

Analysis on the potential and influencing factors of regional logistics industry development from the perspective of supply chain

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Abstract: The new normal of economic development has made the logistics industry, which has made significant contributions to economic growth, get more attention from the state. As a rookie of service industry, the rapid development of logistics not only increases employment opportunities and promotes the development of enterprises, but also stimulates people's consumption to a certain extent, which has an increasingly obvious impact on national economic development. However, there are still some problems in the coordinated development of China's regional logistics industry at present. To realize the development of logistics industry under the supply chain mode and promote regional economic growth, it is necessary to optimize all links. In addition, we should standardize the foreign investment in the development of logistics industry and formulate the information development strategy of logistics industry. This paper introduces the present situation, action mechanism and existing problems of regional logistics industry under supply chain mode, and puts forward corresponding strategies for its development.

1. Introduction

In the new economic era, due to the continuous progress of science and technology and economic development, the technological change is accelerated and the market competition is becoming increasingly fierce [1]. Technological progress and diversification of demand make the product life cycle shorten continuously, and enterprises are faced with the pressure of shortening delivery time, improving product quality, reducing cost and improving service. Market competition will not be between enterprises, but between supply chains. Whoever has the lowest total cost of supply chain and the fastest response will be invincible. Logistics, information flow and value flow constitute the whole supply chain. As the carrier of supply chain, logistics plays an important role in enterprise competition [2]. With the development of economy, logistics has become an important part of modern social service industry. Logistics is not only one of the driving forces of economic growth, but also a convenient provider of some economic activities. At the same time, the economic development also has a key impact on the development of the logistics industry [3]. Under the market economy, logistics industry, as an important part of modern service industry, can directly promote economic growth on the one hand, and indirectly affect economic development by providing convenience for other economic activities on the other hand [4]. Economic development is the key to the development of logistics industry. Social basic conditions are closely related to the development degree of regional economy, and then affect the development degree of logistics industry. Whether the logistics industry can realize the global development is closely related to whether the regional economy has realized the global development. Under the supply chain mode, the development of the logistics industry must be the whole logistics development in the whole process of the supply chain. Only by realizing the logistics development in the whole supply chain can the regional economy be better boosted.

2. The development status and characteristics of regional logistics industry under supply chain mode

2.1. Development status of regional logistics industry

Before the establishment of market economy, China's economic model implemented the planned economic system. The impact of planned economic model on the society was that the logistics demand was low, and the social production and transportation were all controlled by the state, which restricted the free flow of social materials. According to the characteristics of the planned economy system, the concept of logistics is lacking in society during the implementation period. However, with the development of market economy, logistics industry began to rise in Chinese society. Before the establishment of the market economy, China implemented the planned economy system. Under this model, the logistics demand of social production was relatively low, and our country exercised unified control over production and transportation, so that social materials could not flow freely. Therefore, the whole society did not have the concept of logistics during this period [5]. After the reform and opening up, the development of market economy has played a leading role in the rise and development of the logistics industry, so the logistics industry has ushered in a development opportunity.

The logistics industry under the supply chain model not only needs to provide product transportation services between enterprises and consumers, but also between enterprises and within enterprises [6]. Under this background, the development planning of logistics industry must be based on the comprehensive consideration of the logistics demand of the whole supply chain. However, at present, the overall consideration of China's logistics industry development planning is not perfect, focusing on the logistics development between enterprises and consumers, and lacking the consideration of logistics optimization within and between enterprises, which leads to the uncoordinated logistics development of upstream supply chain and the logistics level of enterprises and consumers.

In the information age, the information level formed by the development of regional economy also has some insufficient support for the information construction of logistics industry, and lacks a correct understanding of the construction and development of logistics information. At present, China's logistics industry is developing rapidly, and there are more and more logistics enterprises, but most of them still keep the traditional development path, lacking the construction and development of information system. Only some large-scale logistics enterprises are speeding up the information layout, lacking the information-based personnel training system and government policy support [7]. In recent years, the relevant government departments of our country have paid more and more attention to the development of logistics industry, but there is still a lack of scientific and rational consideration in policy implementation and pertinence [8]. At present, most enterprises in China only solve the current problems when formulating logistics informatization development strategies, lacking a strategic development plan for the overall situation. The lack of strategic planning also makes logistics enterprises have a large number of low-level repeated investments in information construction, which further aggravates the financial pressure of information construction.

2.2. Characteristics and Influencing Factors of Regional Logistics Industry

In recent decades, China's logistics industry has developed rapidly, showing the following characteristics in the development process. First, from the perspective of scale and development speed, China's logistics industry has achieved tremendous development. Its development speed is much higher than that of developed countries, and the scale of logistics industry can be compared with some developed countries in western Europe and America. Secondly, with the continuous improvement of transportation capacity and management technology of China's logistics industry, its operating performance has also been greatly improved. In recent years, with the continuous application of new logistics technology and the improvement of the profitability of enterprises, the operating conditions of the whole industry are getting better and better. Third, the logistics industry has not yet formed an overall network structure with reasonable regional layout. The development degree of logistics industry in different regions is unbalanced both vertically and horizontally. The main reason for this imbalance is directly related to the differences of economic levels in different regions of China. Fourthly, the maturity of the participants in the logistics industry is not high,

which makes it difficult for logistics enterprises to compete effectively with foreign capital [9].

The introduction and update of modern technology in the field of logistics makes the profitability of logistics enterprises constantly improve, and the operating conditions of logistics industry are brighter and brighter. Thirdly, the overall network structure has not yet been formed. There are obvious gaps in the development level of logistics industry in different regions of China, which is directly related to the regional gap of China's economic level [10]. The level gap of logistics industry makes the overall network structure with reasonable regional layout delayed. Finally, the logistics industry lacks mature participants, which leads to the lack of competitiveness of Chinese logistics enterprises compared with foreign capital.

The globalization of supply chain puts forward higher requirements for the logistics system capability of any region. Evaluation and research on regional logistics system capability in supply chain environment is the primary premise of regional logistics development orientation, strategic planning of logistics development and relevant countermeasures. Regional logistics system capability is the resultant force formed by the interaction of various factors. According to the characteristics of regional logistics system and following the above principles, an evaluation index system of regional logistics system capability is constructed, as shown in Figure 1.

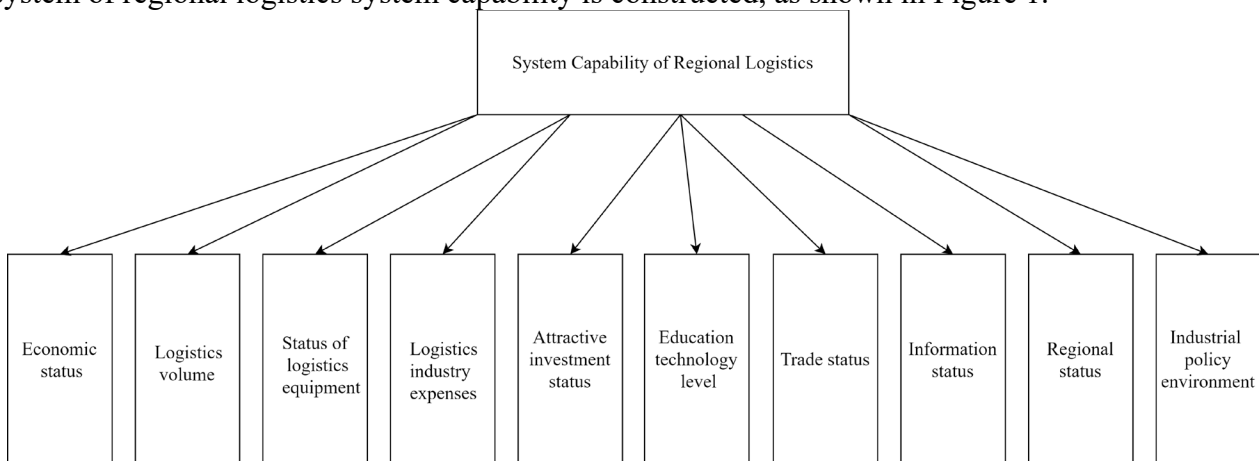


Figure 1 Regional Logistics System Capability Evaluation Index System

3. Coordinated development strategy of regional logistics industry under supply chain mode

3.1. Improve the logistics industry development plan to strengthen the support for regional economic development

The logistics industry in the supply chain mode must fully consider the logistics demand of the whole supply chain, rather than attend to one thing and lose another. Only in this way can it play a better role in promoting regional economic development. Under the supply chain mode, the development of logistics industry can't just be the development of a certain link, but the development of the whole logistics in the whole supply chain. Only by realizing the logistics development of all departments in the whole supply chain can we better promote the development of regional economy. To realize the development of logistics industry under the supply chain mode, we must optimize all links. The progress of logistics industry brought by the development of market economy has an important impact on economic development. Logistics industry can not only directly promote economic growth, but also influence economic development by providing convenience for economic activities. The logistics industry should try its best to realize the cooperation between enterprises when planning the development of logistics among producers. In addition, for enterprise internal logistics services, we should store products reasonably, reduce the frequency of internal logistics services, and reduce the workload of internal logistics services. For the logistics between producers and consumers, it is necessary to develop lean logistics and improve the transportation efficiency and effect of logistics. From the perspective of the whole supply chain logistics, it is necessary to use the modern information management system to realize the

information transformation of the logistics industry development, so as to improve the information management level of the whole logistics process.

3.2. Formulate the information development strategy of logistics industry

Strategy is the starting point of all management activities for an enterprise. Under the background of information age, if logistics enterprises want to carry out information development, they must start from their own reality and formulate the strategy of logistics information development. In the process of regional logistics industry development, it is necessary to speed up the circulation of information. The biggest difference between modern logistics and traditional logistics is the construction of modern logistics information. The improvement of information system can improve the supply level of logistics, and logistics information system can regulate and control internal logistics information to the greatest extent, speed up the update and dissemination of logistics information, and better promote the development of logistics industry. The information development stage of logistics industry is shown in Figure 2.

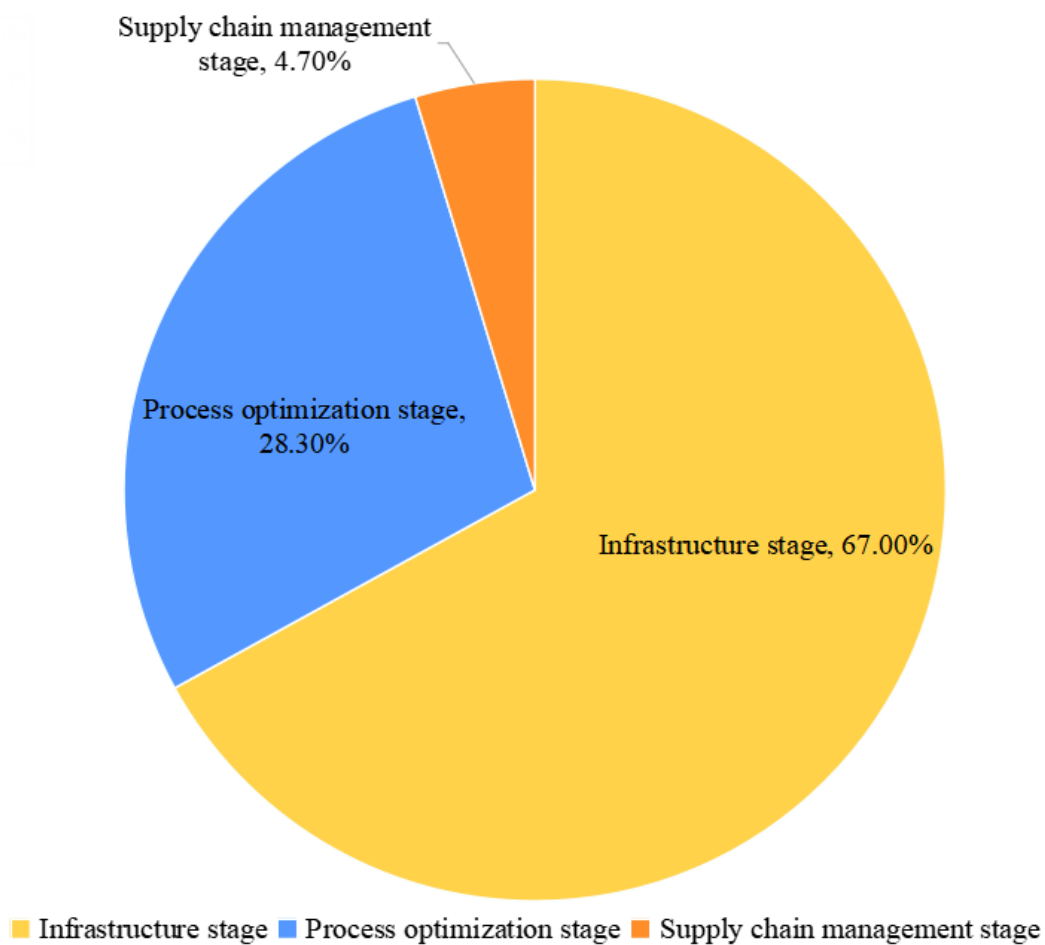


Figure 2 Information development stage of logistics industry

The overall design of the system should be considered, and the informatization function of enterprise logistics management should be promoted on the premise of technical feasibility. When designing information system in logistics enterprises, it is necessary to make scientific design, that is, it can cover all the business operations of enterprises, and at the same time, it should be prominent. To realize the scientific design of logistics enterprise information system, we must first invite experts and scholars in related fields to demonstrate the design concept before design. In the process of regional economic development, it is necessary to establish an independent information logistics system in the region, speed up the circulation of logistics information, and improve the utilization efficiency. The state needs to guide the establishment of a nationwide logistics information platform, so that all enterprises can participate in it fairly, so as to improve the

development level of China's overall logistics industry. Pay attention to the training of logistics industry professionals, so that enterprises can operate effectively under the control of logistics industry, and take the important responsibility of regional economic development and regional economic cooperation.

4. Conclusions

With the development of economic globalization and the improvement of the level of science and technology, the modern regional logistics industry has already changed from the traditional and passive form of command execution to the scientific service logistics under the supply chain mode. The logistics industry under the supply chain and the development of regional economy are interrelated and mutually promoted. Under the development of regional economy, the logistics industry model can further deepen the division of labor in society, strengthen the interconnection between enterprises, and help improve the utilization efficiency of resources. In short, the development of regional economy needs to strengthen the industrial coordination and comprehensive utilization of resources within the region, strengthen the cooperative development with the logistics industry, and enhance the mobility of information through the internal and external linkage of the region, so as to create more convenient conditions for the development of regional economy.

References

- [1] Crum M, Carter C R, Easton P L. Sustainable supply chain management: evolution and future directions[J]. *International Journal of Physical Distribution & Logistics Management*, 2015, 41(1):46-62.
- [2] Hou H, Chaudhry S, Chen Y, et al. Physical distribution, logistics, supply chain management, and the material flow theory: a historical perspective[J]. *Information Technology & Management*, 2015, 18(2):1-11.
- [3] Musigmann B, Gracht H, Hartmann E. Blockchain Technology in Logistics and Supply Chain Management—A Bibliometric Literature Review From 2016 to January 2020[J]. *IEEE Transactions on Engineering Management*, 2020, PP(99):1-20.
- [4] Anderson J. Choke Points: Logistics Workers Disrupting the Global Supply Chain[J]. *British Journal of Industrial Relations*, 2019, 57(2):412-414.
- [5] Wamba S F, Angappa G, Papadopoulos T, et al. Big data analytics in logistics and supply chain management[J]. *International Journal of Logistics Management*, 2018:00-00.
- [6] Wu L, Yue X, Jin A, et al. Smart supply chain management: a review and implications for future research[J]. *International Journal of Logistics Management*, 2016, 27(2):395-417.
- [7] Gonzalez-Loureiro M, Dabic M, Kiessling T. Supply chain management as the key to a firm's strategy in the global marketplace: Trends and research agenda[J]. *International Journal of Physical Distribution & Logistics Management*, 2015, 45(1/2):1-22.
- [8] Marchesini M, Alcantara R L C. Logistics activities in supply chain business process[J]. *International Journal of Logistics Management*, 2016, 27(1):6-30.
- [9] Grimm C, Knemeyer M, Polyviou M, et al. Supply chain management research in management journals[J]. *International Journal of Physical Distribution & Logistics Management*, 2015, 45(5):404-458.
- [10] Blackhurst D J, Lam J, Dai J. Developing supply chain security design of logistics service providers[J]. *International Journal of Physical Distribution & Logistics Management*, 2015, 45(7):674-690.