vigorous *development* of rural digital finance and improving the ability and level of financial services for rural revitalization. In February 2021, the No. 1 central document first proposed the development of rural digital inclusive finance, supporting the sharing of agricultural credit database in the city and county.

2.2. Digital Financial Services Tend to be more Professional and Innovative

With the country's strong support for agriculture-related digital finance, the competition among financial institutions is becoming more and more intense. More and more digital financial products have started to meet the needs of farmers in various aspects such as capital. Many rural financial institutions, such as Agricultural Bank of China's "Hui Nong E Dai" and CCB's "Yu Nong Dai", are specially designed for farmers with "online, mass and inclusive" loan products, committed to solving the loan problems of farmers. Many banks are rolling out more digital inclusive financial services through big data, cloud computing, artificial intelligence and other technologies to address the capital needs of farmers that have long plagued farmers.

2.3. The Depth and Breadth of Digital Financial Services are Expanding

Rural revitalization focuses on developing rural industries, rural governance, ecological livable construction. For these constantly innovative and developing rural revitalization models and to meet the needs of the country revitalization of the development of each link, many financial institutions began to sink their business focus and provide credit loans for small and micro enterprises based on big data to serve the production, sales and circulation of rural small, medium and micro enterprises. The experience and financial products that serve the construction of urban infrastructure will be used to sink the services of financial technology into the construction of ecological and livable villages,carrying out financing businesses such as digital loans for new rural construction, digital loans for forest right mortgage, digital loans for rural infrastructure and new rural infrastructure. And use financial technology to help rural areas promote the modernization of governance capacity and governance level, so as to make rural areas full of vitality, harmony and order. Digital finance helps rural areas develop investment and financing channels with digitization and financial technology, strengthens the investment guarantee for rural revitalization, innovates the investment and financing mechanism, and speeds up the formation of a diversified investment pattern in which financial resources are inclined to rural areas and actively develop rural areas.

3. Impact Mechanism of Digital Finance on Rural Revitalization

Digital finance is a new financial business form generated by the deep integration of finance and science and technology.Itis a multi-functional finance integrating payment, information processing and resource allocation. Relying on digital technology, digital finance increases the availability of rural financial services, breaks through the problem of financial service cost, alleviates the common credit problem in rural areas and expands the financial coverage.

3.1. Digital Finance Increases the Availability of Rural Financial Services

Due to the limitations of traditional finance itself, there is a certain lack of financial services in economically backward areas. Based on cloud computing, big data and other technologies, digital finance breaks through the limitation of time and space by virtue of its equality, openness, cooperation, sharing advantages and flat organization and management, provides relatively equal financial conditions for economically backward areas and alleviates the regional gap. Due to the lack of credit data and collateral, it is difficult for farmers to apply for loans. The "Huinong e loan" launched by the Agricultural Bank of China adopts the combination of online and offline loans in the form of interest free loans, which can directly complete the loan business on the mobile phone. The popularization of digital finance in rural areas alleviates the financial constraints of farmers in agricultural production, contributes to the promotion of large-scale, intensive and professional agricultural production, and promotes the development of rural revitalization [10].

3.2. Digital Finance Breaks through the Problem of Service Cost at the Supply and Demand Side

On the demand side, digital finance has fast approval speed and timely lending. It can directly carry out mobile phone operation. Using big data, cloud computing and other technologies, it can quickly and conveniently handle the business, reduce the use cost of financial services and increase farmers' willingness to use digital finance. On the supply side, the cost of establishing outlets in remote areas has been greatly reduced. Financial institutions can handle a large number of businesses in a short time by using Internet technology, which improves service efficiency and efficiency. The use of digital technology reduces the marginal cost of both the demander and the supplier of rural financial services, and solves the problem that the rural financial operation cost is difficult to be covered by the interest margin income.

3.3. Digital Finance Alleviates the Widespread Credit Problem in Rural Areas

The traditional financial system has a strict credit review system. Due to the wide geographical distribution in rural areas, the high cost of information collection and the unclear definition of rural related property rights, farmers lack credit data, resulting in loan difficulties. Many banks have begun to implement the "agricultural big data + finance" agricultural support model, and launched loan services such as "interest free loan" and "daily interest", so as to solve the problem of "expensive loan and difficult loan" for farmers. E-commerce banks have launched the "rural revitalization and agriculture assistance plan" all over the country, reached cooperation with the government and committed to providing loan services for farmers, Under the government's collection of farmers' credit data, the farmers' credit data is entered into the system, and the loan application can be viewed at any time, and all procedures can be completed online, which is convenient and fast. E-commerce banks also use computer technology to identify farmers' crops, so as to judge the output and quality of agricultural products and give farmers appropriate credit lines [11]. It can not only reduce the risk of difficult recovery of e-commerce bank loans, but also solve the loan problem of farmers and improve the enthusiasm of farmers' loans.

3.4. Digital Finance Expands Financial Coverage

Rural areas have developed digital lending models, such as P2P online lending platform, digital supply chain model, such as pioneer Beijing agricultural loan, digital insurance model, such as Beijing agricultural loan, which provide diversified services for farmers, covering almost all the financial needs of farmers in the process of rural revitalization. Digital finance widens the supply scope of financial services, which is conducive to the improvement of financial supply side benefits and can also better meet the capital needs for the integrated development of rural industries.

4. Problems of Digital Finance Affecting Rural Revitalization

With the accelerated pace of rural revitalization, the requirements for digital financial services are becoming higher and higher. Simple digital financial services can no longer meet the needs of farmers, which requires strong financial support. Due to the limitations of traditional finance and the imperfection of digital finance, rural revitalization has produced new financial difficulties.

4.1. There are Regulatory Constraints When Digital Finance Helps Rural Revitalization

At present, China's supervision of traditional financial services is relatively strict, but the supervision of digital financial services is not perfect. As an emerging industry in recent ten years, digital finance has established some relevant laws and regulations. Generally speaking, all aspects of digital finance are not fully involved, so there are some legal loopholes. In order to improve the competitiveness of the industry, more and more financial institutions adopt the mode of mixed operation, and the business cannot be independently identified, which leads to the inability of laws and regulations to restrict their operation and brings a certain regulatory gap. Because the government has not issued relevant laws and regulations to restrict digital finance, the access threshold of digital finance is too low, and many enterprises operate without qualification, the digital financial market is mixed, which greatly increases the market risk.

4.2. There are Talent Constraints When Digital Finance Helps Rural Revitalization

The construction of digital financial platform is highly professional, so the selection of talents is very important. The development of digital finance needs talents in finance and science and technology. With the acceleration of rural industrialization, digital financial services pay more attention to the combination of finance and technology. It needs compound people who master financial knowledge and are good at technology and have a certain understanding of the situation of rural farmers to appear. However, due to the remote and backward regional location in rural areas, it is difficult to attract excellent talents. Moreover, a large number of digital financial talents are mainly concentrated in financial institutions in first tier cities. They do not have a comprehensive grasp of the rural situation and do not understand the real needs of farmers.

4.3. There are Knowledge Constraints When Digital Finance Helps Rural Revitalization

At present, China's rural areas show a hollow trend. Most of the people left behind in rural areas are young children and the elderly, with poor learning ability, low level of education and low acceptance of new technologies. And there is a serious problem of information lag in rural areas. Due to the lack of financial knowledge and serious information asymmetry, farmers may be induced by bad institutions to buy non-standard financial products and encounter financial risks, which greatly weakens farmers' enthusiasm to use digital financial services. According to the statistics of the National Bureau of Statistics, the education level of urban residents is much higher than that of rural residents. It can be seen that China's rural residents are facing a severe "digital divide". The "digital divide" is not only reflected in farmers, but also reflected in the low degree of digitization of agriculture, the immature foundation of digital agriculture, the low level of rural data collection and utilization and the lack of data governance capacity of county-level governments.It further hinders the popularization of digital finance in rural areas.

4.4. There are Constraints on Infrastructure Construction When Digital Finance Helps Rural Revitalization

According to the 47th *statistical report on China's Internet development*, by the end of 2020, the number of Internet users in rural areas had reached 309 million, and the Internet penetration rate was 55.9%. By November 2020, about 2% of poor villages in China had not realized Internet connection, and some areas had not realized 4G network coverage. Many outlets of financial institutions are concentrated in urban and rural areas, and farmers can enjoy limited financial services, which weakens farmers' enthusiasm to use digital financial services. The low income of rural digital finance makes financial institutions lack the power to build outlets and upgrade equipment in rural areas, and the backward information collection system in rural areas makes the transaction data in rural areas fragmented, and the financial institutions make insufficient use of the existing data, making it difficult for farmers to make loans.

5. Countermeasures and Suggestions

5.1. Strengthen the Supervision and Risk Prevention Measures of Digital Finance

At present, the supervision system of digital finance is divided by the central bank, CSRC, CBRC and other departments. The next step to be strengthened is to establish a prudential supervision system and supervision system for digital finance, strengthen communication and coordination between regulatory departments, and avoid regulatory blind spots in separate and mixed industries. In the environment of mixed operation, we should conduct all-round and multi angle supervision on various digital financial entities to prevent and control financial cross risks. First, we should clarify the market access qualification and avoid more and more unlicensed operations. Second, we should strengthen supervision, strengthen the daily supervision of licensed enterprises, improve the information disclosure system, and order unlicensed enterprises to make corrections to protect the rights and interests of consumers. Third, establish a daily risk detection and prevention system. There are often risks such as arbitrage space and financial fraud in the financial market. Farmers lack certain financial knowledge and quality, which is easy to cause losses to farmers. In order to ensure the smooth operation of the market, we should speed up the unification of the indicators and caliber of digital finance, and realize the automatic collection of daily financial transaction data, intelligent analysis of risk data, comprehensive utilization of compliance conditions and maintain data security to ensure the safe and stable operation of digital economy.

5.2. Strengthen the Quality Education of Digital Finance on Both Sides of Digital Finance Supply and Demand

With the continuous sinking of digital financial services in rural areas, financial institutions have successively launched financial services such as online loans, online insurance and online funds, which also puts forward higher requirements for the financial quality of both supply and demand sides of digital finance. First, quality education for digital financial suppliers. Digital financial providers should clarify the needs and preferences of farmers and guide consumers to use financial products correctly, so as to improve the efficiency of digital financial services. The second is the quality education for those who need digital finance. At present, farmers do not have a deep understanding of financial knowledge and less understanding of digital finance. The government should pay attention to the education of digital finance knowledge and strengthen the popularization and education of digital finance knowledge. The focus is to make farmers aware of the convenience and advantages of digital finance, give play to their subjective ability of learning, and cultivate a number of people who make good use of Internet technology, finance,agricultural knowledge is a new type of agricultural production and management

subject. By improving farmers' financial knowledge and quality, we can make digital finance play the greatest role in rural areas and better promote the process of rural revitalization. Third, cultivate rural digital financial talents. To develop digital finance, rural financial institutions urgently need to make up for the shortcomings of digital finance talents and cultivate rural digital finance talents. Colleges should vigorously cultivate students' digital technology ability and make use of interdisciplinary construction to help cultivate rural digital finance talents. Rural financial institutions can cooperate with financial institutions in first tier cities, form complementary advantages and give play to synergy through communication and cooperation between the two sides. Rural financial institutions can optimize the salary reward system and attract talents by means of performance appraisal and improving salary level.

5.3. Accelerate the Construction of Rural Digital Financial Infrastructure

Only by laying the cornerstone of rural infrastructure first, can digital finance have a better foothold in rural areas. First, we should accelerate the construction of a "digital village", further improve the coverage and accessibility of the Internet and mobile communications, and improve rural digital financial network facilities. Second, we should speed up the construction of information terminals and service supply, and develop information terminals and Internet products suitable for rural revitalization. Third, we should promote the digital transformation of rural infrastructure, accelerate the upgrading of rural digital financial infrastructure, and adapt to more innovative services of digital finance in the future. We need actively develop innovative products that adapt to the pace of rural revitalization at all stages, meet the differentiated and personalized needs of farmers, strengthen the construction of rural credit investigation platform and payment and settlement platform, and build an inclusive financial credit information system to provide more convenience for farmers' loans.

5.4. Improve the Top-level Design of Digital Finance and Accelerate the Formulation of the Strategic Deployment of Rural Digital Finance

The 14th five year plan has clearly put forward the strategic positioning and development path of financial services for rural revitalization. We should promote the organic integration of digital finance and rural revitalization strategy from the perspective of "national chess game", so that digital finance can enable the high-quality development of agriculture and rural areas. The strategic deployment of digital finance should be adjusted to local conditions. Due to the differences in geographical conditions, development level, industrialization strategy and farmers' financial knowledge in different rural areas, farmers have different requirements for digital financial services. Financial institutions need formulate personalized strategies according to the conditions of different rural areas, such as the economic development in the western region is relatively backward and financial institutions need to make targeted planning according to the problems such as the lack of financial resources in the western region. The government should also formulate corresponding laws and regulations to strengthen political support for rural digital finance. With the continuous sinking of digital finance into rural industries, rural financial institutions should pay timely attention to the transformation trend of rural financial demand, and constantly develop more innovative financial services to meet the diversified needs of farmers for finance.

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