

# Research on the Status Quo and Strategy of Logistics Industry Cluster Development in Jiangxi Province

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**Keywords:** logistics; industrial cluster; development

**Abstract:** Aiming at the development status of logistics industry clusters in Jiangxi Province, it is found that the transportation infrastructure is relatively complete, the logistics demand is growing, the local government pays more attention to the construction of logistics industry clusters and its rapid development is the advantage of the development of logistics industry in Jiangxi Province. However, it still has certain shortcomings, which hinders the orderly development of logistics industry clusters in Jiangxi Province, for example, the small scale of industrial clusters, the lack of systematic management system, and the lack of logistics professionals and insufficient information construction. Based on these problems, an optimization strategy for promoting the development of logistics industry clusters in Jiangxi Province was proposed.

## 1. Introduction

On January 23, 2019, the Jiangxi Provincial Logistics Industry Transformation and Upgrading Summit Forum was held in Nanchang. A total of more than 600 people attended the conference, focusing on the theme of the “new era, new opportunities, new challenges“ for the transformation and upgrading of the logistics industry in Jiangxi. Many well-known logistics enterprises in China, parks, government officials, relevant experts and scholars, financial representatives and outstanding entrepreneurs participated in the summit discussion, and jointly studied and discussed big data, cloud logistics, intelligence and regions according to the needs of modern logistics development. The application of various innovative technologies such as the industrial chain, in view of the achievements of Jiangxi logistics industry since the reform and opening up, further explored its optimization strategy of transformation and upgrading to promote the rapid development of the logistics industry cluster in Jiangxi.

As an important link in the supply chain, the logistics industry plays an important role in the national economic benefits. In general, the logistics industry runs through people's basic life. Therefore, it has the characteristics of service, comprehensiveness and high permeability, but it is separated from other industries and does not exist as a wholly-owned industry. The modern logistics industry has changed from the initial delivery of orders to logistics and logistics, to the further advancement of information flow, upstream, currency flow, and logistics. By optimizing the business elements of related enterprises, the quality of economic operations is ultimately improved and more More benefits<sup>[1]</sup>.

## 2. Development Status of Logistics Industry Clusters in Jiangxi Province

At this stage, industrial clusters are prevalent in various industries around the world due to their optimization of production organization structure. In the logistics industry, industrial clustering has realized economies of scale and is one of the ways to promote the effective development of logistics service enterprises, and is also an inevitable trend for the long-term development of logistics enterprises. Jiangxi logistics has also developed into a benign level. According to Jiangxi Province Logistics and Purchasing Association data, the average logistics industry index in Jiangxi in 2018 is 54.3%, and the overall operating conditions are good.

## **2.1 The transportation infrastructure is relatively complete**

In the 40 years of reform and opening up, the continuous improvement and innovation of Jiangxi's transportation infrastructure construction has achieved leap-forward development. First, the Jiangxi Expressway network system has been perfected throughout the province. In 2018 alone, the Jiangxi Provincial Expressway Network has formed a network system of “four verticals, six horizontals, eight shots and seventeen joints“, and the construction of the provincial passages. A total of 28 have been opened. At the same time, Xingguo to Zhangzhou, Guangchang to Shipding, Zixi Huashanjie to Limu and other 13 highway projects. In 2019, according to the "Jiangxi Expressway Network Planning Revision (2018-2035)" document, the implementation of the Changjiu reconstruction and expansion, Fuzhou East Outer Ring and other projects. Second, the construction of the provincial and provincial highways in Jiangxi Province has been gradually strengthened. From the perspective of road network structure, its comprehensive level has been significantly improved. According to the statistics of Jiangxi Provincial Communications Bureau, the proportion of national highways and provincial highways in Jiangxi Province in 2018 is 87% and 48% respectively. 3,630 kilometers of safe life protection projects and 152 kilometers of disaster prevention and control projects were completed. Third, the speed of water transport construction has gradually accelerated. Through deepening the implementation of the “Implementation Opinions on Accelerating Waterway Construction“, Jiangxi has been able to carry out the construction of the three-level waterway hub and channel of Minjiang River and Xinjiang River. At the same time, the second phase of the Nanchang Longgang Comprehensive Terminal, the Poyang Lake Xingzi and the Nanchang Water Emergency Base started. In addition, Jiangxi's railway and airport construction is gradually strengthening. At the same time, the application of information technology in the construction of transportation infrastructure is fully linked to the development needs of the current logistics industry.

## **2.2 Logistics demand continues to grow**

After the entry into the 21st century in Jiangxi Province, the industrialization process in the province has been continuously promoted, and the overall economic level has been improved. Under this market environment, people's consumption levels have also increased, which has contributed to the development of local foreign trade [2]. According to Jiangxi Provincial Customs statistics, in 2018, the amount of foreign trade in Jiangxi was 316.4 billion yuan, a year-on-year increase of 5.1%. Among them, the export value reached 222.4 billion yuan, an increase of 0.7%; the import value was 94 billion yuan, an increase of 17.3% compared with last year. In 2018, Jiangxi's consumer goods exceeded 1 billion yuan for the first time, with an import value of 1.72 billion yuan. After implementing the “One Belt, One Road“ development strategy, the import and export value of Jiangxi Province and its countries along the line reached 90.1 billion yuan in 2018. Compared with 2017, the growth rate was 15.2%, accounting for 28.5% of the province's import ratio. Overall, ASEAN's import and export volume reached 49.47 billion yuan, a year-on-year increase of 20%. The import and export volume of African and Japanese countries also had different growth rates, 27.9% and 48% respectively. . The import and export volume with the United States and the European Union was 38.68 billion yuan and 36.83 billion yuan. The pace of “going out“ of Jiangxi enterprises is accelerating, and the overall economic development speed is obviously improved. Based on this background, logistics demand is also growing. In 2018, the main income of logistics industry in Jiangxi Province is as high as 270 billion yuan, up 9% year-on-year in 2017. .

## **2.3 The government supports the logistics industry**

Faced with the changing international market environment, China attaches great importance to the development of the logistics industry. For a long time, various relevant support policies for the logistics industry have been formulated, and the local government of Jiangxi Province has also responded positively [3]. In order to provide a convenient transportation environment for logistics transportation, in 2018, the Ministry of Communications issued the “Interim Evaluation and Adjustment Plan for the “13th Five-Year Plan“ Special Construction Plan for Transportation” to

optimize and adjust the transportation network planning plan of Jiangxi Province. The local government of Jiangxi Province The actual situation and needs of the traffic planning and construction in Jiangxi Province, the study obtained the “Interim Evaluation and Adjustment Plan for the Special Construction Plan for the 13th Five-Year Development of Highway Waterway Transportation in Jiangxi Province“, and strengthened the implementation of the traffic infrastructure for the logistics industry. Pay attention to it. The state vigorously advocated "green transportation". In July 2018, the State Council promulgated the "Three-Year Plan for Printing Blue Sky Defence" policy, optimized the transportation structure of vehicles and ships through the proportion of cancer railway freight transportation, and strengthened the prevention and control of mobile pollution sources. In implementing this policy, Jiangxi Province has implemented logistics transportation through the use of new energy vehicles to effectively improve air quality. In order to save logistics costs and improve the transportation efficiency of the logistics industry, the State Council has deployed this meeting to stipulate that the land use tax for the bulk commodity storage facilities of logistics enterprises will be reduced by half from May 1, 2018 to December 31, 2019. In 2019, the pilot work for the cancellation of highway toll stations was promoted. There are still many policies formulated by the government on the development of logistics enterprises, including many aspects, which provide a strong policy guarantee for the development of the logistics industry.

## **2.4 Rapid development of logistics industry clusters**

In the process of transformation and upgrading of Jiangxi logistics industry, a new type of logistics industry has gradually formed. The logistics park is the inevitable result of the development of modern logistics industry. The establishment of the logistics park has enabled the scale of the logistics industry cluster in Jiangxi to grow and develop, and at the same time, it has greatly helped the development of the logistics industry in Jiangxi. According to the data released by the Jiangxi Provincial Federation of Logistics and Purchasing, according to the data released by the Jiangxi Provincial Federation of Logistics and Purchasing, in 2018, there were 186 logistics enterprises in Jiangxi Province that reached the A-level, and 83 enterprises reached the level of 4A or above. The proportion reached 44.6%, and there were 2 cold chain logistics companies with four stars. In recent years, Jiangxi logistics enterprises have emerged rapidly in China's logistics industry. Among them, there are many companies with leading role models that are constantly innovating in the logistics operation mode and occupy a leading position in the industry. For example, Zhengguangtong and Wanhao Logistics took the lead in piloting the car-free carrier mode, which is the innovation of Jiangxi logistics enterprises. In addition, under the rapid development of the logistics industry cluster in Jiangxi, some excellent parks and enterprises have emerged. For example, Ganzhou Chuanhua North-South Highway Port and Yingtan Modern Logistics Park were rated as “Excellent Logistics Parks in 2018“ by China Logistics Association, and Sanzhi Logistics entered the top four in the country in 2018.

## **3. Inadequacies in the development of logistics industry clusters in Jiangxi Province**

### **3.1 Unbalanced development level of industrial clusters**

It is undeniable that the logistics industry in Jiangxi Province has indeed achieved rapid development in recent years, but in general, its industrial cluster structure needs to be further improved. As shown in Table 1, there are 186 grades of logistics enterprises in Jiangxi Province above Grade A (including Grade A), of which 83 are Grade 4A or above. However, in terms of the layout of the overall star-rated enterprises, except for the relatively uniform distribution of logistics enterprises in Nanchang and Chenzhou, the distribution of the level of logistics enterprises in other regions is not concentrated. There are 47 logistics enterprises of Grade A and above in Nanchang, including 15, 19 and 13 integrated service, transportation and storage types. There are 34 logistics enterprises of Grade A and above in Cangzhou City, of which there are 14, 12 and 8 integrated service, transportation and storage types respectively. In other parts of Jiangxi Province, there are not only a small number of logistics enterprises above Grade A, but also their distribution types are

relatively unbalanced. There are 9 and 10 logistics enterprises above Grade A in Shangrao City and Jingdezhen City. Among them, Shangrao City's comprehensive service-type A-level and above enterprises only have two, and they have not reached the level of 3A or above. The warehouse-type logistics enterprises have only one level 2A and one level 4A. There are only two 4A grade warehouse enterprises in Jingdezhen City, and other logistics enterprises above the star level are very scarce [4]. In general, the level of industrial cluster development in various regions of Jiangxi Province is not balanced, which will hinder the development of Jiangxi's overall logistics industry to a certain extent. In the face of this problem, it is necessary for Jiangxi Province to have a logistics industry for the province. The layout is rationally optimized to further enhance the comprehensive development capability of the logistics industry.

Table 1 Distribution of logistics enterprises above Grade A (including Class A) in Jiangxi Province in 2018 (Unit: home)

	Integrated service type					Transport type					Warehouse type					total
	5A	4A	3A	2A	A	5A	4A	3A	2A	A	5A	4A	3A	2A	A	
Nanchang City	3	7	1	2	2	2	8		3	6	2	5	1		5	47
Jiujiang City		4	3		5	1	4		1	4	1	3		1	2	29
Fuzhou City		1		2	1		2		1	1		1			3	12
Ganzhou City	2	4	3		5	2	3	2		5	1	3			4	34
Jingdezhen City		1		1	2		1			3		2				10
Pingxiang City		1	1		3		2			4	1	1			2	15
Shangrao City				1	1	1	2			2		1		1		9
Yichun City	1	2			4	1		1		1		3		2	3	18
Yingtian City		1			2	1	1			3		1		1	2	12
total	6	21	8	6	25	8	23	3	5	29	5	20	1	5	21	186

Source: Jiangxi Provincial Federation of Logistics and Purchasing

### 3.2 Lack of systematic management system

The long-term development of the logistics industry will inevitably match the changing trend of the times. Therefore, the scientific and standardized modern management level of the logistics industry in Jiangxi Province should be improved. As far as the current development status of logistics industry clusters in Jiangxi Province is concerned, although 50 logistics industry clusters have been established (Table 2), and the main revenue is 270 billion yuan (data from the public information of Jiangxi Provincial Department of Commerce), currently Jiangxi Province The types of logistics industry clusters include industrial, agricultural and comprehensive types. The modern logistics industry has strong cross-cutting and penetration with other industries. In addition to transportation, it also deals with postal, warehousing, packaging, distribution and processing industries.

Therefore, multiple departments need to coordinate management. In the actual management process, each department is generally only responsible for managing the work of their respective departments. The overall management of the logistics industry is actually in a state of various things. For example, the planning of logistics industry clusters, land, transportation, and taxation, etc. The management responsibility of the company carries out management work, lacks a systematic management system, and cannot achieve collaborative management [5]. This is not compatible with the development model of logistics industry cluster modernization, and the imperfect management system is also easy to make the various policy systems of logistics enterprises unable to be effectively implemented and implemented, resulting in waste of resources for the logistics industry, making the logistics industry cross-industry and cross-regional. The ability to develop cannot be improved.

### 3.3 Lack of logistics professionals

In the transition period of the logistics industry, professional and technical personnel are the necessary logistical guarantees to ensure their smooth transformation. Therefore, they have higher

requirements for the comprehensive quality and professional skills of the employees. Each position needs to be equipped with high-quality, highly skilled professionals. Matching the development of modern logistics. Among the 12 categories of talents in domestic statistics, logistics talents are included. According to the data of China Logistics Information Center, the number of middle and senior logistics professionals required in China is more than 6 million. In 2018, the demand for logistics talents above junior colleges in China exceeds 600,000, but the 2018 logistics related professional graduates are only 156,000, a big gap with the demand. The lack of logistics professionals has become a common problem in the national logistics industry. At this stage, the logistics industry in Jiangxi Province has a large number of warehousing and transportation services, and the professional and technical personnel and high-quality operation management talents required for modern logistics are particularly lacking. There are 29 specialized colleges in Jiangxi Province that offer logistics management majors, such as Nanchang Institute of Technology, Jiangxi Industrial and Trade Vocational and Technical College, and Jiangxi Agricultural Engineering Vocational College. They have cultivated a lot of logistics talents for the society, but the actual training of logistics talents is impossible. Meet the needs of the logistics industry. In addition, the qualification certification of practitioners in the logistics industry has long been in a state of deficiencies, and logistics practitioners lack short-term training institutions to enhance the professional capabilities of their respective personnel. Finally, the salary level of Jiangxi Province's material industry is relatively high. According to the data of China Logistics Information Center, the average salary of college graduates, undergraduates and masters in Jiangxi Province is 3669 yuan/month, 4016 yuan/month and 6185 yuan / month. This salary level has a certain gap with other coastal cities in China, which has caused certain obstacles to attracting talents to the development of logistics industry in Jiangxi Province.

### **3.4 The level of informationization of logistics system needs to be improved**

Internet information technology plays an important role in the modern economic development system. At the same time, it has become a necessary condition for the successful transformation of modern logistics. Modern logistics relies on Internet information technology. The resources of all aspects of the enterprise can be optimally configured, and its operational efficiency will be able to be obtained. Rapid improvement [6]. However, as far as the current situation of the logistics industry cluster in Jiangxi Province is concerned, its informationization level is still at a relatively low stage, and it is urgent to improve it. According to statistics, in the 50 logistics industry clusters in Jiangxi Province, only 18 modern information technologies such as Internet, GPS, and EDI are used, accounting for 36%, and most of them still use traditional data recording methods for information processing. The drawbacks of this model are that it takes a long time, the error rate is high, the time cost and the labor cost are high, and the cluster advantage cannot be highlighted. The traditional management methods adopted by some enterprises have largely restricted the value-added services of the logistics industry, which is contrary to the JIT requirements of modern logistics. The construction of the information platform of the logistics system in Jiangxi Province is still not perfect. It is also reflected in the fact that some small and medium-sized logistics enterprises have poor application ability to modern equipment with advanced science and technology. At the same time, in the highly competitive market environment, some large-scale logistics enterprises are especially It is a transparent enterprise with a high level of information technology. Most small and medium-sized logistics enterprises have relatively weak ability to develop informatized logistics systems. As a result, there is a lack of information systems suitable for their development in the market. Therefore, traditional logistics management methods can only be extended. In addition, because the public logistics information exchange platform of the logistics industry cluster in Jiangxi Province has not been effectively established, the resources between the industries cannot be shared in time, and the operational capacity of the overall logistics system cannot be improved.

## **4. Optimization Strategy of Logistics Industry Cluster Development in Jiangxi Province**

### **4.1 Optimize the layout of logistics industry clusters**

The transformation and upgrading of Jiangxi's logistics industry requires the participation of all logistics enterprises in Jiangxi. In this process, the government plays a role of macro-control. Therefore, on the one hand, the Jiangxi provincial government departments should give full play to the role of "baton" to the logistics industry. The clusters should be rationally planned, and the layout of the logistics scale and the order of development should be fully included in the scope of planning, and provide diversified hardware and software conditions to support, in addition to continue to strengthen the necessary transportation infrastructure construction, to build 11 facilities in Jiangxi Province. The logistics network system of the district and city provides a good operating environment, and the preferential policies for optimizing land, management and financing are further implemented. According to the objective reality of the logistics industry in each district and city, formulate a logistics park management system that is consistent with local characteristics and can promote the logistics industry in Jiangxi Province, so that the logistics industry cluster can transform into modern logistics regardless of spatial layout, land use scale and logistics management mode. . On the other hand, in the existing types of logistics industry clusters in Jiangxi Province, the development of logistics enterprises in various facility areas is different, and there are differences in the scale of industrial clusters and operational capabilities. Therefore, on the one hand, it focuses on strengthening the leading enterprises in the industry. The strength of training will enable leading enterprises to become the benchmark for logistics enterprises in Jiangxi Province and drive the development of other small and medium-sized logistics enterprises. On the other hand, we can learn from the successful transformation experience of domestic and foreign excellent enterprises, intensively contract small-scale logistics enterprises, and operate in the form of chain cooperation. As a result, the resources of the logistics industry cluster in Jiangxi can be effectively integrated, and the overall strength can be improved.

### **4.2 Improve the scientific logistics management system**

The clustering of logistics industry is one of the ways for Jiangxi logistics enterprises to achieve economies of scale. It is not just the logistics enterprises of different types and strengths to expand their business scale, but on the basis of optimizing the industrial structure, the logistics service capacity of the province is improved. Further expand the market competitiveness of logistics enterprises in Jiangxi Province, which requires the support of a scientific logistics management system [7]. Firstly, the industrial chain of logistics enterprises in Jiangxi Province will be constructed with a cluster-based development strategy, which will enable logistics enterprises to optimize the allocation of resource costs and improve the production efficiency of each operation. It is also necessary to establish a standardized management process to ensure that the logistics company's business activities are more standardized. Second, a modern management mechanism is established within the logistics enterprise. Standardize and manage the organizational structure and operational activities of the enterprise, and improve the existing management system to form full self-discipline within the industry, and avoid the behavior of malicious competition caused by differences in the operational strength of each logistics enterprise. In terms of specific system improvement, we can integrate the management experience of domestic and foreign excellent logistics enterprises, take the best part, and implement the improvement according to their own development characteristics. Finally, we will innovate the development model of the material industry and seek to promote the steady development of the logistics industry in Jiangxi Province by means of technological innovation, service innovation and functional innovation. At the same time, we will promote green logistics to develop a new world of logistics systems.

### **4.3 Pay attention to the training of logistics talents**

The demand for professional talents in the logistics industry is still very large. Jiangxi Province is aware of its importance and has established logistics majors in several colleges and universities.

However, as far as the current situation is concerned, there is a great deviation between the supply of logistics talents and market demand. The management talents and technical talents required for modern logistics are seriously lacking. The logistics enterprises cannot implement the innovative logistics management mode, and their research and development capabilities cannot be improved. Strengthening the training of logistics professionals has become one of the main factors hindering the transformation of logistics enterprises in Jiangxi Province. Continue to solve urgently. Faced with this problem, the cultivation of modern logistics professionals in Jiangxi Province can be improved from the aspects of long-term training and short-term social training. In the setting of logistics professional courses, colleges and universities should fully combine the market demand and the excellent experience of western developed countries to optimize the course content and curriculum model, and maximize the role of the university personnel training system. At the same time, colleges and universities use the school-enterprise cooperation model to implement the training of logistics talents into a new training mode of production, learning and research, and reserve more high-quality composite application talents for the logistics industry in Jiangxi Province. In terms of short-term social training, special logistics training institutions can be set up within the logistics industry cluster to create a modern logistics professional talent training base. Logistics enterprises can also introduce excellent logistics professionals at home and abroad to participate in training and guidance. In the end, it is ensured that the talent supply of logistics enterprises is gradually matched with the needs of the industry, thereby enhancing market competitiveness.

#### **4.4 Vigorously promote the application of logistics information technology**

Information technology application is one of the effective ways for various industries to seek development and innovation. First of all, local governments in Jiangxi Province should increase the informationization of logistics industry clusters, and increase capital investment and set up logistics professional capital investment. Ways to build a logistics information platform. Secondly, the service function of the logistics information platform is optimized to enhance its additional service functions. During this period, we will pay attention to the construction of the information platform, and we should effectively connect all the entities in the logistics operation chain, such as the real-time publication of logistics information and the timely exchange of logistics data, so that we can integrate logistics information resources. Further improve the operational efficiency of logistics enterprises, and fully play the role of the information service of Jiangxi material industrial clusters. Finally, in the logistics system, the use of diversified information management technologies, such as ERP, MRP, vigorously promote the application range of modern information technology such as EDI, Bar code, and establish a systematic logistics network in conjunction with transportation, industry, and postal departments. center.

#### **5. Conclusion**

The development opportunities and challenges of the logistics industry clusters in Jiangxi Province coexist. Through the realization of economies of scale, combined with the application of new technologies such as big data, cloud computing, artificial intelligence, and blockchain, the operational efficiency of logistics enterprises is comprehensively improved. In the future, Jiangxi logistics industry clusters should always pay attention to the changes and development trends of the times to optimize and optimize the logistics system to ensure its healthy and sustainable development.

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