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Study on the construction of rural E-commerce and Logistics Distribution Service System

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Abstract: *In order to build the rural e-commerce and logistics distribution operation service system, this paper will carry out relevant research, mainly discuss the basic requirements of the system construction, and then put forward the construction scheme. The results show that the application of this system is limited, and it can give full play to the advantages of e-commerce. Combining with the two-way nature of logistics distribution, it can realize the purpose of increasing rural income on the one hand, and solve the online shopping needs of rural people on the other hand.*

Keywords: *The countryside; E-commerce; Logistics distribution*

1. Introduction

In the era of network, a good collaborative development relationship has been formed between e-commerce and the logistics and distribution industry, which has ushered in a new opportunity for the development of the two industries. In particular, the popularity of e-commerce is extremely fast, and it has a very large user group in a short time. However, in this context, it is found that there are defects in the e-commerce and logistics distribution operation service system in rural areas, which makes it difficult for rural resources to be sent out, which is not conducive to rural income increase and industrial development, and also makes it difficult for rural users to meet their online shopping needs. Therefore, the system needs to be improved. It is necessary to ensure that the system meets the requirements of rural resources export transportation and domestic transportation, so it is necessary to carry out relevant research on the construction of rural e-commerce and logistics distribution operation service system.

2. Basic requirements for rural e-commerce and logistics distribution operation service system construction

2.1. Undertake the export demand of rural resources

Exist for a long time in our country rural areas, the problem of large cities the gap between rich and poor, not only reflected in the economic level, the problem also embodied in economic hemopoietic ability, namely the rural economic level is lower than the urban areas, and the former's own economic hemopoietic ability also at a lower level, at the same time, it is difficult to improve the ability, this is the main cause of the gap between rich and poor big problem long-standing. In reaction to the phenomenon countries put forward the important strategic principle of "revitalization of the rural", aimed at improving rural economy hemopoietic ability, fundamentally solve the problem, and the electronic commerce is the key means to realize the purpose, namely rural users can set up agricultural enterprises, specializing in agricultural cultivation, processing, production and other work, then the electronic commerce as a sales channel, to generate network orders, Then through the logistics distribution of external transport, the final completion of the transaction. It can be seen from this that the rural e-commerce and logistics distribution operation service system must undertake the export demand of rural resources, otherwise it cannot improve the economic hematopoietic capacity of rural areas, which is the most basic requirement in system construction [1].

2.2. Meet rural domestic demand for transportation

Rural workers not only need through the countryside electronic commerce and logistics operation service system of export agricultural products, also need to get their needs by the system of goods, this is the domestic demand in the countryside, the assumption a rural users on the network to buy some

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goods, shipper must be through the logistics side will transport the goods to rural users, do this can meet the domestic demand. However, the environment in rural areas is complicated, and it is difficult to achieve this according to the logistics transportation mode in cities. For example, some rural users live in remote areas, and logistics transportation personnel may not be able to find the specific location in the transportation process. In this case, logistics will be forced to terminate, which will damage the quality of logistics service. Therefore, meeting rural domestic demand for transportation is also one of the basic requirements in system construction [2].

3. E-commerce and logistics distribution operation service system construction scheme

3.1. General Idea

In the whole process of e-commerce and logistics operation service system is equivalent to "transfer station", dock with the shipper, the receiving party at the same time, and in combination with export demand, domestic transportation demand, rural users can be a shipper already, also can be the receiving party, so the system with rural users and other shipper, the receiving party to maintain two-way docking relations, as shown in figure 1.

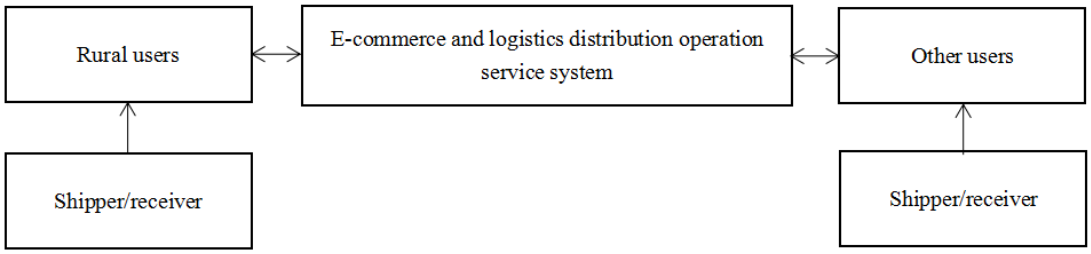

Figure 1 Overall framework of e-commerce and logistics distribution operation service system

3.2. Construction Scheme

Combined with the two-way relationship between e-commerce and logistics distribution operation service system and rural users and other users, the construction scheme of the system is mainly divided into three parts: export transportation subsystem, domestic demand transportation subsystem and overall management subsystem. The specific methods of each part are as follows.

First, the export transportation subsystem. The system is mainly used to support the export of agricultural products and can undertake the export demand of rural resources. The design process is as follows: (1) set up the regional agricultural product network marketing organizations and network platform, the organization of agricultural enterprises and rural users to form cooperation and also cooperate with the self-employed, can buy on a regular basis in accordance with the market price in all agricultural products in the quarter, complete the "stock", it also makes it easier to each user to benefit, or different rural users on the network can be directly help sales of agricultural products, According to the selling price, sales volume is regularly divided with each user, for example, the individual net profit of an agricultural product is 5 yuan, then according to the sharing ratio (assuming 5:5), the organization and rural users each get 2.5 yuan, both ways can be used, how to choose depends on the rural users' personal will; (2) The organization can obtain orders from other regions through online sales, so the organization needs to be responsible for packaging goods according to the requirements of the order, so as to connect with the logistics sector. That is, assuming that the order of a certain region requires to buy ten kilograms of radish, the organization can inform the logistics personnel to pick up the goods after bearing the load, and then enter the delivery stage; (3) considering the last period is shorter, agricultural products logistics enterprises must build agricultural products logistics transport lines, which requires the use of special equipment for transport, such as refrigerated truck, to distinguish path length at the same time, if the distance is short, then select the shortest route to transport, if the distance is long, you need to use logistics hub node for transportation, As far as possible to avoid produce in the transport process of stale problems. Through the above steps, the agricultural products of agricultural areas can be sold abroad, and ensure the quality of service, so effectively undertake the export demand of rural resources, can improve the economic hematopoietic capacity of rural areas. Table 1 shows the comparative data of economic benefits before and after the establishment of the export transportation subsystem in a certain region [3].

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Table 1 Comparative data of economic benefits before and after the establishment of the export transportation subsystem in a certain region

Point in time	Economic revenue data/year
Before system establishment	More than 2.05 million yuan
After the system is established	More than 5.49 million yuan

Second, domestic transport subsystem. The system is mainly used to support the process of external goods transport to rural users. To meet the domestic demand of rural users, the design process is as follows :(1) to build an e-commerce platform in rural areas, so that rural users can purchase related goods through the platform and generate online orders; (2) Establish a three-level logistics transportation system to ensure that goods are transported to rural users as far as possible. Tertiary logistics transportation system by the county, township, village of three parts, including the county level for the first stage, internal have a large set of logistics delivery site, such as rural users to buy goods, and generate an order merchants will through the local logistics transport the goods to the primary site collection of goods, the subsequent township logistics site to arrange someone to come to site picking at the county level, According to the address on the order of goods distribution, such as A village logistics personnel can only pick sent to A village of the goods, and so on, at the same time continue to according to the order address subdividing point of carriage of goods, such as A township in the part of goods need to transport goods to live in A township of the user, this kind of goods directly by township site logistics distribution, But if the location of the address is a village under the township, then the goods need to be transferred to the village logistics distribution personnel, especially to complete the distribution; (3) If conditions permit, a logistics receiving station can be established in the village, which is specially responsible for receiving the goods transported by the village-level logistics distribution personnel, so that the surrounding rural users can pick up the goods by themselves. At the same time, if the transportation is convenient, the village-level logistics distribution personnel should deliver the goods to their homes. In this way, we can meet the demand of domestic transportation and improve the quality of logistics transportation. Table 2 shows the comparative data of rural users' satisfaction before and after the establishment of domestic demand transportation subsystem in a certain region.

Table 2 Comparative data of economic benefits before and after the establishment of the export transportation subsystem in a region (100 persons)

Point in time	Rural user satisfaction (satisfaction with the speed of logistics transport)
Before system establishment	Very satisfied with 14; 21 people are satisfied; 54 people in general; Not satisfied with 11
After the system is established	Very satisfied 32; 67 people were satisfied; Generally 1 person; Dissatisfied 0 people

Third, the overall management subsystem. The above two subsystems are directly related to the service quality of e-commerce and logistics distribution operation service system. Therefore, in order to ensure the proper operation of the two subsystems and guarantee the service quality, it is necessary to design the overall management subsystem in the system construction. The main task of the system is: (1) in order to strengthen the management of equipment resources, namely overall management subsystem is mainly responsible for resources management in the whole system operation equipment, such as according to the export volume of agricultural products, whether line refrigerator car equipment quantity is enough, if not enough responsible for supplement, if enough as far as possible to avoid equipment damage. In addition, the relevant staff in the system should actively communicate with the agricultural product acquisition organization and logistics station organization at all levels in the three-level logistics transportation, so as to understand the actual situation and make management adjustment in time; (2) clear operating service specification, i.e., the same agricultural products export, for example, in addition to agricultural products quality problems may occur in the transport process, may also have quality problems appeared in the process of reproduction, such as rural users for agricultural production, job lead to low quality of agricultural products, so as a whole management subsystem related staff to put forward the operation service specification, The purchasing organizations of agricultural products are required to screen the quality of agricultural products strictly in accordance with the standards, and those who fail to meet the standards are not allowed to purchase agricultural products. At the same time, agricultural producers are also constrained to pay attention to product quality and guarantee service quality. (3) do a good job in domestic transport of human resource management, namely because domestic transportation may address looking for difficult problems, so as a whole when recruiting related human resource management subsystem, should choose as far as possible familiar with the local staff for logistics, such not only can create jobs, transfer the rural human resources, also can improve the efficiency of

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transportation, This is difficult to achieve human resources in other areas; (4) the cost budget management, that is, both export transport and domestic transportation, related activities and have some cost, but cost too much, nor too small, otherwise it will cause serious influence, so the overall management subsystem must expand budget work regularly, as a whole the resource consumption changes, human resources, equipment failures, etc., Make a budget based on this information. Table 3 shows the comparative data of rural economic growth before and after the establishment of the overall management subsystem in a certain region.

Table 3 Comparative data of economic benefits before and after the establishment of the export transportation subsystem in a certain region

Point in time	Economic growth
Before system establishment	1.8% ~ 2.1%
After the system is established	3.3% ~ 5.6%

4. Conclusion

In conclusion, to comply with the rural e-commerce and logistics operation service system construction of basic requirements, the relevant strategies aim to complete system to fully meet the demand of the rural logistics transportation inside and outside the system, and give full play to the function of e-commerce platform, to improve the ability of the rural economy hematopoietic, also meet the demand of rural users to online shopping, It has solved a variety of problems in the logistics and transportation of rural e-commerce in the past, which has been confirmed by the data. In view of this, rural areas and relevant departments should vigorously build rural e-commerce and logistics distribution operation service system, promote the development of the national strategy of "revitalizing the countryside", and achieve the goal at an early date.

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