

## Development and Insight of TPL in the United States

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**Abstract.** With the vigorous development of global trade, the improvement of customer expectations and the development of outsourcing activities, 3PLs suppliers are playing an increasingly important role in the supply chain. U.S. 3PLs is at the world's leading level in terms of development speed and scale, value-added services and modern logistics technology. In recent years, with the rapid rise of China's e - commerce, in order to further promote the development of China's 3PLs, we should learn from the experience of the United States in the development of 3PLs and make unremitting efforts from the aspects of infrastructure and modern technology application, creating a good policy environment, expanding the value chain of 3PLs and innovating the personnel training mode, etc.

### The Development of the TPL in the United States

**The concept of 3PLs.** The service patterns provided by 3PLs service providers can be divided into three types: operation-related services, management-related services and both. No matter what form of service, it must be higher than that provided by the traditional Common Carrier and Contract Carrier [1]. In the 1980s, the concept of 3PLs began to emerge in the United States, which is a new type of logistics service form different from traditional transportation, warehousing and other logistics service forms. The book " Supply Chain Logistics Management" [2] written by Professor Ballsox and others pointed out that the reason for the emergence of the 3PLs mode in the United States in the 1980s was the large demand for outsourcing services in transportation, storage and distribution. In "Supply Chain Management Terms and Glossary" [3][8], the US Supply Chain Management Committee (CSCMP) explained the 3PLs as follows: enterprises outsource all or part of their logistics business to professional logistics companies.

**Scale of TPL.** Over the past 20 years, the third party logistics in the United States has developed very rapidly. In 1996, its market size was 30.8 billion us dollars. according to the statistics of Armstrong & Associates Inc' s annual market survey and statistics portal Statista, the net income of the third party logistics industry in 2017 increased by 5% to 77.1 billion us dollars compared with 2016, while the total revenue in the same period increased to 184.3 billion us dollars, with a growth rate of 10.5% higher than the 7% annual compound growth rate since 1995. Third party logistics employs 126,000 people. From the perspective of industry participants, the market scale of C. H. Robinson, XPO Logistics and UPS Supply Chain Solutions is relatively large, of which C. H. Robinson holds the first place with a revenue of nearly US \$ 14.87 billion, accounting for 8% of the market share of 3PL in the United States, and CR10 is 36% with a relatively high market concentration [4-5].

### The United States 3PLs Development Characteristics

**The third party logistics service has a wide range of fields, and one-stop service has become a new growth point.** The United States is one of the most economically developed countries in the world, so the third party logistics in the United States also matches its economic development level. According to the 29th "CSCMP' Annual state of logistics Report"[6] and "2018 state of the third party logistics industry report"[7] released by the American Supply Chain Management Professional Association, the US 3PLs revenue in 2016 was 166.8 billion US dollars, accounting for

20.8% of the global third party logistics revenue. During 2017 - 2019, the market is expected to grow by 5.5% to 195 billion US dollars, but in fact, the US 3PLs revenue grew by 10.5% to 184.3 billion US dollars in 2017. U.S. 3PLs service has long gone beyond the traditional logistics service category. In recent years, the rise of one-stop service has triggered the merger among logistics service providers. Large - scale mergers and acquisitions of 3PLs enterprises continue to occur. When 3PLs enterprises expand their scale through mergers and acquisitions, their service content and geographical scope are greatly increased, which can better meet the needs of customers in all aspects. 3PLs providers can not only provide comprehensive services for small companies to meet demand, but also accumulate experience for large customers to provide comprehensive solutions through one-stop service. Through cross-selling to obtain higher profits, 3PLs providers can also largely avoid loss of customers and enhance the competitiveness of 3PLs companies. The functions of U.S. 3PLs extend from providing storage, transportation and other functional services to consulting, finance and information management. The boundaries of 3PLs continue to extend. One - stop service brings new growth points to 3PLs.

**With the support of modern logistics technology, logistics efficiency can be improved.** The 22nd Third Party Logistics Survey Report lists the information technologies and tools required by the third party logistics suppliers.

Similar to the data of previous years, the technology with more execution and trading ability is still mentioned most by shippers and 3PLs providers. Such as warehouse / distribution center management, transportation management (planning and scheduling), visibility and electronic data interchange. Other common technologies include portals, bar codes, network modeling and optimization, supply chain planning, transportation procurement and global trade management tools. With the continuous development of e-commerce in the United States, it has also affected the logistics in the United States. The development of e-commerce has impacted the distribution network, especially in the retail industry, where the overall growth rate in the U.S. retail industry was 4% in 2017, while the retail e-commerce including digital services increased 16% year on year, reaching 453 billion dollars [8]. This makes large retailers in the United States focus on full-channel sales. According to a study in Harvard Business Review, the more full-channel contacts retailers provide, the more likely consumers are to use them and maintain loyalty [9]. This surge in demand for full-channel distribution once again provides great opportunities for those 3PLs enterprises that are ready to capitalize. In this mode, the third party logistics provider should provide unprecedented visibility and service level for B2C e-commerce retailers. IT can improve business operations, improve service or product delivery quality, provide customers with greater flexibility, and improve employee productivity. As the block chain can track and verify the production, circulation and delivery cycle of products in the supply chain, its application aims at eliminating many risks and concerns in the product distribution process, establishing high transparency, increasing safety and integrity. In the United States, Internet of Things, big data and cloud computing technologies are increasingly used in supply chain management. However, block chain is a cutting-edge technology in the industry. At present, the industry still lacks awareness of the application of block chain.

**Market-led advanced service industry.** The United States is the country with the most perfect market economy system. Some regulatory policies introduced by the United States in the 1960s restricted the development of the logistics industry. In the 1980s, with the cancellation of regulatory policies, the United States legally relaxed the access control of the logistics market, and more attention is paid to the supervision of the standardized operation of logistics enterprises. Establish a scientific and effective logistics management mechanism to create a free and competitive logistics environment. Second, the US government improved the contract law to provide protection for market operations. The United States will set more restrictive and practical policies based on the economic conditions, infrastructure and environment of each state to reduce administrative intervention. In addition, in accordance with the different economic conditions of the country, the relevant policies and regulations can be formulated in a timely manner. After the economic crisis in 2008, in response to the economic depression, the United States enacted the US Economic Recovery and Reinvestment Act of 2009, which can be used in the logistics and transportation

industry to ensure the development of the logistics industry and increase investment in logistics infrastructure.

There are no specialized federal agencies in the United States that manage the logistics industry, and different government administrations manage different modes of transportation. The Logistics Industry Association plays a very important role, each year, it writes a logistics report on the domestic and international logistics development status and trends. It plays an important role in promoting the development of the logistics industry.

**Attention to the training of logistics talents and improve the education and training system.**

In the future, the key to the success of the supply chain is the integration of technology and talent, and talents will play a leading role. Top supply chain managers can often handle the most complex issues and tend to develop strategic long-term solutions.

The logistics talent training system in the United States is relatively complete, and carried out a multi-level talent education system from vocational education to postgraduate education. About fifty universities have set up logistics-related majors, and some have set up postgraduate education in logistics. Well-known universities such as MIT, Northwestern University, and Orleans State University are all offering logistics and supply chain management courses [10]. In the US business category, supply chain management has become a hot profession. Driven by the demand for logistics talents, the logistics talent training in the United States is more targeted and satisfied to the needs of the logistics industry, forming a more reasonable logistics talent education and training system.

## **The Enlightenment of American Third Party Logistics Development to China**

### **Strengthening Infrastructure Development and Application of Modern Logistics Technology.**

Innovation is essential for 3PL providers in responding to demands for advanced logistics services [11]. Through innovation, 3PL providers can increase customer satisfaction, expand market share, outperform competitors, and enjoy a first-mover advantage [12].

China's 3PLs started late. Europe, America, Japan and other countries have developed earlier, and have already had perfect logistics infrastructure and logistics information platforms to support the development of their 3PLs enterprises and reduce logistics costs. In 2009, the total cost of social logistics in China accounted for 18.1% of GDP, which has dropped to 14.6% in 2017. Logistics efficiency has been further improved, however, the logistics cost in developed countries accounts for about 9% of GDP [13], China's logistics cost is still at a relatively high level. On the one hand, China's logistics infrastructure is not perfect, and on the other hand, modern logistics technology is not widely used. Facing the problem of backward logistics infrastructure in our country, we must first make overall planning and scientific layout so that different modes of transportation can be efficiently connected, vigorously develop multimodal transport, and avoid duplication of construction and waste of resources. Secondly, we will increase the scale of investment in logistics infrastructure and increase the construction of roads, railways, water transportation, aviation and pipelines. 3PLs enterprises must also integrate the existing logistics facilities, scientifically plan, realize transportation connection, form a three-dimensional transportation network, and pay attention to reducing logistics costs and improving service efficiency. Strengthen the construction of information network, use IT technology to realize the application of big data, cloud computing and the latest block chain technology in the field of 3PLs, improve the 3PLs system, improve the management level of multimodal transport, reduce the empty rate of goods, and repeat transportation and other unreasonable transportation with waste of resources.

**Play the role of government and create a good environment.** As logistics enterprises are not supervised by the established government agencies, the division of departments affects the development of the logistics industry and the adjustment of the industrial structure. Due to the large number of administrative departments, it is difficult for various management departments to coordinate without coordination and cooperation mechanism. The government should promote the reform of the administrative management system, break the division situation and learn from the relevant logistics laws and regulations of various departments in the United States, at the same time,

strengthen the supervision of the logistics industry, play the role of logistics associations to avoid vicious competition and other acts.

China's third-party logistics companies generally have small enterprise scale and market concentration, which is far dependent on the United States. However, the increasing demand of customers in service areas and service scope requires third-party logistics companies to expand their scale and scope in different ways. One of the three major themes of the "Medium and Long Term Plan for Logistics Development (2014-2020)" is "Pay Attention to Increase the Scale and Intensive Development of Logistics Enterprises". The government needs to jointly train logistics enterprises and encourage them to expand their scale through shareholding, merger and alliance. When promoting the scale expansion of third-party logistics enterprises, the government should establish a scientific and effective logistics management mechanism, formulate reasonable plans, create a relaxed legal environment, promote fair competition through the construction of a fair competition market system, guide and support the healthy development of the domestic logistics industry from the policy level, and continuously enhance the international competitiveness.

**Expand the service value chain.** Compared with developed countries, China has few well-known and influential 3PLs enterprises in the world. Most 3PLs enterprises in China are mainly committed to providing customers with basic logistics services, such as transportation and storage, and only participate in a part of the supply chain. The homogenization of services among enterprises and the provision of undifferentiated low-value-added logistics services have led to fierce price competition among enterprises, affecting their profitability. Facing the increasing demand of customers in service areas and service scope, enterprises need not only to expand their scale in different ways, but also to expand their service scope. The service value chain of China's third party logistics should also continue to extend to the downstream and upstream of the supply chain to provide diversified, integrated and integrated services to customers. Comprehensive transportation and warehousing logistics are still the basic logistics service functions of most 3PLs. Third party logistics enterprises can expand the scope and content of their logistics services through shareholding, mergers and acquisitions and alliances to achieve cross-regional and cross-industry development. With the improvement of IT capability of logistics providers and the application of modern logistics technology, they can provide valuable logistics information services to customers. In addition, 3PLs companies should actively expand other value-added services, such as supply chain financial services and integrated supply chain management services for customers.

**Innovative talents training methods.** Talents are the driving force of enterprise innovation and development. Judging from the experience of the development of 3PLs in the United States, talents are also the key to development. The shortage of logistics talents is also one of the reasons for the low degree of specialization of China's 3PLs. With the application of information technology, the continuous integration of modern technology into the field of 3PLs has widened the service scope and field of 3PLs. The current training of 3PLs talents should keep pace with the times. First of all, universities and other training institutions should constantly update the teaching system to introduce new teaching contents and methods. At the same time, schools and other educational institutions are required to upgrade their own teaching staff and have professional and comprehensive capabilities while adding logistics majors. Secondly, the training of logistics talents should focus on the combination of theory and practice, and the combination of school and enterprise to train professional talents. In addition to the theoretical teaching provided by universities, enterprises should provide a practical platform, pay attention to the application and practice of knowledge, teach in practice and apply what they have learned, so that the training of talents is not divorced from each other. Training talents that the company really needs can also promote employment and reduce the training cost of enterprises. Finally, developed countries such as Europe, the United States and Japan started the development of 3PLs earlier, the personnel training system has been relatively perfect, and high-quality personnel are available in all aspects of logistics. In contrast, China still has a long way to go. Therefore, it is also an effective way to take active measures to introduce foreign senior management personnel and excellent logistics talents to the problem of relative shortage of talents in our country.

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