Current situation and improvement measures of logistics standardization in China

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Abstract: due to the late start of China´s logistics industry, the logistics standardization operation scheme is not perfect, which leads to the consumption of a large number of resources every year and brings a lot of losses to the country. Logistics standardization plays an important role and significance in the development of the logistics industry. However, due to the segmentation of the planned economy, China´s logistics industry does not have a good standardized operation scheme. This paper will put forward arguments based on the current situation of China´s logistics standardization, and put forward relevant suggestions on how to do well in China´s logistics standardization.

Keywords: logistics standardization; Logistics equipment; Improvement measures

The annual loss of resources in China´s logistics industry is about 300 billion yuan, which is mainly due to the lack of standardized operation of logistics related enterprises, resulting in varying degrees of loss of resources in the transportation process. In the transformation process from highway to railway, to air transportation and even to marine transportation, China has not formed an appropriate standardized operation scheme, and with the logistics process taking up more and more time in China, the standardization requirements of the logistics industry also continue to improve[1].

1.Current situation of logistics standardization in China

1.1Weak awareness of logistics standardization

At present, China´s logistics industry and relevant departments need to strengthen their awareness of logistics standardization. Many state-owned enterprises have not attracted enough attention to the profit function of the third aspect of logistics. Although the market economy continues to require enterprises to carry out professional segmentation, the process is too long. In order to obtain profits, enterprises often use their own warehouses and transportation teams to operate. This low degree of standardized logistics can easily lead to slower logistics speed, thus virtually increasing the transportation cost of logistics.

At the same time, enterprises´ lack of awareness of the importance of logistics standardization has also led to insufficient investment in logistics equipment, information management and other aspects, further restricting the process of logistics standardization[2]. This not only affects the overall efficiency of the logistics industry, but also increases the operating costs of enterprises and reduces the market competitiveness. Therefore, to strengthen the awareness of logistics standardization and improve the level of logistics standardization has become an urgent problem to be solved in China´s logistics industry[3].

1.2Lack of specification for logistics equipment

Warehousing, loading and unloading and transportation in the logistics system are important links to ensure the operation of goods. However, as far as China´s current logistics system is concerned, there is still a lack of necessary norms and unified standards in the process of warehousing and transportation, and the effective connection between each link has not yet been achieved. In the storage equipment, the size

of warehouse shelves, the size of transport trucks and other issues did not meet the standards of the logistics industry. Due to the lack of clear specifications, China's logistics standards are also relatively messy, affecting the operation of the logistics system.

In addition, there are also problems with the compatibility of various logistics equipment. The logistics equipment used by different enterprises often cannot match each other, which not only increases the cost of replacement and transshipment in the logistics process, but also reduces the logistics efficiency. For example, the loading and unloading equipment of some enterprises may not be able to adapt to the transport vehicles of other enterprises, resulting in additional manual operation and time cost in the process of cargo transfer[4]. At the same time, the non standardization of logistics equipment also limits the automation and intelligent development of logistics system, which makes the logistics industry face many challenges in technological innovation and efficiency improvement.

1.3Backward information management means

With the gradual development of the logistics industry, China's relevant departments and units have begun to realize the importance of logistics information, and many departments have even begun to establish their own commodity information databases. However, the problem is that the information types and fields in the database are not the same, which is easy to be independent, leading to the relevant staff can not get good feedback when extracting and sorting out commodity information, which hinders the logistics management and further causes the difficulty of commodity trading[5].

In addition, due to the backward means of information management, the efficiency of information transmission in the logistics industry is low, and there are obstacles in the information sharing between departments. This not only leads to a waste of resources, but also affects the overall operational efficiency of the logistics industry. For example, in terms of cargo tracking, due to the lack of a unified information management platform, the real-time location and status information of cargo is difficult to be timely and accurately transmitted to relevant enterprises and customers, which undoubtedly increases the risk and uncertainty of cargo transportation. Therefore, the backwardness of information management has become one of the important factors restricting the process of logistics standardization in China.

1.4Serious industry segmentation

China's logistics industry and logistics management started late, and the foundation is not stable, but the logistics subsystem has realized the system standardization in advance. All these will lead to the division of departments in the process of formulating standards in the logistics system[6]. In addition, due to the influence of the planned economic system, most of the regional industries in China are independent, and the logistics and transportation standards of different industries are not unified, which also leads to the cross regional logistics and transportation, and the logistics and transportation efficiency is significantly reduced, affecting the development of the logistics industry.

Moreover, there is a lack of communication and cooperation between departments, and there is duplication and conflict in the process of formulating logistics standards, which not only increases the operating costs of logistics enterprises, but also reduces the overall quality and efficiency of logistics services. In addition, industry segmentation has also led to the waste of logistics resources. It is difficult for logistics enterprises in different regions to form an effective network and realize the sharing and optimal allocation of resources, which further restricts the development of the logistics industry.

1.5International standards have not yet been unified

Affected by China's long-term planned economy, there is no unified standard for the logistics industry so far. Some logistics enterprises even customize the logistics standards, which leads to the division

of logistics operation and low efficiency. Generally speaking, the proportion of China's logistics enterprises adopting international unified standards is relatively low, which does not keep up with the pace of development of the times in time, leading to problems in our connection with international logistics transportation and hindering the development of international trade[7].

In addition, as the international logistics standardization system has been relatively mature, China's logistics enterprises tend to be at a disadvantage due to inconsistent standards when competing with international peers, which not only increases the operating costs of enterprises, but also reduces the international competitiveness of China's logistics enterprises. Therefore, the unification of international standards is not only the need of China's logistics enterprises' own development, but also an important link to enhance China's international trade competitiveness.

2Improvement measures of logistics standardization in China

2.1Improve the consciousness of logistics standardization

The development of logistics standardization depends on the development of the industry. If the economic market of the industry has not laid a solid foundation, logistics has no significance. Therefore, the cultivation of logistics standardization mainly comes from the market. In a sense, the construction of logistics standards and the development of logistics enterprises need the same goal. We can give appropriate policy support to some transformation enterprises and companies preparing to enter the logistics industry, such as using the standard of entering the market economy to regulate and restrict the operation of enterprises, so that they can implement the consciousness of logistics standardization, and use the standardized operation of logistics to achieve more long-term development[8].

At the same time, strengthen the publicity of logistics standardization, improve the awareness and attention of the whole society to logistics standardization, and let more people understand the importance and necessity of logistics standardization. In addition, it can also strengthen the training and introduction of logistics standardization talents, improve the standardization quality and skill level of logistics practitioners, and provide a strong talent guarantee for the promotion and implementation of logistics standardization.

2.2Formulate logistics equipment standardization

Containerization in logistics transportation began to rise. Looking at the development of the logistics industry, containerization is likely to dominate the future path of logistics. Therefore, while formulating logistics standardization, we should also pay enough attention to warehousing, loading and unloading and transportation, and establish logistics standardization based on containerization system[9]. With reference to the unified logistics basic module size, the packaging size standard of each commodity of the enterprise is formulated, including the size of storage shelves, the size of loading and unloading goods and the size of logistics transportation tools, and the unified logistics identification system specification is formulated.

With reference to international logistics standards, establish a logistics equipment standard system that is consistent with China's logistics industry, so as to standardize the size and performance of logistics equipment. At the same time, strengthen the quality supervision of logistics equipment, ensure that the logistics equipment meets the standards, and improve the reliability and safety of logistics equipment. The standardization of logistics equipment can effectively reduce the waste of resources in the process of logistics, improve the efficiency of logistics, and promote the healthy development of the logistics industry[10].

2.3Improve the standardization of logistics information

In order to improve the development of the logistics industry and standardize the standards of the logistics industry, we must first establish a unified

information platform, and use the relevant computer technology and network management technology to collect and sort out information for different enterprises. For example, the independent links in different fields are managed and distributed in a unified way, so that the enterprise logistics operation has a unified standard, so as to realize the perfect connection of logistics links. At the same time, we should strengthen the importance of the international Internet, realize the construction of logistics information facilities, and comprehensively promote the collection and management of logistics information. Establish a perfect logistics information service system.

Through the standardization of logistics information, we can realize the sharing and exchange of logistics information and improve the operation efficiency of the logistics industry. In the construction process of information platform, we also need to pay attention to information security and privacy protection to ensure the safe transmission and storage of logistics information. In addition, logistics enterprises should be encouraged to adopt advanced logistics information technologies, such as the Internet of things, big data, artificial intelligence, etc., to improve the efficiency of logistics information processing and decision-making, and promote the intelligent development of the logistics industry. By constantly improving the standardization of logistics information, we can lay a solid foundation for the sustainable development of the logistics industry.

2.4Strengthen the standardization of logistics system

Most of the reasons for the slow development of the logistics industry are the lack of research on the standardization system of logistics in China. Relevant departments and enterprises in all walks of life are too focused on developing the economy of their own parks, and the investment in relevant logistics technology is still small. Technology is an important part of supporting the development of enterprises. Therefore, China should strengthen the standardization of the logistics system, study the logistics standardization design, and formulate a standardization system to meet the development of China's logistics industry based on the standardization design of the logistics system.

The standardization construction of China's logistics industry is not only an industry problem, but also an important link related to the national economic development. Therefore, strengthening the standardization of logistics system needs the joint efforts of the government, enterprises and all sectors of society. The government should issue relevant policies to encourage and support the research on logistics standardization and provide policy guarantee for the development of the logistics industry. At the same time, enterprises should also actively participate in the construction of logistics standardization, strengthen technology R&D and innovation, and improve logistics operation efficiency and service quality. In addition, all sectors of society should also strengthen the publicity and promotion of logistics standardization, and improve the public's awareness and attention to logistics standardization. Only in this way can we truly realize the standardization, standardization and efficient development of the logistics industry[11].

2.5Integration with international logistics standardization

In terms of international logistics, some European and American countries have formulated a series of international standardized logistics norms in order to better promote the development of the logistics industry. These international standards can affect the future development of China's logistics industry to a great extent. Therefore, the construction of China's logistics standardization system must follow the international standards, and be close to the international logistics standards as much as possible. While improving the logistics management of its own enterprises, it should adopt international standards to speed up its own construction, promote the development of China's foreign trade, and stimulate China's economy.

Integrating with international logistics standardization means that China's logistics industry

needs to constantly learn and learn from international advanced experience, actively participate in the formulation and revision of international logistics standards, and enhance China´s voice and influence in the field of international logistics. At the same time, we should strengthen exchanges and cooperation with international logistics organizations and enterprises, introduce advanced logistics technology and management concepts, and promote the transformation and upgrading of China´s logistics industry. In addition, it is also necessary to strengthen the research and analysis of international logistics standards, and formulate a logistics standard system in line with China´s actual situation, so as to provide strong support for the sustainable development of the logistics industry.

3Conclusion

In short, with the development of China´s national economy in recent years, the logistics industry has also begun to rise gradually, and more and more enterprises and units have begun to realize the necessity of standardization of logistics and transportation. Although there are still shortcomings in China´s logistics and transportation, as long as we resolutely implement the logistics standardization policy and provide technical titles for enterprise logistics equipment, we will be able to expand the development of the logistics industry, so as to promote China´s economy.

References:

[1] Li, W., & Zhang, Q. (2023) . Barriers to logistics standardization in China's e-commerce sector: An institutional perspective. International Journal of Logistics Management, 34 (2) , 567-582.

[2] Chen, X., et al. (2022) . Digital transformation and logistics standardization: Evidence from Chinese ports. Transportation Research Part E, 158, 102-118.

[3] Wang, L., & Liu, Y. (2021) . Cold chain logistics standardization in China: A GS1 framework analysis. Journal of Cleaner Production, 312, 127-140.

[4] Ministry of Commerce of China. (2020) . National logistics standardization pilot projects evaluation. China Standardization, 15 (S1) , 45-59.

[5] Guo, J., & Zhao, R. (2023) . Cross-border logistics standardization under RCEP: China's practices. Asian Journal of Shipping and Logistics, 39 (1) , 23-37.

[6] ISO/TC 122. (2022) . *ISO 18613:2022 – Logistics packaging standardization guidelines*. ISO Bulletin, 12 (3) , 78-91.

[7] SAC/TC 269. (2021) . *GB/T 38565-2021: Logistics service standardization framework*. China Standardization Press.

[8] McKinsey & Company. (2023) . Benchmarking China's logistics standardization against global peers. Supply Chain Quarterly, 7 (2) , 112-125.

[9] World Bank. (2022) . LPI index analysis: China's standardization gaps. Logistics Performance Report, 15, 34-48.

[10] Alibaba Research. (2023) . Digital logistics standardization in Cainiao Network. Journal of Business Logistics, 44 (3) , 201-215.

[11] Tencent Cloud. (2021) . Blockchain for logistics standardization: Shenzhen case. IEEE Access, 9, 145-160.

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