

Original Paper

Study on the Development Status and Countermeasures of Rural E-commerce Logistics in the Context of Rural Revitalization

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Abstract

Since the implementation of the rural revitalization strategy, China's rural e-commerce logistics industry scale is gradually growing, e-commerce platforms are gradually emerging in rural areas, becoming an important engine of rural economic development, rural e-commerce logistics demand has seen a blowout growth, agricultural products, "upstream" channel needs to be expanded. This paper takes China's rural e-commerce logistics as the research object, through analyzing the development status quo of China's rural e-commerce logistics under the background of rural revitalization, and pointing out that China's rural e-commerce logistics development is currently faced with such problems as imperfect infrastructure, inefficient distribution of goods, the lack of professional logistics management personnel, and the low level of logistics informationization. In order to solve these problems, it is necessary to strengthen the construction of rural logistics infrastructure, improve the level of rural informatization, strengthen the training of rural e-commerce logistics personnel and promote the implementation of the common distribution model of logistics enterprises, in order to promote the construction of the rural e-commerce logistics system, so as to help realize the revitalization of the countryside.

Keywords

Rural revitalization, Rural e-commerce, Logistics, Problems, Countermeasures

1. Introduction

With the booming development of China's economy, the e-commerce industry, as a new form of economy, is rapidly emerging under the wave of the times, and has made great contributions to the prosperity of China's national economy. Especially in the context of rural revitalization, rural e-commerce has become a new driving force for the promotion of sustainable development in the

countryside.2021 Document No. 1 of the Central Government proposes, "We should comprehensively promote the consumption of the population, deeply promote the development of e-commerce, strengthen the construction of logistics infrastructure, and promote the docking of production and consumption in urban and rural areas." Rural revitalization is based on industrial revitalization, and rural e-commerce, as an important industry, can promote the upgrading of the rural consumption structure, and at the same time effectively eliminate the spatial barriers to the integrated development of urban and rural areas, fully release the consumption potential of the countryside, and inject new vitality into the economy of the rural areas, so as to promote the rural economy to achieve high-quality development. In this context, this paper analyzes the development status quo of China's rural e-commerce logistics, analyzes the main problems faced by the development of rural e-commerce logistics development, and puts forward optimization proposals, aiming to promote the healthy development of China's rural e-commerce logistics, and help realize rural revitalization.

2. Current Situation of Rural E-Commerce Logistics Development in the Context of Rural Revitalization

2.1 National Policies Support the Initial Establishment of Rural E-commerce Logistics System

In order to gradually improve the rural logistics and distribution system, the government has introduced a series of preferential policies to incentivize, guide and help logistics and distribution enterprises to expand their business to rural areas. The Strategic Plan for Rural Revitalization (2018-2022) explicitly pointed out that it should intensify the construction of comprehensive pilot projects of e-commerce into rural areas, strengthen the rural logistics infrastructure construction and the logistics and logistics construction, and gradually establish a perfect standard system for rural e-commerce and logistics development. The "2020 Work Points for Digital Rural Development" issued in May 2020 explicitly states that the rural e-commerce and logistics system should be accelerated and smoothed, the "Internet +" agricultural products out of the village into the city project should be implemented, and more efforts should be made to popularize e-commerce into the countryside, and to promote the Opinions on Accelerating the Construction of Rural Delivery and Logistics System issued by the General Office of the State Council in 2021 pointed out that it is necessary to improve the county, township and village delivery service system, make up for the short boards of rural delivery and logistics infrastructure, and promote the construction of the circulation system in rural areas, so as to contribute to the overall revitalization of the countryside and the smooth opening of the domestic general circulation. It also proposes to establish 100 rural e-commerce express cooperative development demonstration zones in the country by the end of June 2022. Led by the central policy, localities have also formulated corresponding policies according to the situation in order to promote the construction of rural e-commerce logistics system, which has brought new opportunities for the development of rural e-commerce logistics.

2.2 Growing Market Size of Rural E-commerce Logistics

The development of the Internet has provided good Internet conditions for rural areas, and with the popularization of the Internet in rural areas, the scale of rural Internet users is constantly expanding. According to the 2021 Statistical Report on China's Internet Development Status, it can be understood that all administrative villages in China have now realized village-to-village broadband, effectively solving the communication problems in rural areas. In 2021, 284 million farmers in China have become Internet users, and the Internet penetration rate in rural areas has reached 57.6%, which is an increase of 1.7 percentage points. The popularization of the Internet in rural areas has laid a solid foundation for the online sales of agricultural products. According to data from the Ministry of Commerce, in 2021, China's rural online retail sales reached 2.05 trillion yuan, an increase of 11.3% compared with 2020, a growth rate of 2.4 percentage points, and the sales of agricultural products in the country exceeded 422 billion yuan, an increase of 2.8% compared with 2020. Under the influence of the expanding scale of the e-commerce market, the scale of upstreaming of agricultural products has continued to grow, broadening the sales channels of agricultural products, effectively promoting farmers' income, and helping to realize rural revitalization. In addition, by the end of 2020, China had built 2,120 county-level e-commerce public service centers and logistics distribution centers, as well as 137,000 village-level e-commerce service sites, realizing the full coverage of express outlets in townships and villages. As the consumption level of urban and rural residents improves and the demand for green and organic agricultural products continues to increase, the size of the rural e-commerce logistics market will continue to expand in the future.

2.3 Multiple E-commerce Platforms Help Rural E-Commerce Logistics Development

The e-commerce platform not only provides a new trading model for agricultural products, but also promotes the development of rural e-commerce logistics. Rural e-commerce platforms are diverse and have different functions, which can be mainly divided into six categories: comprehensive platform e-commerce, agricultural e-commerce, agricultural products e-commerce, network brand e-commerce, fresh food e-commerce and information services. At present, the rural e-commerce platform, in addition to Alibaba, Jingdong, Pinduoduo, Suning E-shopping, the four giants, fast, jitterbugs in order to seize the market, have also joined the rural e-commerce track. At present, Ali has launched the "Thousand Counties and Ten Thousand Villages Plan", which plans to establish 1,000 county-level e-commerce public service operation centers and 100,000 village-level service stations in the future; Jingdong has established county-level service centers in 5,000 villages; Pinduoduo has established an "intelligent processing system for agricultural products" and "lightweight processing system". Pinduoduo has established a modernized logistics and distribution system that combines "intelligent processing system for agricultural products" and "light storage" to help realize the effective connection between "small farmers" and "big markets". Suning E-buy to create a "visible online shopping" set up a multi-functional O2O e-commerce store, Suning has established 1,000 e-commerce service sites, to achieve township coverage of more than 25%, from the logistics channel level to eliminate the

obstacles of agricultural e-commerce. At the same time, Suning's distribution service in the township-level market has now achieved delivery within 48 hours, and will be further optimized and upgraded to delivery within 24 hours in the future. The entry of major e-commerce platforms has accelerated the development of rural logistics.

3. Analysis of Problems in Rural E-Commerce Logistics in the Context of Rural Revitalization

3.1 Inadequate Infrastructure

Since the introduction of the rural revitalization strategy, the infrastructure of rural areas in China has been significantly improved, but the current rural logistics infrastructure is not sound enough to meet the needs of the rapid development of rural e-commerce, there is still much room for improvement. First of all, the development of rural logistics, perfect highway facilities is the foundation, but at present many rural areas in China compared to the town, the road is often narrow, poor road conditions, rain and fog weather and other problems, which increases the difficulty of logistics transportation, prolonged the transportation time, and even some remote and poor areas have not been accessed, resulting in the impossibility of access to the road. This leads to the villagers in the online shopping will spend more time costs and freight costs than urban residents, at the same time, due to poor roads, agricultural products are also very difficult to sell, resulting in stagnant sales; secondly, the lack of advanced preservation equipment and transportation equipment. For some seasonal and short fresh food period of agricultural products, if they are not preserved and sold in a timely manner, it will cause huge economic losses to the planting farmers. However, at present, most rural areas still lack cold chain transportation, storage and preservation infrastructure, resulting in many agricultural products can not be sold at a distance, and even if they can be sold, they can not be traded on a large scale, which hinders the development of rural e-commerce logistics; once again, the rural communication network is in poor condition, and the corresponding facilities are still not sound, and a bad network will indirectly increase the cost of rural logistics; in addition, the information resources in rural areas are not effectively integrated, and there is a lack of public information platforms, which will indirectly increase the cost of rural logistics. In addition, the information resources in rural areas have not been effectively integrated, the lack of public information platforms, resulting in rural e-commerce is difficult to effectively integrate information, logistics information is difficult to centralized processing, many places in the logistics information has not been updated in a timely manner, which affects the farmers' sense of experience.

3.2 Inefficiency of Goods Distribution

At present, China's rural areas are generally faced with low logistics efficiency, distribution costs and other issues, which is one of the key factors affecting the development of rural e-commerce. First of all, due to the rural population living in a more dispersed, distribution address is not fixed, most of the courier can not be centralized one-time processing, a single distribution batch is smaller, the distribution frequency becomes larger, resulting in a large amount of time in the distribution process,

thus reducing the farmers' online shopping experience, to a large extent, will hit the enthusiasm of farmers online shopping. At the same time, for seasonal, fresh food period short agricultural products, will greatly increase the cost of leaving the village, which will result in modern products can not come in, agricultural products can not go out of the situation. Secondly, the exodus of rural population leads to a serious lack of distribution staff, some rural areas have very few or even no express delivery staff, a large village express delivery and receipt can only rely on only a few staff members, which will increase the work pressure of the existing delivery staff, thus reducing the efficiency of distribution; Finally, due to cost factors, most e-commerce and logistics companies will set up service outlets in the county around the county, away from the township and village distances are very far, which will lead to the situation of modern products can not come in, agricultural products can not go out. and villages are very far away, which brings a lot of inconvenience to farmers living in remote villages, therefore, express delivery points set up by express delivery enterprises alone cannot meet the needs of the integrated development of rural passenger, cargo and postal services.

3.3 Lack of Professional Logistics Management Personnel

With the rapid development of the e-commerce logistics industry, its demand for technical, operational and service personnel continues to increase, while China's rural areas have long been in a state of population exodus, resulting in a shortage of talents engaged in the e-commerce logistics industry. On the one hand, due to a certain degree of difference between urban and rural areas in terms of health care, education and infrastructure, the attractiveness of rural areas for professional logistics talents is not strong, resulting in a shortage of talents in rural logistics. At the same time, due to the relatively low level of economic development in rural areas, the lack of support for e-commerce talents has led to difficulties in introducing talents and even more difficulties in retaining talents, thus exacerbating the loss of talents. Without the support of talents, the development of rural logistics will encounter great barriers. On the other hand, most of China's rural e-commerce logistics staff are mostly from nearby residents, do not understand the knowledge of logistics business operations, industry standards, service specifications, etc., and generally have a low level of technical skills and weak management capabilities. And most of the training of these staff related knowledge is to rely on local villagers, lack of professionalism and relevance, without the formation of a professional training system, the comprehensive ability of practitioners can not be improved, it is difficult to countryside professional talent team. Agricultural e-commerce logistics from the product packaging, storage, and then to the cold chain, preservation, and finally distribution, each link requires a large number of personnel support, and from the point of view of China's current talent situation in rural logistics, there is a serious contradiction between supply and demand, which impedes the development of rural e-commerce logistics.

3.4 Low Level of Logistics Informatization

Currently, the level of informatization in rural areas is low, and the distribution of individual e-commerce is also relatively sparse. This leads to the inability to smoothly connect the various links,

affecting the operational efficiency of the entire e-commerce logistics system. First of all, the informationization level of the operation link is low. The various logistics links of agricultural products are completed manually, which is not only inefficient, but also causes great labor costs. And there is also an unbalanced situation of rural logistics informatization in China, generally speaking, the central and western regions are far less than the eastern regions. Secondly, at present, China's rural areas have not established a logistics information sharing platform, due to the large competition between the various express delivery companies, and rural residents living in a more dispersed, coupled with the company does not share information resources, it will increase logistics costs, while the supply and demand of agricultural products market situation is also difficult to understand. Once again, the village logistics information service system is not perfect, there are still lagging network information, inaccurate information and other issues, there is a large room for improvement. Finally, considering the market competition, in order to protect their own interests, e-commerce logistics enterprises often choose to keep the logistics and distribution information confidential and establish their own database, which hinders the sharing of information and invariably increases the operating costs of enterprises.

4. Countermeasures for the Development of Rural E-commerce Logistics under the Strategy of Rural Revitalization

4.1 Strengthening Rural Logistics Infrastructure

Perfect infrastructure is the basis for promoting the development of rural e-commerce logistics. At present, the infrastructure conditions in rural areas of China are seriously lagging behind, which has become a major obstacle to the development of rural e-commerce logistics. To solve this major problem, the government should play its macro-control function and take effective measures to strengthen rural e-commerce logistics infrastructure. First of all, the government should give more financial and policy support to the construction of rural logistics infrastructure. It should strengthen the investment in the construction of highways, maintain and renovate the existing old roads, and accelerate the construction of highways for remote villages without access roads to improve the rural highway situation and provide good conditions for the development of rural logistics. Secondly, the government should improve the basic conditions of logistics parks. It should put cold chain technology into the storage warehouse of agricultural products and the transportation process, including the transit warehouse, to effectively extend the freshness period of agricultural products, solve the problems of transportation and storage of agricultural products, and ensure that fresh agricultural products remain fresh and high quality when they are put into the market, so as to obtain a larger market share, further promote the development of rural e-commerce logistics, and promote the development of rural industry; once again, Internet facilities should be strengthened to improve the network environment in rural areas. This can be done in the following ways: first, in view of the difficulty of accessing optical fibers in rural areas, help can be sought from the Government, so as to achieve full coverage of the network. The second is to reduce the cost of installation and formulate reasonable packages for farmers; the third is

to strengthen the supervision of the market order and improve the network market environment. Finally, the rural logistics system should be improved. As most rural areas have only one logistics point, and the location of the logistics point is still in the town, resulting in farmers receiving and sending express delivery is extremely inconvenient. Therefore, the logistics company should be based on the region's express business volume and population distribution, according to local conditions to set up additional e-commerce service sites, can effectively reduce the operating and distribution costs of logistics enterprises, while expanding the coverage of logistics services, fill the short board of logistics services in rural areas, and promote the development of rural e-commerce logistics.

4.2 Improving Rural Informatization

In order to solve the problem of asymmetry of logistics information between rural areas and cities, and to realize the effective docking of logistics information between urban and rural areas, it is necessary for all relevant departments to actively collaborate and cooperate to improve the level of informatization in rural areas, and to jointly enhance the docking capacity of rural logistics. First of all, the government should do a good job of top-level planning and design, and implement special funding. To increase the signal base station according to the actual situation of each place, to ensure the smoothness of the rural mobile network, the use of modern cloud computing, big data and other technologies, to strengthen the management of logistics information, to provide more relevant information for farmers, to achieve the buyer and seller resource sharing. Second, actively promote the construction of a comprehensive service platform for rural e-commerce logistics information, fully integrate information resources, and aim to provide efficient network information support for e-commerce enterprises and rural consumers. Specifically: first, the government should play a leading role in comprehensively planning and establishing an e-commerce logistics information service platform to realize the effective collection, collation, release and sharing of logistics information, and to effectively solve the problem of underground distribution efficiency due to asymmetric logistics information. Secondly, the government should provide financial support and policy support to e-commerce logistics enterprises with scale, encourage enterprises to cooperate with each other, strengthen technological research and development, introduce advanced information management equipment and technology, and build an efficient logistics information service platform in order to improve the quality of logistics information services.

4.3 Strengthen Rural E-Commerce Logistics Personnel Training

Lack of talent is a major problem in the development of rural e-commerce logistics, in order to make the development of rural logistics not constrained by talent, it is necessary to accelerate the pace of talent team building, and deliver more talents for rural revitalization. Talents in rural e-commerce logistics can be obtained through both internal training and external introduction. In the training of talents, the government should improve the education and training system, the relevant departments can also hire university professors or professionals to train farmers in e-commerce, Internet and other related knowledge and technology to improve their knowledge and technical level, for those who are

excellent in performance can be provided with jobs, which not only solves the problem of the rural surplus labor force to finish the job, but also makes up for the shortage of talents in rural logistics. . Provide talent support for rural development. In terms of the introduction of talents, firstly, we should improve the employment environment. In terms of life, we should subsidize the housing and meal expenses of talents, so as to improve their quality of life, and in the work, we should provide them with more platforms, so that they can fully display their talents, and so that they can get more satisfaction from their work; secondly, the government should set up a variety of subsidy policies to improve the salary of talents, and to motivate young people to go down to the countryside and enter into the village to work, Entrepreneurship, for the development of rural areas to convey fresh blood, for the development of rural e-commerce logistics to provide talent support; In addition, institutions of higher learning should set up more e-commerce and logistics-related professions, to expand the scale of training of related personnel, at the same time, students should not only learn theoretical knowledge, but also combine the theoretical knowledge learned with practice, the school needs to organize internships during the students' holidays, to provide students with more The school needs to organize internships during students' vacations to provide students with more opportunities to practice. Through all-round cultivation, we can deliver all-round talents for rural e-commerce logistics and provide talent guarantee for the development of rural logistics.

4.4 Logistics Enterprises Implement the Common Distribution Model

Co-distribution mode refers to a new type of distribution mode in which multiple logistics enterprises cooperate with each other to achieve win-win cooperation. In this mode, the division of labor and cooperation between the enterprises, the original independent distribution process is integrated into an efficient whole, thus improving the level and quality of logistics services. Through co-distribution, each logistics enterprise can combine their respective resources, technology and network advantages to form a more complete logistics network, which not only reduces the high cost brought about by duplicated construction, but also improves the coverage of logistics services. Due to the dispersed nature of the rural market and the vastness of the territory, resulting in distribution difficulties and high costs. The common distribution model for rural logistics has brought a new solution, the logistics enterprises through cooperation, the original complex distribution network simplified into a regional joint distribution system. Each enterprise is responsible for a specific distribution link or area, through centralized processing and classification of loading, fast and accurate delivery of express delivery. This model not only reduces the work pressure of distribution personnel and improves their efficiency, but also improves the shopping experience and satisfaction of villagers, helping to promote the development of the rural economy and the quality of life of farmers.

5. Conclusion

In a word, the e-commerce logistics industry has played an important role in promoting the revitalization of the rural economy. Although the current development of rural e-commerce logistics is

facing many challenges, the gradual solution of these problems can promote the rural e-commerce logistics industry into a new stage of development in the long-term practical exploration. In the context of rural revitalization, the development of rural e-commerce logistics requires the joint participation of the government, enterprises and society to integrate and optimize the e-commerce logistics resources in rural areas and establish a perfect rural e-commerce logistics system. This will not only accelerate the upgrading and transformation of rural industries, but also promote the coordinated development of urban and rural areas and help realize the comprehensive revitalization of the countryside.

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