Research on the Path of Improving the Service Quality of Rural E-commerce Logistics in Jilin Province Based on Computer

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Abstract. with the gradual saturation of the urban e-commerce market and the continuous advancement of national urbanization, it has become an inevitable trend to expand e-commerce to rural areas, and it is also an important policy and way to promote rural development and agricultural supply-side structural reform in the context of new rural areas. Compared with urban e-commerce logistics, the development of rural e-commerce logistics in some parts of China, especially in the central and western regions, generally lags behind, mainly manifested in the lack of supply caused by the insufficient profitability of logistics enterprises. For rural e-commerce logistics, how to scientifically and rationally plan its distribution path to meet the reasonable demands of the government, enterprises and users is the main problem that needs to be faced at the present stage. We have carried on the detailed investigation and the analysis to the above question, and proposed the related improvement strategy.

Keywords: Rural E-commerce Logistics, Supply-side Reform, Government Subsidy Strategy

1. Introduction
In the past 20 years, with the acceleration of rural highway construction, the development of rural passenger bus has attracted the attention of governments at all levels, and the coordinated development of urban and rural passenger transport has achieved initial results\(^[1]\). However, the rural logistics, an important condition for rural economic development, is still the main shortcoming of rural economic development. With the project of express delivery to the countryside being written into the No. 1 document of the Central Government in 2016, the urgency and importance of the development of rural e-commerce logistics has gradually attracted the attention of all sectors of society. The strategy of rural revitalization should be implemented and systems, mechanisms and policies for integrated urban-rural development should be established and improved. As a key link in China's current rural modernization development, rural e-commerce logistics plays an important role in urban and rural industrial agglomeration and other aspects, its service level is directly related to
whether rural residents can enjoy the convenience[2].

2. Meaning of Rural e-commerce in Jilin province
Rural logistics refers to the physical flow process in which goods are shipped or received from rural areas, which is a concept relative to urban logistics. The role of rural logistics is to provide services for farmers' production, life and other economic activities, including the transport, processing and other activities of agricultural products. Compared with urban logistics, rural logistics has the following characteristics: there are many categories (diversity) and so on. According to different transportation objects, rural logistics includes:

| Table 1. The classification of rural logistics. |
|-----------------------------------------------|
| Agricultural products                        | From the production of agricultural products to sales and consumption of the whole process of a series of activities |
| Agricultural means of production             | The whole process of purchasing, consuming and recovering the means of production of rural residents |
| Articles for daily use                       | The whole process of purchasing, distributing and consuming the necessities of life and consumer goods of production activities of residents in rural areas |
| Renewable resources                          | Farmers from agricultural production to daily life about recycling to reprocessing and a series of activities. |

Its goal is to establish a reasonable logistics distribution system and smooth logistics channels to achieve "agricultural products into the city" and "healthThe seamless connection of "live products to the countryside" can meet the needs of rural residents in production and life logistics; It can also help city dwellers buy farms. The cost of products is reduced to realize the coordinated development of rural and urban areas[3].

3. Development status and problems of rural logistics in Jilin Province
As China is a big agricultural country, agriculture has a very important impact on China's economic development. According to data from Statistics, the sales volume of rural e-commerce market shows a trend of continuous growth in recent years. The market scale reached 353 billion yuan in 2015, and increased to 482.3 billion yuan in 2016, with a growth ratio of as high as 36.607. Although the current economic situation in China's rural areas has changed, the expansion of the scale still cannot cover up the low penetration rate of rural logistics and other problems. Due to the impact of market economy, traffic conditions, logistics development level and policy support, the problems are as follows:

![Figure 1. Problems in rural logistics.](image)

3.1. High transportation cost and poor transportation technology
The development level of rural logistics is greatly influenced by the development level of rural economy. Logistics infrastructure and computer technology level does not meet the requirements, the cost of logistics will increase, logistics industry can not meet the needs of rural economic
development\textsuperscript{[4]}. As a whole, rural areas in Jilin province are mainly decentralized production and management, with small scale, low level and professional level low. All kinds of infrastructure and technology in rural logistics and transportation are far behind and cannot meet the requirements of modernization.

3.2. Low level of transportation information and standardization
Moreover, the low level of standardization of rural logistics in China does not meet the requirements of standardization, which is one of the factors restricting the development of rural logistics in China. At the same time, in China's rural informatization network coverage rate is low, the informatization construction in the counties and townships areas appear fault, information collection and release of work can't effectively, there is no public information service platform, logistics information it will be difficult to transfer and play a role, farmers and consumers can accurately know the market trend, the farmers for agricultural production information and price information is incomplete, resulted in the production of agricultural products and transport in the blind state, especially in the process of vehicle return, the existence of light phenomenon is relatively serious, this caused the situation of logistics cost is high, To a certain extent, this hinders the healthy and orderly development of rural logistics industry\textsuperscript{[5]}.

3.3. Lack of strong policy support and perfect credit system mechanism
At present, some places are even in blank state, there is no relevant policy Support, which leads to the rural logistics unable to standardize operations. Among them, policy and credit are very important. If there is a lack of trust in logistics enterprises, it is difficult to sign logistics transaction contracts. The government's measures are relatively vague, coupled with the imperfect market system and mechanism, the existence of unfair competition in the society, so that the interests of formal logistics enterprises can not be protected, thus restricting the development of the logistics industry\textsuperscript{[6]}.

4. Jilin province rural logistics future development trend
The comprehensive analysis shows that the future trend of rural logistics is as follows:

4.1. Rural logistics network node system is improving day by day
In order to improve the three-level rural distribution network, rural logistics will focus on the construction of county logistics distribution center, township distribution nodes, as the support of the logistics and transport network. County logistics distribution center for resource integration, warehousing distribution and other functions. The network facilities system will promote the efficient and orderly flow of agricultural products, agricultural materials and rural consumer goods.

4.2. E-commerce provides new impetus for logistics
E-commerce is the process of integrating logistics, business flow, capital flow and information flow. Different from the general rural logistics, the rural e-commerce market has huge potential. E-commerce giants such as Alibaba and JD are increasing the construction of rural logistics network covering counties and townships. it also provides new impetus for the development of rural logistics.

4.3. Professional logistics facilities and equipment to improve the level of service
In recent years, the state has issued policies, from top to bottom, successively carried out logistics standardization pilot projects and supply chain innovation and application, accelerated the construction of standardized pallets and standardized turnover boxes (baskets) recycling and sharing system, and promoted the circulation of agricultural products from the end of the field to the supermarket shelves. The use of specialized logistics facilities and equipment will greatly improve the efficiency of logistics operations and professional service level.

5. Conclusion
With the rapid development of computer technology, the organic combination of virtual activities and physical forms, logistics assistance e-commerce becomes more convenient, e-commerce also improves the pattern of logistics development, modern logistics and e-commerce must coordinate the development, interdependent, common development, can reflect the overall advantage. In a word, we must give full play to the government-led development model of rural e-commerce. Relevant departments, especially township governments, should work together to formulate long-term development plans and make continuous, rapid and effective progress.

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References
[1] He Minke. Logistics System Theory "M]. Beijing: Higher Education Press, 2004: 28-32.
[2] Zhang Wei, Zhang Shumiao. Construction of Rural E-commerce Platform in the Context of new Countryside [J]. Science and Technology, Gansu Agricultural University Institute of Development Studies, 2016, 27 (2): 15-18.
[3] Kong Hui. Research on the Construction of Rural Logistics System in the New Rural Construction [D]. Jinan: Shan Dong Normal University, 2015.
[4] Hu Yu. Research on Modern Rural Logistics Finance [M]. Beijing; Economic Science Press, 2009: 158-160.
[5] Mumford L. The Highway and The City [M] New American Library, 2010: 179.
[6] Kuang Jianling. Comparative Study on Development Strategies of Rural Logistics between China and Foreign countries [T]. Special Economic Zone Economy, 2011, 12 (1): 22-26.