

## Study on the Linkage Development of Logistics Industry and Manufacturing Industry in Jilin Province

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**Keywords:** Jilin Province, Logistics Industry, Manufacturing Industry, The Current Development Situation, The Linkage Development

**Abstract:** The modern logistics industry has a significant driving effect on the development of related industries and economic growth because it has a strong correlation with most industries and departments. The manufacturing industry is the pillar of the national economy, and the linkage between the two has become one of the important measures to promote regional economic growth and industrial structure optimization and upgrading. The Grey Relational Analysis shows that the relationship between the logistics industry and the manufacturing industry in Jilin Province is not high. Therefore, it is necessary to promote the linkage development of manufacturing industry and logistics industry by improving planning, consummating mechanism and building information platform. Based on the author's learning and practical experience, the paper firstly analyzes the meaning of the linkage development of logistics industry and manufacturing industry, and then discusses the current situation of the development of logistics industry and manufacturing industry in Jilin Province. Finally, the paper puts forward countermeasures for the linkage development of logistics industry and manufacturing industry in Jilin Province.

### 1. Introduction

On September 25, 2007, the National Development and Reform Commission organized the first National Conference on the Linkage Development of Manufacturing and Logistics Industry in Shanghai, launched the linkage development of manufacturing industry and logistics industry, and received a general response from experts in the industry, governments at all levels, and manufacturing and logistics industry. On March 10, 2009, the State Council issued the *Plan for Adjustment and Revitalization of Logistics Industry*, and listed "the linkage development of manufacturing and logistics industry" as one of the nine key projects explicitly. The establishment of linkage development project between manufacturing industry and logistics industry has become another important milestone in the development of manufacturing industry and logistics industry in China, and the time for the implementation of linkage between manufacturing industry and logistics industry has been ripe[1]. Jilin Province has issued related policies to guide the development of logistics industry, such as the *Twelfth Five-Year Plan of Logistics Industry in Jilin Province*, the *Suggestions on Policies and Measures to Promote the Healthy Development of Logistics Industry in Jilin Province* and the *Opinions of Jilin Provincial People's Government on Deepening the Reform of Circulation System and Speeding up the Development of Circulation Industry*. These documents have further improved the policy environment for the development of logistics industry and played an important guiding and promoting role in standardizing, encouraging and supporting the development of logistics industry[2].

### 2. The Implication of the Linkage Development between Logistics Industry and Manufacturing Industry

The linkage between manufacturing industry and logistics industry means that within a certain region, the manufacturing industry releases the logistics demand to the logistics industry, and the logistics industry embeds the manufacturing industry to meet the logistics demand released by the manufacturing industry with high quality and efficiency. They "bite" each other as if they were

gears, so as to promote the development of the two industries in a coordinated manner. The linkage between manufacturing and logistics industry is essentially the embodiment of social division of labor and specialization, that is, the manufacturing industry and the logistics industry respectively focus on the cultivation and development of their core competitiveness. Manufacturing industry focuses on core activities such as process reengineering, product restructuring and technological innovation in manufacturing link, and releases the logistics link of non-core competitiveness to the operation of professional logistics enterprises to ensure the operational efficiency of enterprises; The logistics industry focuses on giving full play to the service function of the main body, undertaking the increasing demand for logistics service and quality in the manufacturing industry, connecting better with the various links of the manufacturing industry chain, and providing the manufacturing industry with a high-quality and efficient integrated service of the supply chain, then finally realizes the win-win of "two industries" linkage in the end.

### **3. Current Situation of Linkage Development of Logistics and Manufacturing Industry in Jilin Province**

Some achievements have been made in the linkage between manufacturing and logistics in Jilin Province. Some manufacturing enterprises began to attach great importance from a strategic perspective to the integration of logistics functions, and they implement process reengineering, separate outsourcing logistics business, and strengthen deep cooperation with logistics enterprises. Some logistics enterprises also started positively to embed the whole process of logistics business in manufacturing enterprises, and formed a new situation of "two industries" linkage development[3]. However, due to the existence of manufacturing enterprises and logistics enterprises, the linkage development of "two industries" in Jilin Province is not smooth.

On the one hand, under the influence of the traditional enterprise management thought, a considerable number of manufacturing enterprises, especially the traditional manufacturing enterprises, still follow the "large and complete", "small and complete" mode of operation, therefore, the proportion of logistics self-support is large, and the degree of socialization is on the low side. The degree and level of the linkage development between manufacturing and logistics industry depend on the release of logistics demand in manufacturing industry, which is becoming an important factor that restricts the development of linkage between manufacturing industry and logistics industry. On the other hand, logistics enterprises are generally characterized by "small, scattered, poor, and weak", and the weak integration ability is also one of the main reasons why the linkage between the manufacturing industry and the logistics industry is not developing smoothly at present. In recent years, although logistics enterprises in Jilin Province have made rapid development and the scale of industry is expanding, the professional service ability to meet the needs of manufacturing enterprises is not strong. In traditional service fields such as transportation and warehousing, products and services tend to be homogenized, and extensive operation and low level competition become more and more serious; But the value-added service, the integration service, especially in the logistics scheme design and the supply chain entire service and so on aspect that the manufacturing enterprise urgently needs are insufficiency[4].

### **4. Countermeasures for the Linkage Development of Logistics and Manufacturing Industry in Jilin Province**

#### **4.1 Overall planning: promoting the coordinated development of the "two industries linkage" in Jilin Province**

In recent years, the manufacturing industry in Jilin Province has developed rapidly, which plays a very important role in driving the rapid economic development of Jilin Province. Jilin Province also attaches great importance to the development of logistics industry, and regards logistics industry as one of the priority producer services in *The Twelfth Five-Year Plan* of Jilin Province, therefore, developing modern logistics industry vigorously has become one of the industrial

economic goals of Jilin Province. In terms of development planning, Jilin Province proposed to build up specialized logistics, such as automobile, petrochemical, agricultural products and so on, relying on pillar and characteristic industries; In the logistics industry layout, Jilin Province proposed to create "one circle, two regions and six belts" logistics industry development regional layout. Although both the manufacturing industry and logistics industry are in a state of constant development and rise, the relationship between the two industries is in a state of disharmony in terms of our analysis of the above data as well as the actual development of the industry. Therefore, it is necessary for the government to carry out macroscopical planning and guidance on the whole.

Firstly, according to the actual situation of the two industries and integrating the future development strategic objectives, the relevant leading departments of the government should formulate the long-term plan, as well as the concrete implementation plan for the linkage development of logistics industry and manufacturing industry in Jilin Province as soon as possible. In the circumstance of defining the objective of developing specialized logistics such as automobile, petrochemical, and agricultural products, the Government should actively promote the formulation and implementation of specific programme[5]. At the same time, the government should pay close attention to the formulation and implementation of emergency logistics, trade logistics and logistics standards. What is more, the government should also promote the construction of logistics park and attract investment so as to realize the breakthrough of logistics industry in key areas and weak links, and finally promote the development of logistics industry. Secondly, the government should consider the logistics industry as the most important part in industrial planning. The local governments should leave room for the logistics industry when carrying out the industrial infrastructure implementation planning, and pay attention to the introduction of the related logistics industry consciously in the process of attracting investment, combining with the local actual economic conditions. Furthermore, the industrial linkage between logistics and manufacturing industry should break the boundaries of regional and administrative divisions. When making the planning of the linkage between regional logistics industry and industry, the government should not only combine the advantages of our region, but also follow the objective law of linkage between logistics industry and manufacturing industry, and it also should break through administrative divisions and regional restrictions, and formulate strategic plans from the perspective of long-term development.

#### **4.2 Improving mechanism: promoting the rapid development of "two industries linkage" in Jilin Province**

Firstly, establish perfect regulations and policies to create a good external environment for the linkage between logistics and manufacturing industry. According to the objective law of the development of logistics industry and manufacturing industry, and aiming at the actual situation, the government should formulate corresponding policies and regulations, establish a standardized and orderly market environment, and build up mutual trust, normative and fair external environment for the cooperation between the two industries, so as to promote the linkage and interaction between them[6]. In view of the characteristics of administrative divisions, the government should formulate corresponding policies to break the administrative monopoly and local protectionism, to establish an open and unified market and to promote the development of linkage. Secondly, the government should guide the allocation of resources and promote the linkage development of the two industries with the help of market mechanism. On the one hand, the government uses preferential policies to support local logistics enterprises to become bigger and stronger, so that they have the strength and scale to undertake manufacturing logistics; On the other hand, the industry should change the management concept of "big and complete, small and complete" and outsource the logistics industry, which is not part of its core business, so as to improve its core competitive advantage. Thirdly, the government should actively explore the mode of linkage between manufacturing and logistics industry, and build a bridge between them.

### **4.3 Information sharing: setting up the development information resource platform of "two industries linkage" in Jilin Province**

Logistics information system is the basis of establishing uniform urban logistics network and improving the service level of logistics enterprises. Logistics development needs to transform the existing urban information network, build a public logistics information platform, and realize the sharing of information resources among enterprises. From the actual situation of the linkage development between manufacturing enterprises and logistics enterprises, information system can not be interconnected, information resources can not be effectively exchanged and shared, which has become a major constraint factor. The establishment of public information platform on the basis of information sharing is of great benefit to both parties. For the logistics industry, information sharing is an important guarantee for the service function of logistics service transaction market; For the manufacturing industry, manufacturing enterprises can grasp timely and accurately the information of goods damage, cargo difference, warehousing and distribution, and improve the efficiency of production and marketing management, on the contrary, it not only increases the operating cost of enterprises, but also has a great influence on timely decision-making. Relevant government departments should promote the construction of information platform supported by public information service. Firstly, the government should establish the information service platform for the upstream and downstream customers of manufacturing enterprises and logistics enterprises, realize the data acquisition and docking, and provide an important foundation and guarantee for the realization of logistics information sharing mechanism. Secondly, the government should continuously provide the information of enterprises and industries to promote the construction and improvement of information platform. The government should strive to realize the collection of information, the standardization of storage, the transmission of information, and the smooth sharing of information, and finally it should establish a multifunctional and high-efficiency information platform[7]. What is more, the government should promote the information construction of logistics industry and manufacturing enterprises. The government should promote the database construction within the enterprise, collect the corresponding data of the cooperation object or the potential cooperation object as far as possible, and carry on the comprehensive and systematic analysis to its demand structure, scale and development trend, so as to provide the corresponding guarantee for making scientific and reasonable decision.

## **5. Conclusion**

Manufacturing industry is the pillar industry of Jilin national economy and the demand basis of logistics socialization; Logistics industry is an important producer service industry, which plays a significant role in promoting the adjustment of manufacturing structure and industrial upgrading, therefore, it is imperative to implement the linkage between manufacturing industry and logistics industry. The development of logistics industry can not only promote the development of service industry, but also improve the development of manufacturing industry. Based on the mechanism of the linkage development of modern logistics and manufacturing industry, this paper makes a deep analysis of the linkage development of manufacturing and logistics industry in Jilin Province, and puts forward the countermeasures and suggestions for the linkage development of manufacturing and logistics industry.

## **Acknowledgement**

Social Science Research Project of Jilin Province Education Department 2015337 - Jilin Province Educational Science Planning Project GH16245

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