

Path to Enhance the International Competitiveness of Cross-Border E-Commerce Logistics Enterprises- Research Based on AHP Analysis Method

Wang Qi*

*School of Economics and Management, Lanzhou University of Technology, Gansu, China
jackie_wangqi@163.com*

**Corresponding author*

Abstract: According to the report of the General Administration of Customs, the total import and export value of goods trade in China in the first three quarters of 2020 was 60.514 trillion yuan, and the import and export of customs cross-border e-commerce management platform was 187.39 billion yuan, an increase of nearly 52.8%. The rapid development of cross-border e-commerce injected great impetus into the internationalization of cross-border logistics enterprises. Firstly, this paper constructs the evaluation index system of international competitiveness of cross-border e-commerce logistics enterprises, and then determines the weights of four first-class indexes and 12 second-class indexes by AHP. Finally, through empirical analysis, it is concluded that FedEx has the strongest competitiveness, AliExpress is the second, and SF Express is the last. Through the analysis of Blue Ocean strategy, it is concluded that China's cross-border logistics enterprises should improve their international competitiveness on the indicators with less weight, such as service level, information technology and resource endowment.

Keywords: Cross-Border E-Commerce, Cross-Border Logistics Enterprises, International Competitiveness, AHP Analysis

1. Introduction

In 2020, the whole network transaction volume of "Double Eleven" was 774.7 billion yuan, exceeding the whole network transaction volume of 410.1 billion yuan in 2019, an increase of 88.91% year-on-year. In the post-epidemic era, the contrarian growth of e-commerce is particularly noticeable. According to the data of the International Department of the Ministry of Commerce, in the first three quarters of 2020, China imported and exported 187.39 billion yuan through the customs cross-border e-commerce management platform, an increase of 52.8% year-on-year, and its rapid development promoted the rise of cross-border e-commerce logistics enterprises. With the implementation of China's going global strategy, "The Belt and Road Initiative", "Hainan Free Trade Port" and other major strategic layouts, China's cross-border e-commerce logistics enterprises have made remarkable achievements. Especially in November 2020, Minister of Commerce Zhong Shan signed the Regional Comprehensive Economic Partnership Agreement (RCEP) on behalf of the Chinese government with the trade ministers of 10 Asian countries and China, Japan, South Korea, Australia and New Zealand, which brought great opportunities for the development of cross-border e-commerce logistics enterprises.

2. Literature Review

As for the research on the path to enhance the international competitiveness of cross-border e-commerce logistics enterprises, scholars mainly analysis it based on quantitative and qualitative research. Qualitative analysis mainly includes SWOT analysis and Porter's theory of National Competitive Advantage. Yan Chenhui (2018) studied the advantages, disadvantages, opportunities and threats of Alibaba AliExpress development through SWOT analysis model; Zhou Hong and Du Hui analysed the production factors, demand factors, related and supporting industries, enterprise strategic structure and two auxiliary factors, government and opportunity, of cross-border e-commerce logistics enterprises through Diamonds Theoretical Model.

However, most scholars have chosen the analysis model combining quantitative and qualitative analysis. Wen Liqin, Lu Jinyong and Yang Minxi (2019) studied international competitiveness in four aspects: operation scale, service level, information technology innovation level and internationalization level based on ANP-TOPSIS Model; Liu Kai and Zhao Dongmei (2018) calculated the scale factor, enterprise factor, network factor and macroeconomic environment factor by factor analysis, and obtained the factor score coefficient matrix, and then calculated the international competitiveness of China Post, SF Express and DHL; Xu Xiaoli (2018) analysed six indicators such as logistics service level based on analytic hierarchy process to obtain a comparative judgment matrix. On this basis, a Fuzzy Evaluation Matrix was constructed to solve the maximum value, and the international competitiveness of cross-border e-commerce logistics enterprises in Hangzhou was determined. At a medium level; Li Jingwen, Li Fuqiang, etc. (2017) analysed 29 indicators of railway construction enterprises and railway equipment manufacturing enterprises by using analytic hierarchy process and grey system analysis, thus comprehensively evaluating the international competitiveness.

3. Construction of Evaluation System for Cross-border E-commerce Logistics Enterprises

3.1 Constructing Evaluation Index System

In today's world economic environment, the international competitiveness of an enterprise depends on the positive impact of its long-term competitive advantage in the operation process compared with similar enterprises in other countries. Cross-border e-commerce logistics enterprises should consider "human, financial and material" whether they choose domestic operation or foreign direct investment. To sum up, they should consider economic indicators, service indicators, technical indicators and international indicators. Therefore, this paper constructs the evaluation index system of international competitiveness of cross-border e-commerce logistics enterprises as shown in Table 1.

Table 1: Evaluation Index System of International Competitiveness

Target Layer	First Criterion Layer	Second Criterion Layer	Explanation
International Competitiveness of Cross-border E-commerce Logistics Enterprises	Economic Index	Asset Size	Fixed assets, infrastructure and resource endowment owned by enterprises
		Market Size	The overall scale of the industry in which the enterprise is located, such as output and output value, etc.
		Economic Benefit	Economic results obtained by enterprises through labor, such as sales profits
	Service Index	Human Resources	Enterprises have talents who master high and new technology, or highly educated talents, etc.
		Management Mode	Organizational goal, system, strategy and benefit distribution of enterprises
		Logistics Efficiency	Mainly consider the speediness, safety and flexibility of logistics transportation, and ensure the service quality at the same time
	Technical Index	Core Technology	The technology owned by enterprises is non-replicable, mainly in software and hardware, management and so on
		Innovation Capability	The ability to put forward new ideas, new inventions and new methods in practice
		Information Network	Sources and channels for enterprises to obtain information
	Internationalization Index	Overseas Income	Income from overseas operations of enterprises
		International Market Share	The market share of a product in the international market measures the international competitiveness of an enterprise
		International Brand Influence	The evaluation and recognition degree of the enterprise's brand by consumers in the international market

3.2 Construct a Weight System

With the help of the above evaluation index system, this paper constructs a research model based on

AHP to enhance the international competitiveness of cross-border e-commerce logistics enterprises. In this model, Based on the promotion path of competitiveness as the main goal, The criterion layer of economic index, service index, technical index and international index is put forward. At the same time, for the purpose of deeper research, sub-indexes are added under each index, so as to better judge the advantages and disadvantages of "FedEx, Alibaba AliExpress and SF Express" as the scheme layer.

Based on the above model, 17 matrices can be formed by comparing the related indexes. By solving the maximum eigenvalue (λ), consistency index (CI) and random consistency index (RI) for each matrix, the consistency ratio (CR) can be finally obtained. As long as $CR=CI/RI < 0.1$, the matrix is consistent. To better explain this process, Table 2 below summarizes the data at the first criterion level for calculation:

Table 2: Summary of First Criterion Layer Data

Ways to Improve Competitiveness	Economic Index	Service Index	Technical Index	Internationalization Index
Economic Index	1.000	4.500	3.822	1.214
Service Index	0.222	1.000	0.924	0.264
Technical Index	0.262	1.082	1.000	0.415
Internationalization Index	0.824	3.791	2.408	1.000

Step 1: According to the sum-product method, the matrix needs to be normalized by column, summed by column, and the proportion of each index to the sum of each column is calculated respectively. Then, by calculating the average value of each row, the corresponding weight (w_i) of each index can be obtained. The detailed data are shown in Table 3 below:

Table 3: Weight Distribution of Index in the First Criterion Layer

Ways to Improve Competitiveness	Economic Index	Service Index	Technical Index	Internationalization Index	w_i	Aw
Economic Index	0.433	0.434	0.469	0.420	0.439	1.762
Service Index	0.096	0.096	0.113	0.091	0.099	0.399
Technical Index	0.113	0.104	0.123	0.144	0.121	0.485
Internationalization Index	0.357	0.365	0.295	0.346	0.341	1.370

Step 2: Consistency check. In order to prevent the logic confusion of experts' scoring, which leads to the contradiction between two indicators, it is necessary to carry out consistency test. The specific steps of consistency inspection are as follows:

Step.2.1 According to the relevant calculation of the matrix, to calculate the maximum eigenvalue, that is, to solve the eigenvector (w_i) and multiply the matrix by the eigenvector (Aw), and then calculate the maximum eigenvalue formula of the matrix:

$$\lambda_{\max} = \sum_{i=1}^n \frac{[Aw]_i}{n\omega_i} \quad (1)$$

The maximum eigenvalue can be calculated:

$$\lambda_{\max} = 4.0138 \quad (2)$$

Step.2.2 Calculate the consistency index:

$$CI = (\lambda - n) / (n - 1) = 0.00459 \quad (3)$$

Step.2.3 By querying the random consistency index reference table 4, the RI of the fourth-order matrix is 0.89.

Table 4: Random consistency index (RI) reference table

Order	1	2	3	4	5	6	7
RI	0	0	0.52	0.89	1.12	1.26	1.36

Step.2. 4 Calculate consistency ratio:

$$CR = CI/RI = 0.0052 < 0.1 \quad (4)$$

Step.2. 5 Conclusion: The matrix is consistent

Based on the above steps, the remaining 16 matrices of summary data can be calculated in turn to ensure that the final matrix is consistent.

4. An Empirical Study on International Competitiveness of Three Cross-border Logistics Enterprises

4.1 Selection and Brief Introduction of Three Representative Enterprises of Cross-Border Logistics

This paper is based on FedEx, AliExpress and SF Express.

4.1.1 FedEx

After 50 years of development, FedEx has become one of the largest express delivery companies in the world, providing a series of services to customers and enterprises in more than 235 countries and regions around the world. FedEx entered the Chinese market in 1984. With its efficient and high-quality service, advanced information technology, international service covering the whole world and innovative and reasonable development strategy, FedEx won a good reputation among domestic customers, and its brand influence was deeply rooted in the hearts of the people.

4.1.2 AliExpress

AliExpress, a cross-border e-commerce platform owned by Alibaba, grew by 100% in 2015, far higher than the growth rate of similar platforms. AliExpress platform and Cainiao Network Technology Co., Ltd launched the official logistics system-AliExpress Worry-Free Logistics, which supports the languages of more than 30 countries and can complete the logistics data query of postal transportation and international express delivery in more than 170 countries. Ali's "global transportation" strategy is mainly based on Southeast Asia, such as Malaysia and Singapore. At the same time, AliExpress has opened a special logistics line in Spain and opened up the special logistics line market in China and Europe.

4.1.3 SF Express

As a leading enterprise in China's express delivery industry, SF Express's international express delivery service covers more than 50 countries around the world such as the United States, Japan, South Korea, ASEAN and the European Union, and its international service network covers 225 countries around the world. SF Express also actively participated in the construction of "the belt and road initiative" and invested in the operation service of China-Europe trains. At the same time, the "high-speed rail speed" with fast speed, stable operation and excellent quality jointly created with China Railway Express; All cargo planes of SF Airlines are navigable to 70 cities and regions at home and abroad, and more than 10 international routes are flying. In the past 28 years, with fast, efficient and high-quality service, it is widely liked by customers.

The above three cross-border e-commerce logistics enterprises have made remarkable achievements in logistics distribution, service quality, economic benefits and global strategic layout. At the same time, the three logistics enterprises are also consistent with the evaluation index system of international competitiveness in this paper. Therefore, this paper will make an empirical analysis of the international competitiveness of these three logistics enterprises based on AHP analysis.

4.2 Empirical Analysis of Competitiveness of Three Cross-border Logistics Enterprises

As can be seen from Figure 1 below, the economic indicators, internationalization indicators, technical indicators and service indicators of the first criterion layer account for 43.88%, 34.12%, 12.07 % and 9.93% in turn. It shows that among the factors affecting international competitiveness, economic indicators are the most important factors, that is, asset scale, market scale and economic benefits are particularly important for the promotion of competitiveness. At the same time, it is noted that internationalization indicators also occupy a large proportion, and these two indicators account for 78% of the total proportion. Through careful observation, we can find that both economic indicators and national indicators emphasize the income and share obtained by logistics enterprises in actual operation. Compared with the former two, the service index is not very significant, and its weight is only 9.93%.

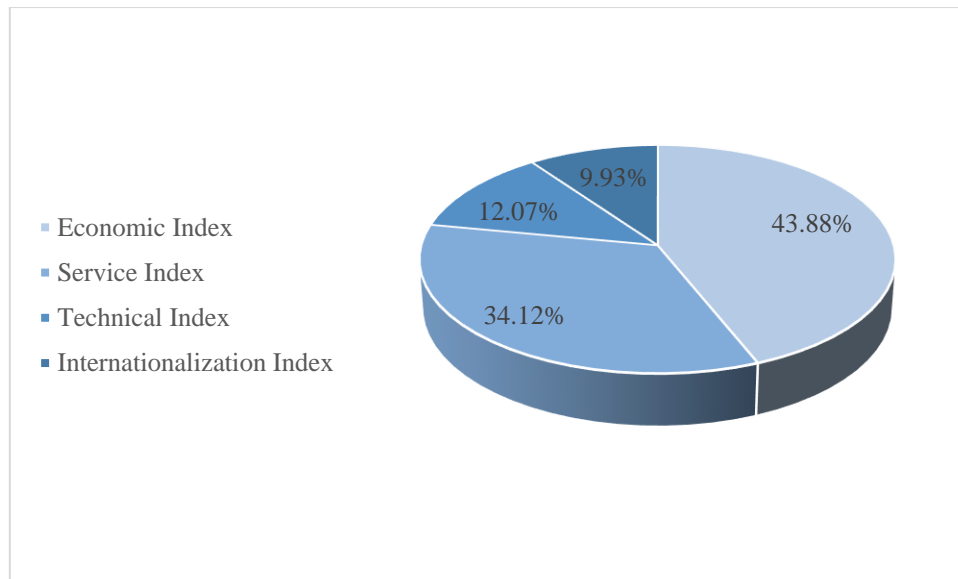


Figure 1: Target Weight of Elements in the First Criterion Layer

As shown in Figure 2 below, we can see that the weight of factors from information network to economic benefit increases from 1.26% to 25.61% in turn. On the one hand, economic benefits, overseas income, market size and international market share indicators are very important to the international competitiveness of cross-border e-commerce logistics enterprises, accounting for 64% of the total indicators, especially economic benefits account for 25% of the whole indicators, which shows its importance to the promotion of international competitiveness; On the other hand, the ranking of elements in the second criterion layer is also in accordance with the ranking of elements in the first criterion layer. Of course, information network, management mode, logistics efficiency and human resources have gradually become important elements that affect the development of logistics enterprises and enhance their competitiveness. This is one of the reasons why SF Express has become a giant of China's logistics enterprises with its efficient and high-quality service. Therefore, in addition to 64% of the essential core elements, the remaining 36% of the indicators have gradually become an important factor affecting the competitiveness of logistics enterprises. Just like the Red Sea and Blue Ocean strategy, when all logistics enterprises pay attention to the top 64% indicators, they are basically in the red sea zone. When enterprises take the remaining 36% indicators as competitive factors, they gradually open up a blue ocean from the red sea.

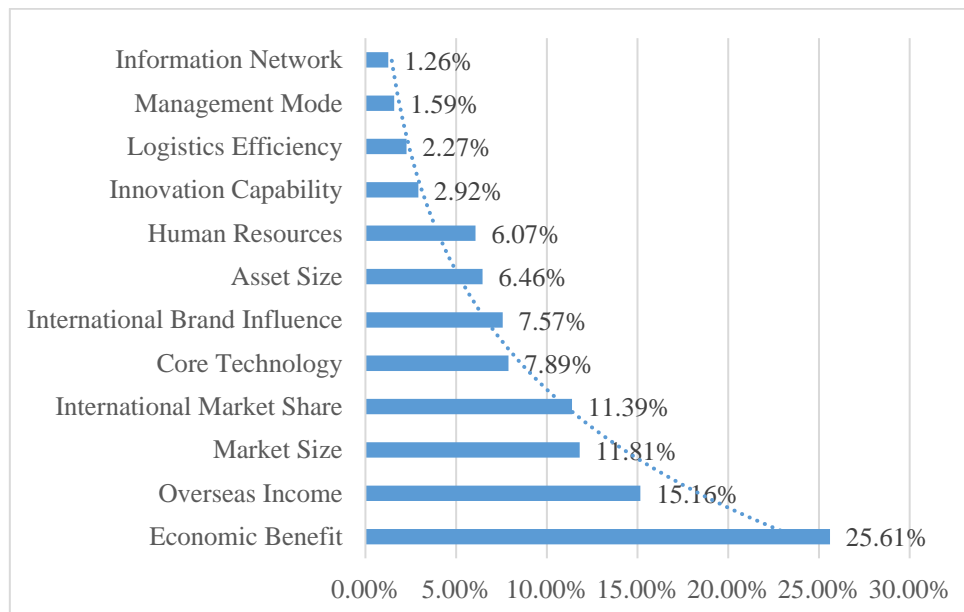


Figure 2: Target Weight of Elements in the Second Criterion Layer

As shown in Table 5 below, the weights of FedEx, Alibaba and SF Express are 0.4599, 0.3519 and

0.1882 respectively. On the whole, FedEx has the largest weight, which shows that it has the most competitive advantage in international competitiveness among cross-border e-commerce logistics enterprises. This is also one of the reasons why it can become the world's four major express delivery side by side with DHL, UPS and TNT. Alibaba's AliExpress accounts for 35.19% of the two major express delivery industries in China, which stems from Alibaba's global transportation strategic arrangement and its strategic layout with the help of Alibaba's strong brand power. Compared with the two giants, SF Express has a weight of only 18.82%, which is relatively low. However, with its 28-year strategic layout and creating a good trading experience for customers, SF Express has great room for improvement.

Table 5: Target Weight of Elements at Scheme Level

Alternatives	Weight
FedEx	0.4599
AliExpress	0.3519
SF Express	0.1882

4.3 Summary of This Chapter

By calculating the weight of "4 +12" index in the criterion level and the weight of three cross-border logistics enterprises in the scheme level, this section finds that the economic index and economic benefit account for a very high proportion in the whole system, accounting for almost 30% of the whole system, reflecting the great significance and deep influence of these indexes on enterprises. However, it must be acknowledged that countries are different in terms of resource endowments, production factors and location advantages, so it is difficult to unilaterally improve economic indicators overnight.

Therefore, in the next section, the way to enhance the international competitiveness of cross-border e-commerce logistics enterprises will be carried out according to the Blue Ocean Strategy. Just like David Ricardo's theory of comparative advantage, the division of labour is carried out according to the principle of comparative advantage, that is, "the weight of two advantages is taken, and the weight of two disadvantages is taken lightly". Admittedly, China is still unable to compare with some developed countries in terms of asset scale, market share and brand influence, but China has strong comparative advantages in service level, information technology, resource endowment and human resources. These advantages are precisely the feasible way to enter the Red Sea of cross-border e-commerce logistics enterprises and open up a blue ocean. Therefore, this paper discusses the path of improving the international competitiveness of cross-border e-commerce logistics enterprises by the above indicators.

5. Path to Enhance the International Competitiveness of Cross-Border E-Commerce Logistics Enterprises

5.1 Optimize the Service Level of Cross-Border E-Commerce Logistics Enterprises

Through analysis, it is found that the weight of cross-border e-commerce logistics enterprises in service indicators is low, accounting for only 9.93% of the total weight. However, in recent years, the development momentum of service industry has been improving. The Service Department of the Ministry of Commerce responded to the development of service outsourcing in China from January to December 2020. In 2020, the contract value of service outsourcing undertaken by Chinese enterprises was 1,702.27 billion yuan, and the implementation value was 1,211.32 billion yuan, up 8.4% and 13.3% respectively. Therefore, it is necessary for cross-border e-commerce logistics enterprises to optimize the service level of logistics industry and enter this blue ocean zone as early as possible.

5.1.1 Optimize the Operation Mode of Single Service of Cross-Border Logistics Enterprises

Single service refers to the operation mode that overseas suppliers transport goods to consumers through cross-border electronic commerce platform and cross-border logistics. Although this model can avoid the problem of customs declaration, to choose an optimal logistics enterprise, it often leads to the lack of service functions, unclear responsibilities in Gray areas and other issues. By changing the operation mode of single service, we can avoid the fragmentation of service functions, improve the intensive level of logistics enterprises, and realize the more systematic service level of logistics enterprises.

5.1.2 Improve the Service Efficiency and Warehousing Level of Cross-Border Logistics Enterprises

For China's cross-border logistics enterprises, due to the late start, they are relatively backward compared with other countries in terms of software and hardware facilities, technical level and human resources. In order to further seize the international market and improve the brand influence of domestic cross-border logistics enterprises, cross-border logistics enterprises can take advantage of the role of the third party or the fourth party and combine their unique advantages to compete internationally. For example, using a third party or a fourth party to outsource warehousing, customs declaration, inspection, distribution and other affairs can not only improve logistics efficiency, but also enhance competitiveness and enhance consumers' satisfaction with the enterprise.

5.2 Improve the Information Technology of Cross-Border E-Commerce Logistics Enterprises

Through analysis, it is found that the weight of technical indicators is only 12.07%, which is still small compared with economic indicators and international indicators. With the development of information technology, the rapid changes of market and customer demand have posed great challenges to the development of cross-border logistics enterprises. However, the performance of China's logistics enterprises in information construction and international logistics information integrated platform is still insufficient in competitiveness. Therefore, the improvement of information technology is imminent.

5.2.1 Give Full Play to the Role of Big Data and Cloud Computing

In the era of Internet plus, massive data and real-time changes have become one of the most obvious features of this era. If traditional tools are still used for analysis and calculation, the huge volume will seriously restrict the work efficiency. Cross-border logistics enterprises use big data computing to carry out scientific tracking analysis, systematically monitor and manage information acceptance, order processing, warehousing and transportation, and realize the transformation from traditional logistics to intelligent logistics. Cloud computing can provide customers with accurate information services through accurate calculation. Cross-border logistics enterprises should push digital intelligent technology and develop intelligent logistics in this big test. All enterprises and districts should gather logistics resources, establish databases for customer groups, and help enterprises to make overseas industrial layout by using intelligent technologies such as visual operation and analysis of information platform.

5.2.2 Accelerate the Construction of Logistics Information Integrated Platform

In the actual operation of enterprises, Most of the data are distributed in different systems in different departments of the enterprise, Such as enterprise resource planning (ERP), customer relationship management (CRM), procurement, transportation, warehousing, finance and other systems. All data are sealed in various systems, which leads to the business islands of the whole enterprise, the difficulty of sharing information effectively, and the difficulty of obtaining feedback information. Therefore, the development of enterprises is facing great challenges in the rapidly changing global competitive market environment. Therefore, if enterprises want to realize refined management, they must build a fast, efficient and transparent data intelligent database with the help of data platform, and summarize the business data of various departments in a unified platform for enterprise managers and decision makers to analysis and use, so as to create value benefits for enterprises and improve their competitiveness.

From a macro perspective, it is necessary to build a framework of logistics process information interaction among enterprises, establish a one-stop service centre, integrate logistics operation processes, and solve the problem of full tracking of cross-border logistics goods, so as to realize the completion of the construction of cross-border logistics information comprehensive platform. Cross-border logistics enterprises should realize interactive sharing of information account, order management, inventory management and transportation management. Strengthen cooperation with countries and regions with frequent transactions in cross-border electronic commerce, realize the synergy and symbiosis of upstream and downstream industrial chains such as cross-border e-commerce, logistics enterprises and customs, establish a seamless information platform, and realize the "community of logistics industry destiny".

5.3 The Resource Endowment of Cross-Border E-Commerce Logistics Enterprises Needs to Be Improved

Through analysis, it is found that asset scale (according to the evaluation index system of international competitiveness, resource endowment belongs to asset scale) accounts for only 6.46% of the 12 indexes, accounting for a small proportion. In the competition of cross-border logistics enterprises, the abundance of resource endowment also plays an important role. Just as Michael Porter's theory of national competitive advantage says, in order to prevent a country from falling into the trap of comparative advantage, it is necessary to increase the richness of advanced factors. The advanced factor endowment of cross-border logistics enterprises generally refers to infrastructure construction, transportation network, logistics distribution centre etc.

5.3.1 Accelerate the Improvement of Infrastructure Construction

In international practice, a country's logistics construction level and its development are usually measured by the proportion of a country's total social logistics cost to its GDP. The meaning of this proportion is that every 1% reduction can save 100 billion logistics costs, so the smaller the proportion, the greater the competitive advantage. According to He Liming, president of China Federation of Logistics and Purchasing, the ratio of total social logistics cost to GDP in China has dropped from 16% in 2015 to 14.6% in 2020, a decrease of 1.4 percentage points, which means that China's logistics cost has saved 1.4 trillion yuan. While making such achievements, the indicators of some developed countries such as the United States and Japan are stable in the range of 8%-9%. Therefore, the logistics cost in China is still relatively high, so we must speed up the improvement of logistics infrastructure, optimize the investment structure and save logistics costs. Strive to "promote the ratio of total logistics costs to GDP in the whole society to about 12% in 2025."

5.3.2 Reasonable Planning of Port Logistics Industry

In international trade transportation, transportation is carried out by land, sea, air and multimodal transport. Shipping is widely used in coastal cities in China, and shipping needs an industrial cluster integrating resources integration, industrial layout, talent concentration and innovative system. Port logistics industry cluster is beneficial to realize the advantages of synergy, economies of scale and specialized division of labour among various industries. However, the coordination of port logistics development in China is increasing at present. It is true that each port has its own information system, but the overall network layout is still lacking, and the information at all levels cannot be fully shared and exchanged, and all links of logistics transportation cannot be perfectly connected, resulting in the lag of logistics transportation efficiency. Therefore, it is necessary to strengthen the integration of macro-economic development and micro-resources, rationally plan material distribution centres, uniformly plan the logistics construction of ports and ports, face the international logistics system, realize international logistics standards, master core technologies and enhance international competitiveness.

References

- [1] Wen Liqin, Lu Jinyong, Yang Minjiao. *The path to enhance the international competitiveness of China's cross-border e-commerce logistics enterprises-a study based on ANP-TOPSIS model*. *Economic Issues*, 2019, *Cross-border E-commerce* (9): 45-52.
- [2] Liu Kan, Zhao Dongmei. *Empirical Study on Competitiveness of Logistics Enterprises in Cross-border Electronic Commerce*. *Logistics Management*, 2018, *Business Economics Research* (1): 93-96.
- [3] Xu Xiaoli. *Path to enhance the international competitiveness of cross-border e-commerce logistics based on fuzzy analytic hierarchy process*. *Logistics Management*, 2018, *Business Economics Research* (20): 93-95.
- [4] Guo Jianfang, Liu Ying. *Research on the path to enhance the international competitiveness of cross-border e-commerce logistics enterprises in Hangzhou-based on fuzzy analytic hierarchy process*. *E-Commerce*, 2017, *E-Business* (4): 5-21.
- [5] Li Jingwen, Li Fuqiang, Wan Xiangyu. *Research on the evaluation of international competitiveness of Chinese railway enterprises*. *China Engineering Science*, 2017, 19 (5): 5-21.
- [6] Zhou Hong, Du Hui. *Research on China's cross-border e-commerce logistics competitiveness based on DIA model*. *Logistics Technology*, 2015, 34 (9): 4-6.
- [7] Claire Kuo. *Path to enhance the competitiveness of small and micro cross-border e-commerce*

enterprises in the digital trade era. Foreign Trade and Economic Cooperation, 2020, *cross-border e-commerce* (11): 44-47.

[8] Qian Lili. *Path optimization of core competitiveness of logistics enterprises under cross-border e-commerce environment*. Zhengzhou: Zhengzhou University, 2019.

[9] Lv Jiaqi. *Research on the Development Strategy of FedEx in China*. Western Leather, 2018, *Theory and Research* (7): 101-104.

[10] Yan Chenhui. *Research on Cross-border E-commerce Logistics Based on SWOT Analysis-Taking Alibaba AliExpress Logistics as an Example*. Modern Marketing, 2019, *E-commerce*: 144-145.

[11] Zhang Bin, He Jiajia. *Construction of Logistics Public Information Platform and Its Impact on Enterprises-Taking Transportation Industry as an Example*. Logistics Platform, 2017, *Logistics* (17): 68-69.

[13] Li Xuemei. *Promoting the new advantages of China's cross-border logistics competition with Internet of Things technology*. Foreign Economic Relations and Trade, 208, *Chinese and Foreign Logistics Industry* (11): 88-91.

[14] Li Yanfang. *Risks and preventive measures of cross-border e-commerce B2B export by foreign trade enterprises*. Foreign Trade and Economic Cooperation, 2021, *Foreign Trade Business Discussion* (1): 69-71.

[15] Nie Yanling, Feng Yongfang. *Construction Countermeasures of Logistics Information System Based on Internet Technology*. Journal of Henan Institute of Science and Technology, 2016, 36 (9): 61-93.

[16] Lining Liu. *Research on the interactive development of port logistics industry cluster and coastal regional economy [D]*. Shan Dong: Ocean University of China, 2018.