# Analysis of the Means of Promoting Rural E-commerce through Digital Financial Inclusion

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**Abstract s**ince 1997, the industry of e-commerce in China entered the embryonic stage and has been in continuous development for the following 20 years. Nowadays, the e-commerce companies have derived a network transaction form with Chinese characteristics, and the e-commerce industry itself has become a new track with great potential. The aim of this study is to explore and investigate the possibilities of digital financial inclusion in promoting rural e-commerce, providing theoretical reference and a realistic path for rural revitalization.

**Keywords:** Rural revitalization, rural e-commerce, digital financial inclusion, analysis of various paths.

## 1 Introduction

1997 to 1999 was the embryonic stage of the development of e-commerce. The internet was growing and the new concepts about the Internet were gradually coming into view, and entrepreneurs saw the potential of new forms of trade interaction based on the Internet. In December 1997, China's first B2B website, "China Chemical Network" was officially launched. It was followed by the first B2C website "8848" launched in May 1999 and the C2C business website "Eachnet" established in August. E-commerce had already had its foundation at this time. In 2000-2002, the growing trend of e-commerce industry was stagnated. At this stage, the development of


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e-commerce as well as the confidence of entrepreneurs have been largely affected. With the official establishment of the China Electronic Commerce Association and the "Interim Measures for the Administration of Online Banking Business" promulgated by the People's Bank of China in 2001, the development trend of China's e-commerce has been unstoppable. Nowadays, China's e-commerce has completed the transformation and upgrading and has gradually formed a unique network transaction form with Chinese characteristics. Although the popularizing rate of e-commerce in China's rural market is still low, the consumer population in rural areas reaches 315 million, accounting for 43.3% of the total number of e-commerce in the country.Needless to say, the development of rural e-commerce can have a great impact on China's e-commerce. As the report of the 20th National Congress said, "To comprehensively build a modern socialist country, the most arduous and onerous task is still in the countryside." We will give priority to agricultural and rural development, integrate urban and rural development, and eliminate the barriers of factors of production between urban and rural areas."Only by combining urban and rural areas, allowing agricultural goods to be purchased by urban citizens, sending urban materials and talents into the countryside, can we achieve the purpose of revitalizing the countryside and developing China's economy.

At present, the factors restricting the development of rural e-commerce mainly come from the cost of transportation and the construction of infrastructure. Besides, farmers cannot build up their capital and urgently need sufficient financial support to overcome the difficulties in the early stage. However, for farmers, because of uncertainties such as credibility, it is difficult for them to loan from ordinary banks. The birth of digital financial inclusion has effectively solved these problems. Digital financial inclusion is an important means of boosting rural revitalization and an opportunity to promote rural economic development. Through big data, cloud computing, blockchain and other technologies, digital financial inclusion effectively removes regional restrictions, eliminates financial service barriers, solves credit risks, provides financial service support for small and micro enterprises and rural households, and increases the financial ability of farmers. The advantages of digital financial inclusion come from the following points: Firstly, the wide range of services. Even in certain remote areas not covered by bank branches and ATMs, customers can complete non-cash transactions on mobile phones, computers and other terminal tools through the network, enabling more direct financial services and wider customer coverage. The second is the popularization of customer groups, through the

use of Internet technology, big data analysis, and digital financial inclusion further strengthening the allocation of resources, and more accurately meeting the personalized needs of financial services. The third is risk management. Financial institutions can analyze the daily transaction data flow and information flow through cloud computing and big data technology, improve the risk identification ability and credit approval efficiency, effectively judge the credit level of customers and make all customers enjoy services without obstacles. The fourth is low transaction costs. Under the digital network platform, pricing relies on online, thus digital financial inclusion reduces the occupation of offline personnel and equipment, greatly reducing the operating and transaction costs. It can be seen that digital financial inclusion plays an important role in supporting the development of rural e-commerce, driving rural revitalization, and promoting China's economic development.

However, at present, there is no specific research and analysis on the means of digital financial inclusion to help the development of rural e-commerce in China. This essay focused on the "means of digital financial inclusion to promote the development of rural e-commerce to achieve rural revitalization". The innovation of this project can be divided into the following three points. Firstly, the project discussed in detail the specific links and channels that digital financial inclusion can be used in rural revitalization (focusing on the rural e-commerce industry). Secondly, the project studied rural e-commerce, which was rarely mentioned in the rural revitalization strategy, and explored the threshold of e-commerce development and how to overcome this threshold with digital inclusion finance. Thirdly, the project focused on the specific model of rural revitalization (digital financial inclusion helps rural e-commerce) and studied and tested the support of digital financial inclusion to farmers.

## 2 Literature Review

Solving the problems of rural financial development has always been the top priority of our country. The concept of rural revitalization is to give full play to all resources to feed the countryside and revitalize the rural economy through various channels according to the national conditions. The main channel of rural revitalization must not focus solely on the development of the countryside or the city, but on the development of the city to drive the development of the countryside. For example, [1] Liu Yansui proposed that urban and rural areas should be always considered and

combined together. Only we develop two regions at the same time can we achieve sustainable development of the two. According to the theory of the man-land relationship regional system, the integration between urban and rural areas system can provide the theoretical understanding for new cognition of the urban-rural relationship. He believes that the focus of rural revitalization is to promote the urban and rural integration systems to achieve optimization and reconstruction, which further boost the acceleration the complete of a multi-level target system that contains the basic network, development area, village space field, and revitalization pole in rural area. Based on the research on the relationship between urban and rural areas and development, the right way to effectively achieve the integration of urban and rural areas and the basic network of urban and rural areas should be found and explored quickly. The digital economy is a potential channel.

The income gap, between urban and rural residents, is reduced effectively by digital financial inclusion and, at the same time, the reducing income gap will also drive the development of digital inclusive finance and other services. On the whole, the development of the digital economy will promote the integration of urban and rural regions from the side. Based on the perspective of Internet financial services, [2]Song Xiaoling provided the evidence of income gap between rural and urban regions in different provinces in China through the Thiel Index and then built a balanced panel data model with the data of 31 provinces from 2011 to 2015 to empirically-analyze the impact of digital financial inclusion on the income gap between urban and rural areas. His research shows that the income gap between urban and rural residents can be reduced through the development of digital financial inclusion; Among the control variables, there is significant impact on the urban-rural income gap brought by factors such as the level of urbanization, the degree of opening up to the outside world, and fiscal expenditure. It can be seen that the development strategy and general ideas of digital financial inclusion should be constructed in China which could further reshape the development path, build multi-party cooperation and mutual support of the digital inclusive finance ecosystem.

In general, on the road to rural revitalization, China has achieved the "combination of urban and rural areas", through the development of the city to boost the development of the countryside, to maximize the sustainable development of the rural economy, and at present, it is more important to explore and expand the new track based on the digital economy. Digital financial inclusion is undoubtedly a desirable new track and an opportunity to promote rural economic development. Through big

data, cloud computing, blockchain and other technologies, digital inclusive finance effectively removes regional restrictions, eliminates financial service barriers, solves credit risks, and provides financial service support for small and micro enterprises and rural households. From a practical data perspective, Zhang Xun et al. argued that humanity is experiencing a third technological revolution based on the Internet, with profound implications for efficiency and equity [3]. Combined with CFPS, they concluded that digital finance promotes inclusive growth in China and improves entrepreneurial behavior among rural farmers. Guo Feng et al. found that the development of digital finance has a stronger role in encouraging entrepreneurship in provinces with low urbanization rates and small and micro enterprises with less registered capital by comparing the registered information of new enterprises with regional entrepreneurial activity and the provincial-level data of digital inclusive finance. Combined with the two studies conducted by the previous several scholars, it can be concluded that digital financial inclusion can indeed bring significant positive impacts in terms of efficiency (de-regionalization), equity (elimination of financial service barriers), and small and micro enterprises in rural areas (low urbanization rate).

In terms of theory, digital financial inclusion has a positive effect on the whole economy [4]. Hao Yunping (2018) used the Cobb-Douglas production function model as a theoretical framework and combined it with SAR to study the contribution and impact of digital financial inclusion on economic growth, and drew the following conclusions. He concluded that digital financial inclusion not only has a strong spatial correlation and agglomeration effect but also has a positive promoting effect on economic growth. Moreover, the contribution of digital financial inclusion to economic growth is not just a single linear effect, but a cubic curve. In summary, digital financial inclusion is undoubtedly an indispensable driving force on the road to rural revitalization. It effectively solves the existing problems from multiple aspects and successfully builds a solid bridge between financial services and rural farmers and small and micro enterprises. Rural e-commerce can perfectly rely on digital inclusive finance so that agricultural products can flow to such a new channel for a broader market—an urban area. The main source of income in rural areas is agricultural products and rural e-commerce can help farmers sell their agricultural products through various platforms more efficiently so that agricultural products can be consumed in a larger market. Despite this, rural e-commerce also has certain obstacles on the road to development. For example, from the perspective of logistics,

considering that some rural areas are in relatively remote places, infrastructure, transportation and other factors will become obstacles to the development of rural e-commerce. In addition, farmers' awareness of e-commerce and the starting money for participating in the e-commerce industry are also aspects that need to be considered [5-7]. Guo Chenglong Rural e-commerce represented by "Taobao Village" is a natural product of the combination of the Internet and the rural economy. After the in-depth investigation of Taobao Village, it is found that the economic foundation is good, and the economy of Taobao Village close to the market tends to be industrialization; Taobao villages in remote areas with weak economic foundation develop their local economy with advantages such as agricultural endowment, traditional resources and culture. The spontaneous formation of "Taobao Village" has typical characteristics of industrial clusters, but the cluster level and management efficiency of "Taobao Village" are generally low, and vicious competition appears in the same place and village [8-12]. Hong Yong believes that strengthening the training of rural e-commerce talents, improving the product quality traceability system, implementing branding and differentiation strategies, improving the infrastructure of rural e-commerce, and exploring the financial path of rural e-commerce are important ways to improve and promote the development of rural e-commerce.

In summary, rural e-commerce is very successful in a certain geographical range. In order to allow more rural e-commerce to develop, the process of reducing vicious competition between rural areas, improving the level of economic efficiency, and improving the infrastructure of e-commerce is necessary. Exploring digital financial inclusion is key to facilitate and improve the path of rural e-commerce.

# 3 Discussion And Analysis

## 3.1 Development of E-Commerce Model

### 3.1.1 Public Model.

Public model, as known as large online shopping platforms (such as Taobao, Tmall, Jingdong, TikTok, etc.) In terms of advantages, the large-scale online shopping platform is very mature. It has good security, a large number of online customers, and a large flow. For example, to open e-commerce at Taobao, one could enjoy the benefits of low cost, quick effect and low risk because Taobao's entrepreneurial model is mainly an asset-light business model that is relying on

third-party logistics and Alipay as a payment platform. In addition, the public model of the opening shop could gain higher popularity because the platform such as Taobao has years of publicity and promotion and even has become synonymous with online shopping so that entrepreneurs can undoubtedly get greater customer flow. For example, in the "1111", "618" and other activities, online shopping platforms will provide considerable benefits for customers to attract more and more intensive customers, which not only gives merchants some benefits but also allows each merchant to enjoy a great number of customers. But there are many e-commerce competitors on this platform. There are countless competitors in the same class or similar products. This is a big challenge for every e-commerce individual that wants to create a group of loyal customers and maintain a stable product reputation. More work is needed to promote personal products in the early stage and to build up customer flow.

**3.1.2 Local Model.**

All kinds of e-commerce malls are built by local organizations and governments or agencies. In terms of advantages, for local businesses, the localism and particularity of the product can be strengthened, because the customers of the product produced just have demand for and acceptance of local products. Compared with other models, the local model has a certain guarantee in terms of income stability. In addition, the local model of e-commerce also has certain advantages in the transportation chain. Because the main user groups and businesses are locked in a certain community scope, the transportation chain is not as complicated as other e-commerce models. Taking the community e-commerce platform "Koala Select" as an example, the Koala Select model is mainly to develop convenient shop owners as the head of group buying, because the service group of Koala Select is mainly residents of the community, so the head of Koala selects will give priority to the address in the community or around the community when choosing the store address. Because this head will save a lot of trouble in the distribution through the form of group buying, greatly reducing logistics costs, and there is enough room for residents to provide door-to-door delivery services. In addition, to retain customers, Koala Select will distribute the excess profits to the residents of the community in the form of concessions, so that residents can enjoy high-quality and cheap goods. However, when it comes to the disadvantages of the local model, the local model is also limited by user groups. Because the main suppliers and customers of the local

model are from the local community, this model has relatively few customers and cannot have the same popularity as the one on the public platform. Besides, it has relatively poor operational technology and efficiency because the operations behind the platform all come from local governments and institutions, which means it cannot be reasonably and efficiently operated and maintained like large domestic platforms.

### 3.1.3 Self-Build Model.

Generally, it is the e-commerce platform and website built by the product supplier itself, or it is the use of social platforms such as WeChat to sell its products by establishing group chats or personal public accounts. First of all, in terms of advantages, under the self-built model, the users undoubtedly have greater loyalty and demand for the product. In this case, the customer group obtained is more stable, which means it is not easy to lose its customer group because of the exclusivity of competition. The platform is fully operated by e-commerce individuals, which is more efficient, more flexible, and can be adjusted according to the situation promptly. The disadvantage of the self-built model is the publicity work for customers in the early stage. Because it is started by an individual or a single team, there is a lack of sufficient customer flow at the early stage, and there is no opportunity to directly obtain as same benefits as those from large platform e-commerce, and customer flow is difficult to establish. E-commerce individuals need to advertise for themselves to solve the problem of lack of customers in the early stage.

### 3.1.4 Live Broadcast Model.

In recent years, it has gradually become a mainstream form of e-commerce sales, which directly promotes products through live broadcasting and achieving considerable sales through a series of combinations such as discounts, activities and participation of Internet celebrities. E-commerce individuals can rely on the corresponding live broadcast platform, such as the current most popular "TikTok" to sell their products through live broadcasting. Due to the high flow of customers of the platform, for merchants, it is indeed possible to complete a relatively large volume of customers in a relatively short period (during the live broadcast). In terms of disadvantages, it is relatively difficult for individuals to open accounts and attract fans in the early stage. Individuals need to pay attention to ensure their popularity and customer flow through some early basic publicity, making short videos or making

cooperation with network celebrities and preheating before live broadcasting with goods. Especially in the live broadcast process, the ability of the anchor is the key. For example, anchors need to have the ability to attract potential demand and explain professional knowledge when selling on the spot, to improve consumer awareness and promote consumers to have the desire to buy. They have to bargain with the customer according to product needs, set transaction turning points, and set main products. Besides, they should have the ability to carry out on-site operation demonstrations when selling the product thus audience can see more directly. In addition, it is necessary to follow up the customer service after the live broadcast and resume. Merchants also need relatively complete and comprehensive teams to be responsible for every single sector.

### 3.2 Analysis of Demand Side

According to the previous analysis of various types of e-commerce models, the scale of capital required for e-commerce is not large, especially for rural e-commerce merchants that rely on large e-commerce platforms. (Public Model)However, for those who want to sell in self-built models or live broadcasts, the demand for funds will be much greater than the former, but these e-commerce models will also bring greater rewards to farmers. The basic start-up capital required for rural e-commerce in the form of live broadcasting covers equipment costs ranging from about 30,000 to 100,000 yuan, and the cost of purchasing advertisement, customer flow, the costs of recruitment of employees, and publicity are also quite high, which is challenging for ordinary farmers who want to try e-commerce and live with goods. Moreover, the logistics cost of rural e-commerce is also a part that needs to be considered. The logistics cost of agricultural products includes labour costs, transportation costs, and storage costs.In terms of human cost, due to the scarcity of logistics personnel in rural areas and the lack of professional logistics knowledge, logistics efficiency is low. In terms of transportation costs, rural traffic is inconvenient, logistics vehicles need to go a long way and take a long time to arrive, which consumes a great time. In terms of storage, because the storage area in rural areas is simple and the rent is high, the storage cost is also high. Combined with the above analysis of costs, farmers need to obtain sufficient start-up capital through loans and other means if they want to enter the e-commerce industry. However, compared with urban enterprises or large-scale e-commerce merchants, it is difficult for ordinary farmers to borrow from banks and

enjoy financial services. The reason why farmers have difficulty in borrowing comes from the lack of a rural social credit system in our country. It is difficult for farmers' credit to be adequately proven and guaranteed from credit investigation. Besides, the information obtained by financial institutions is very limited. The evaluation standard of credit in rural human society will not work here in financial institutions. Loans related to agriculture are also risky for banks. Agricultural products are more likely to be affected by natural disasters and other factors, thus the risk is difficult to control. In addition, the agricultural industry does not have many fixed assets, so banks are reluctant to lend. It can be seen that it is the credit problem and the uncontrollable factors generated by the distance that leads to the failure of farmers to loan from banks. This further illustrates the need for inclusive finance for rural e-commerce. Digital inclusive finance combines big data, cloud storage and other technologies to achieve more efficient, faster and more accurate financial services for farmers who need them so that they can further join the e-commerce industry.

### 3.3 Means Of Promotion & Suggestion Towards Further Development

Combined with the previous analysis of the development of rural e-commerce at this stage, the current constraints on the development of rural e-commerce mainly come from the following three aspects. Firstly, the infrastructure in remote areas is still imperfect, which greatly delays the delivery time. Besides, some agricultural products are time-sensitive and not easy to keep fresh, which leads to high transportation costs. Secondly, there is an aging population in rural areas, and most villagers do not have the ability and consciousness to contact the Internet, which leads to their lack of awareness to sell their agricultural products through rural e-commerce. The third is that the early customer flow construction of rural e-commerce also needs capital support. From the perspective of traffic construction, digital inclusive finance can indeed play a very effective role in the early stage of the development of rural e-commerce. The capital to build the customer flow in the early stage is a large price for the farmers since most of the farmers cannot fully rely on their funds to build the customer flow. Moreover, completely relying on the individual can not quickly see the objective reward in the short term. The support of digital inclusive finance is necessary, which can effectively reduce financial costs for farmers with the help of information technology. In terms of an ageing population and lack of awareness, the government should provide corresponding policy support on vigorously building a

talent team and training a related publicity team. Secondly, considering the unique humanistic form of the township, each village is like a "big family". There is a relatively strong binding connection among rural villagers. It is more hopeful to encourage more farmers to actively join in the rural e-commerce track so that we can cultivate more potential rural e-commerce individuals, and set an example with actual cases for more and more villagers. We must combine digital development with traditional industries and enhance farmers' awareness as soon as possible from the overall integration. Finally, in terms of infrastructure construction, though digital inclusive finance can not directly help it, the chain reaction of digital inclusive finance on promoting rural e-commerce may indirectly stimulate the improvement of infrastructure construction, because people will immediately see the need to complete infrastructure from the increasingly large rural e-commerce groups and the potential of rural goods that are waiting to be supplied from the rural area.

## 4 Conclusion

Based on this research and analysis, digital inclusive finance is undoubtedly an important means to promote rural revitalization. Digital inclusive finance effectively improves the ability to maintain the cash flow of rural e-commerce individuals. It removes the credit problem of lending and accurately provides fast help for groups in need of financial service support. In addition, digital financial inclusion also improves the ability of farmers to resist risks in the transportation of agricultural products and stimulates the enthusiasm of potential rural e-commerce markets and farmers.

First of all, this research analysis lacks quantitative analysis of data samples such as actual cases of the development of rural e-commerce under the support of digital inclusive finance at this stage, as well as mathematical model support based on testing digital inclusive finance to promote the long-term development of rural e-commerce. Secondly, this study did not mainly discuss the development prospects of rural e-commerce in extremely remote and backward areas.

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