

Study on the Optimization Strategy of Rural Logistics Distribution in Sichuan Province

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Abstract: With the continuous development of society and economy, rural logistics has gradually come into people's view. Based on the relevant concepts and the characteristics of rural logistics distribution in Sichuan Province, this paper researches the existing logistics distribution problems, such as backward construction of rural logistics infrastructure, imperfect distribution network system, insufficient logistics professionals and lack of unified planning and management of logistics industry, and proposes measures to improve the construction of rural logistics infrastructure, improve the basic distribution network system, cultivate and introduce professional talents, and strengthen the formulation of relevant policies and regulations, in order to improve the efficiency of rural logistics distribution and promote the development of rural logistics.

Keywords: Rural logistics, Rural logistics distribution, Distribution network system.

1. Introduction

In recent years, with the continuous development of express and logistics industry, rural logistics has been gradually attached to people. Sichuan Province is a large population and agricultural province, as the largest "vegetable basket" base in western China and an important grain production base, it is important to explore the development status of rural logistics distribution in Sichuan Province, study some existing problems and propose corresponding solutions to promote the development of rural logistics in Sichuan Province, optimize the existing agricultural industry structure and promote the rapid development of rural economy. However, there are still many problems in the existing rural logistics distribution system, and it is especially important to control and solve these problems. Therefore, on the basis of exploring the existing problems of rural logistics distribution in Sichuan Province, this paper puts forward the corresponding distribution optimization strategies according to local conditions.

2. Analysis of the Concept and Characteristics of Rural Logistics Distribution

2.1. Rural logistics distribution concept and characteristics

Rural logistics is the general term for all activities such as storage, distribution, transportation, packaging, distribution processing and information processing for the residents' life, production and other related activities in rural areas [1]. Rural logistics distribution, on the other hand, refers to the logistics activities [2] [3] of delivering the relevant products to the designated place on time after selecting, processing and packaging the products needed for the residents' life and production, such as agricultural products, agricultural production goods and daily necessities, within the area of a certain reasonable rural area according to their actual needs.

2.2. Characteristics of rural logistics distribution

2.2.1. Wide distribution range

Due to the natural geographical environment and agricultural factors, most of the rural areas in Sichuan province are remote and the population lives more scattered, especially in areas such as Ganzi and Aba. From the data released by the Sichuan provincial government, the total area of rural areas in Sichuan is over 100 million mu, with 21 cities (states), 183 counties (cities and districts), 4458 towns and 34,556 administrative villages, showing the characteristics of a vast territory but a small population density, while the distribution of rural logistics also shows the characteristics of a wide range and decentralization. This is why rural logistics distribution has high costs in terms of service scope and scale, making it difficult to form a scale effect.

2.2.2. High technical standards

As the primary industry in Sichuan, agriculture has a large demand for the distribution of agricultural products, such as apples, mangoes, rice, wheat, corn, etc., to the rural areas of Sichuan Province. For the distribution of fresh agricultural products, while using professional facilities and equipment, it is also necessary to meet the corresponding technical requirements, such as the use of special constant temperature packaging, refrigerated transport vehicles, etc. During the distribution, it is also necessary to regularly measure and control the temperature of the products to prevent spoilage and deterioration, thus affecting the quality of agricultural products.

2.2.3. Strong seasonality

Sichuan Province mainly belongs to the subtropical monsoon climate and highland mountain climate, with four distinct seasons and small daily but large annual differences in temperature, which is why the agriculture in Sichuan has formed a farming system with three seasons a year: summer crop, autumn crop and late autumn crop. As a result, rural logistics distribution also shows seasonal characteristics.

3. Current Situation and Problems of Rural Logistics Distribution in Sichuan Province

3.1. Backward logistics infrastructure construction

According to the statistics released by the Sichuan Provincial Postal Administration in 2022, the province's express business volume in rural areas has increased by more than 30% in the past three years, and basically achieved 100% coverage of "express to the countryside into the village" by the end of 2022. Although the rural economy has achieved some development, but the construction of the relevant logistics and distribution system still exists in many imperfections, such as many rural outlets transport vehicles inconvenience, long delivery distance, delivery is not timely, etc., reflect the problem of backward logistics infrastructure in rural areas. First of all, due to the lack of corresponding construction of warehousing facilities and equipment in many rural areas of Sichuan Province, the relevant goods are not effectively organized and integrated, resulting in high distribution costs; secondly, due to the relatively scattered rural residents, the road network density is low, the vehicle transportation and distribution of the high rate of empty returns, distribution efficiency is low; furthermore, many rural areas in Sichuan have complex terrain, more mountainous roads, highways are difficult to completely cover. Finally, many professional machinery and equipment is not intelligent enough, most of them need to use manpower, which restricts the output of agricultural products and also restricts the input of industrial products. Improve the construction of rural logistics infrastructure, optimize the logistics distribution mode, is the development of rural logistics in Sichuan Province, to solve the high cost of distribution and low efficiency of the key link.

3.2. Distribution network system is not perfect

The rural logistics network system mainly includes logistics routes in rural areas and nodes in the process of goods transportation and distribution [4]. The rural logistics distribution system is an important channel for the output of agricultural products and the input of industrial output, as well as an important part of meeting the daily production of rural residents and promoting rural revitalization. Although rural logistics has been developing continuously in recent years, its distribution system is also being improved. However, compared with urban areas, the distribution system in many rural areas of Sichuan Province still has many shortcomings, such as uneven regional development, unified planning and low management level, which greatly hinder the distribution efficiency of rural logistics. In particular, due to the long rural distribution lines, single delivery volume is small, in addition to the postal service, the current Shunfeng, three through one, Jingdong self-owned logistics and other leading enterprises logistics outlets are mostly set up only in the town, rural residents still need to go to the town to pick up, and most sites only store the most basic express goods, while many bulk goods simply do not set up sites, nor is there a special logistics center and distribution center, network. The node layout is relatively scarce.

3.3. Insufficient logistics professionals

Although Sichuan Province has universities highly related

to agriculture and logistics, such as Sichuan Agricultural University and Southwest Jiaotong University, and many universities, such as Sichuan University and Southwest University of Finance and Economics, have opened logistics management, logistics engineering and management and other related majors, which have trained and delivered a large number of logistics management talents for the society. However, because most rural areas in Sichuan are relatively backward in development, living conditions, medical level, etc. are very different compared with urban areas, so the rural logistics industry is less attractive to relevant talents, and some enterprise leaders regard their employees as cheap labor, and do not have a complete human resource evaluation system, even if employees have the appropriate knowledge and skills, they may not be valued, resulting in a large number of personnel. The loss of a large number of personnel. At the same time, there is a great lack of comprehensive agricultural logistics personnel who are good at modern logistics knowledge, understand advanced logistics information technology, and also understand agricultural economic management. Due to the lack of talents, to a certain extent, the development of rural logistics distribution in Sichuan Province is restricted.

3.4. Logistics industry lacks unified planning and management

The planning and management of rural logistics in Sichuan Province is a prominent issue affecting the efficiency of logistics distribution. The distribution of rural logistics involves agricultural, commercial, supply and marketing and food systems and other enterprises, while the warehouses, yards, transport vehicles, loading and unloading facilities and equipment of these systems operate independently, each into a system, failing to carry out unified planning and management, to a large extent, resulting in a great waste of relevant logistics facilities and equipment. And most logistics enterprises only set up logistics outlets in towns or urban-rural combination points, and did not carry out reasonable layout planning according to the needs of residents, which seriously affects the efficiency of two-way circulation of rural and urban logistics. At the same time, the existing logistics distribution mode is not planned and implemented according to the actual situation in rural areas, such as the existing three rural e-commerce logistics mode: third-party distribution mode, e-commerce self-operated distribution mode and common distribution mode, respectively, for the logistics infrastructure is more complete and relatively concentrated areas, large home appliances or e-commerce enterprises, logistics facilities are relatively backward rural areas, although the third is more suitable for the existing rural areas in Sichuan Province, but due to the existence of competitive relationship between the parties of common distribution, lack of corresponding planning and management, low stability of cooperation, low distribution efficiency and difficult cost control.

4. Strategies and Suggestions for Optimizing Rural Logistics Distribution in Sichuan Province

4.1. Improve the construction of logistics infrastructure

To optimize the level of rural logistics distribution in

Sichuan Province, the primary link is to improve the construction of logistics infrastructure according to the specific conditions of the local environment. In terms of transportation, cities and towns should reasonably plan and build railroad and highway transportation routes, strengthen the implementation of road safety and quality standards, regularly maintain the relevant roads, and at the same time, appropriately widen the main transportation roads, set up gas stations, charging piles, traffic signals, etc., to ensure the smooth passage of relevant transportation and distribution vehicles, and fundamentally improve the transportation conditions in rural areas. Network node construction, should further rational planning and construction of warehousing and distribution and other related logistics activities of the network, the reasonable setting of logistics transfer stations, the construction of specialized warehouses or sorting centers, distribution centers, and for many less populated, unevenly distributed places, can consider the installation of intelligent courier cabinets to reduce distribution costs. As for the construction of information level, intelligent logistics planning is carried out through intelligent networked management to promote resource sharing among logistics outlets at all levels, so that the distribution of goods can be intensified and standardized [5].

4.2. Sound basic distribution network system

Focus on supporting the courier industry, agriculture, transportation and trade circulation in Sichuan Province and other areas of resource integration, the comprehensive construction of the county (city, district) - township (town) - village logistics nodes to support the integrated logistics infrastructure network in rural areas, to promote rural e-commerce, courier enterprises, logistics enterprises, trade enterprises and distribution outlets to effectively link, Courier enterprises, logistics enterprises, trade enterprises and other effective connection with the distribution network, to maximize the "two-way circulation" function of rural and urban. On the one hand, we should accelerate the implementation of the "one station in a township, a village," the network layout, strongly support the construction of townships, towns, villages, express service centers and outlets, through community activity centers, village committees, party group service centers, village post stations and supermarkets and convenience stores, such as the superposition of service functions, the construction of a reasonable layout of village-level Distribution points, and promote the effective integration of existing outlets and network resources in rural areas. On the other hand, we can carry out "class line distribution mode", rely on rural passenger vehicles to carry out "transportation and delivery" of goods, realize new low-cost and high-efficiency distribution methods such as circular distribution and pick-up and delivery along the way, improve the distribution network, and build a rural distribution network with efficient service, intensive function, resource integration and data interconnection. The system of rural distribution network with efficient service, intensive function, resource integration and data interconnection.

4.3. Cultivate and introduce professional talents

The economic development of rural areas is inseparable from the development of logistics, and even more inseparable from relevant professionals. Therefore, to achieve the rapid

development of rural logistics and distribution in Sichuan Province, the cultivation and introduction of professional talents is an extremely important step. First of all, rural areas can establish certain cooperation with major universities and logistics enterprises, such as through orientation training, order-based education, etc., focusing on training professional composite talents in line with the current situation of rural logistics, the introduction of advanced logistics concepts and technologies of relevant logistics enterprises, learning advanced management methods to stimulate the potential of rural logistics and distribution, etc. Secondly, to support the talents from the policy, for example, for the personnel who enter the rural logistics through the project of "talent introduction", they will be given the measures of settlement subsidy, preferential housing and generous treatment, and create the professional environment with good working conditions and promotion system to absorb the professional personnel with logistics knowledge and skills. Finally, strengthen the training of local logistics and distribution practitioners, targeted, hierarchical and categorical training for different positions, such as on-site visits and learning, centralized training and practice, mutual exchange and communication, etc., to gradually improve the logistics and distribution management system, enhance the level of practitioners and improve operational efficiency. Thus, new knowledge, new technology and new blood can be brought to rural logistics.

4.4. Strengthen the development of relevant policies and regulations

The government should attach great importance to the development of rural logistics and regard the promotion of modern logistics development in rural areas as an important prerequisite for safeguarding and improving the lives of residents. First of all, the government should increase the investment and construction of rural logistics infrastructure in Sichuan Province and the financial and policy support, reasonable planning of distribution routes, standardize distribution behavior, and reduce distribution costs. Secondly, the government can attract more logistics-related enterprises to enter the rural logistics and strengthen the construction of efficient distribution system by introducing preferential policies for road transportation and distribution. Finally, it should strengthen the supervision and governance of the responsible subjects related to rural logistics distribution, develop an integrity supervision system, clarify safe distribution regulations, establish and improve distribution-related laws and regulations according to local conditions, and protect the legitimate rights and interests of relevant personnel [6].

5. Concluding Remarks

As an important part of the overall economic development of Sichuan Province, the development of rural logistics, to promote the rapid development of the rural economy, is an important grip to promote the economic development of Sichuan Province. Only by improving the construction of logistics infrastructure, establishing a sound rural distribution system, optimizing the distribution path, and attracting and retaining talents can we maximize the overall efficiency of rural logistics, reduce distribution costs, and promote the rapid development of the rural economy. Rapid development of rural economy.

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