Countermeasures on the Further Avocation of Shaanxi Commercial Logistics Center of Belt and Road

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Abstract: With the Advancement of the Belt and Road strategy, 18 provinces along the route, as important nodes, have drawn up plans for the construction of the Silk Road Trade and Logistics Center. However, they are facing certain difficulties and challenges in the process of developing in depth. Therefore, how to actively explore the path of further advancement is an urgent task for the governments along the route. Taking Shaanxi, the core area of the Silk Road economic belt as an example, arounding the development of Hub Economy, Portal Economy and Mobile Economy, this paper combed out the effective integration of location environment, policy strategy and energy resources in Shaanxi, and focused on the construction of the "Belt and Road" transportation and trade logistics center, which achieved remarkable results. This paper analyzes the gap between the current development situation and the strategic requirements of the Belt and Road, and puts forward some strategies for further development from several aspects, so as to provide some lessons for other provinces along the route. It has important reference value to enhance their ability to undertake business logistics industry.

1. Introduction

With the further development of the "Belt and Road" strategy, the 18 provinces along the line, as important nodes, have been at the forefront of China's opening up to the outside world, and have formulated and issued relevant construction action plans. With geographical advantages, it is an important task for provinces along the line to build transport and trade logistics centre. Through the development of business logistics, we have made great progress in the new round of regional economic competition and helped the country to enhance its comprehensive competitiveness. However, the transport and trade logistics centre of these provinces are facing some difficulties and challenges in the process of in-depth development. For example, at the international level, there are policy conflicts and legal system conflicts in economic and trade cooperation with the countries along the border. At the domestic level, they are also facing the pressure of homogenization competition among all the central cities along the route.

Therefore, for the provinces along the line, while grasping the important strategic opportunities, they should fully estimate and understand the difficulties, challenges and gaps, actively explore the in-depth promotion strategies of the transport and trade logistics centre, and play their regional logistics service functions and external radiation capabilities. Taking Shaanxi, the core area of the Silk Road Economic Belt as an example, this paper puts forward the strategy of further promotion, which can provide some enlightenment for other provinces along the line to determine the location, principle, direction and development strategy of their transport and trade logistics centre construction on the basis of combing Shaanxi's effective integration of location environment, policy strategy and energy resources, focusing on the development of hub economy, portals economy and mobile economy, efforts have been made to build "Belt and Road" transport and trade logistics centre, which has achieved remarkable results.
2. The development effect of Shaanxi transport and trade logistics

As an important node of the Silk Road Economic Belt, Shaanxi integrates various favorable conditions such as free trade zone, National Central City (Xi'an), Guanzhong plain city group, cross-border e-commerce comprehensive experimental area, forming a unique policy highland. In 2018, the total import and export volume of goods trade between Shaanxi and the countries and regions along the belt and road was 38 billion 900 million yuan, and the growth rate ranked third in the whole country.

2.1 The contribution rate of GDP and operation efficiency of the whole province's commercial logistics industry continue to improve

In recent years, starting from the overall situation of smooth international and domestic logistics of the whole silk road, Shaanxi has made new advantages in logistics, promoted the transformation and upgrading of the logistics industry, and made the logistics industry a pillar industry of Shaanxi, which has played a huge role in promoting industrial upgrading and economic development. In 2018, the total amount of social logistics in the whole province maintained a steady growth, and the scale continued to expand. For the first time, it broke the 5 trillion yuan, reaching 5071.86 billion yuan, and the growth rate also exceeded the national level, which is 41.66% higher than that in 2014. In 2018, the added value of logistics industry accounted for 15.0% of the added value of service industry, 6.42% of the regional GDP, that is an increase of 0.02% compared with 2014. In 2018, the total cost of social logistics in the whole province was 372.24 billion, accounting for 15.2% of the total social production, that is 0.3% lower than that in 2014. This also means that the level of logistics cost per unit of GDP in the province is reduced, and the economic operation efficiency and service level of logistics industry are improved. It can be seen that the development of business logistics in Shaanxi Province has shown a good trend of "overall stability, quality and efficiency improvement, transformation and upgrading".

Figure 1 total logistics expenses of Shaanxi in 2014-2018

Figure 2 Changes of logistics efficiency in Shaanxi Province from 2014 to 2018
2.2 International trade, transportation and logistics hub status significantly improved

2.2.1 To has initially formed the core circle of transportation, commerce and logistics around Xi'an

By continuously strengthening Xi'an's main position as a hub of transportation, commerce and logistics and an international metropolis, Shaanxi has constructed the Guanzhong Plain City Groups, built a core circle of transportation, commerce and logistics around Xi'an with complementary functions and coordinated development, and realized its leap from a regional central city to a national central city. On the one hand, since April 2015, Xi'an Comprehensive Free Trade Zone, Xi'An Aviation Base Comprehensive Free Trade Zone, Xi'An Railway Container Center Station, Xi'an first-class land (railway) open ports and designated import ports for meat, grain, whole vehicle import and ice fresh aquatic products have been approved and officially operated. "Xi'an port" has been approved as national code and international code and officially put into use. It has basically formed a port system with airport, railway port and E-port as the main supporting points. At present, it has reached cooperative relations with 14 coastal ports and ports. These are the strong basic advantages of Xi'an as the core circle of logistics. On the other hand, Xi'an is positioned as an international logistics hub, a core city of national urban agglomeration and a national center city by the state. These are the policy advantages of Xi'an as a logistics core circle that no one can reach. All of these play a key, important and positive role in the integration of logistics resources in Shaanxi system and the acceleration of the construction process of transport and trade logistics centre.

So far, Shaanxi has formed a "1-3-6" node city logistics network with Xi'an as the core node, Baoji, Yulin and Ankang as the first level nodes, Tongchuan, Weinan, Yan'an, Hanzhong, Shangluo and Yangling as the second level nodes, and counties (districts and cities) as the third level nodes, providing a powerful multi-point support for the construction of Shaanxi silk road transport and trade logistics centre.

2.2.2 To have accelerated the formation of modern comprehensive transportation network

Since April 2015, Shaanxi has actively built a three-dimensional land and air silk road open channel by taking advantage of its location advantages, relying on the combined transportation system of highway, railway, aviation and so on. So far, the comprehensive transportation system of "one office + multiple bureaus + professional enterprises" has been preliminarily constructed. Specifically, first of all, to build an international aviation hub and vigorously develop the airport economy. On the one hand, Shaanxi has encrypted direct flights between continents, Southeast Asia, Japan and South Korea, on the other hand, it has opened several important international routes, including Helsinki, Rome, Moscow, Sydney, etc. So far, the international routes have reached 53 cities in 29 countries, extending from Central Asia to Europe, Africa and South Asia. Europe and Australia have direct access. International aviation has built 64 international passenger and cargo routes connected by the Silk Road and the five continents, with a 32% increase in freight.
volume.

Secondly, the "meter" shaped land transportation network of National Road, general railway, expressway and high-speed railway has been initially formed, and the status of land hub provinces has been continuously highlighted. By the end of 2018, the total mileage of Shaanxi Expressway has reached 5475 kilometers, ranking the first in China. With the opening of Baolan high-speed railway and Xicheng high-speed railway, the construction of "meter" shaped high-speed railway network has been continuously promoted. In addition, in 2019, as the largest inland port of China, Xi'an land port, relying on the "Chang'an" CHINA RAILWAY Express, Jixi, bengxi, Xiangxi, XuXi and other new lines continue to open, making its radiation capacity through Europe and Asia continue to increase. The operating lines have reached 11, and the trains have reached 1235, 6.37 times of that in 2017, basically realizing the main situation in Central Asia and Europe all sources of goods are covered.

2.3 To have introduced and cultivated a number of logistics industry projects

First of all, the Shaanxi government has focused on establishing a liaison mechanism with the official economic and trade authorities of the countries along the line, so as to lay a good foundation for the introduction of industrial projects. In recent years, the government has built a good platform for Shaanxi investment negotiation and investment attraction by creating some high-end characteristic brand exhibitions, for example, Silk Road International Expo, Yangling Agricultural Hi-Tech Fair, etc., innovate and continue to hold some high-end forums, such as Eurasian Economic Forum, China (Shaanxi) Free Trade Zone Development Forum, etc., and focus on launching some large-scale investment fairs, such as Silk Road Business Cooperation (Xi'An) Round Table, Shaanxi Guangdong Hong Kong Macao Economic Cooperation Week, World Western Business Conference, Shaanxi Yangtze River Delta Economic And Trade Cooperation Key Investment Fairs and so on.

Secondly, relying on the differentiated policy support of Shaanxi Free Trade Zone and Xi'an Comprehensive Bonded Zone, as well as the port function of "Xi'an land port", the Shaanxi government has attracted a large number of enterprises, such as Alibaba, Jingdong, Tencent, Amazon's, HNA and other logistics giants, as well as the express enterprises such as Zhongtong express, Yuantong express, Shentong express, etc., that build their own northwest region transfer center is located in Shaanxi. The big data, cloud computing and other intelligent platforms of these enterprises will create a "new height" for Shaanxi to build transport and trade logistics centre. Finally, Shaanxi's top priority is to speed up the cultivation of local logistics demonstration enterprises. On the one hand, according to the professional logistics network, it has cultivated logistics demonstration enterprises such as Xi'an ZhongChu Logistics Co., Ltd., Shaanxi Bulky Transportation Co., Ltd., Xi'an Best logistics center, etc. On the one hand, it supports a group of powerful logistics enterprises to establish enterprise groups through source integration and reorganization. At present, there are more than 70 A-level logistics enterprises in Shaanxi, providing the most direct support and services for other industries.

2.4 The function of international transport and trade logistics centre is improving day by day

Since the establishment of Shaanxi Free Trade Zone, on the basis of benchmarking Shanghai Free Trade Zone, the first 18 innovative achievements of trade system in Shaanxi have been successfully replicated and promoted in the whole province, especially the "new mode of railway transport manifest merging". Because it greatly saves customs clearance time, reduces customs clearance costs and improves customs clearance efficiency, it has been approved by the State Council "Notice on the replication and promotion of the fourth batch of pilot reform experience in the pilot free trade zone" clearly requires the replication and promotion nationwide. At present, through the evaluation of the third-party think tanks, there are still 32 other system innovation achievements to be promoted and copied to the whole country. Such innovation will further improve the international freight mode of "charter flight" in Shaanxi shipping. In addition, in terms of land transportation, it will strengthen departmental cooperation with Yunnan border port, Xinjiang Horgos, Alashankou border port, Inner Mongolia Erlianhot, Manzhouli and countries and regions along the silk road. In terms of maritime transport, we will further improve the direct release mechanism with Guangxi border port, Tianjin
port, Qingdao port and Lianyungang. It has initially formed an international transportation and trade logistics hub and a comprehensive layout of large channels integrating bonded logistics, transit logistics, logistics information and logistics finance. The functions of the international transport and trade logistics centre are gradually improving.

3. Difficulties in the development of Shaanxi transport and trade logistics

As a whole, the development of Commerce and logistics in Shaanxi has been fruitful, but there are still some objective facts which limit its further development, and there is still a big gap with the location and requirements of the international transport and trade logistics centre. It mainly shows as the following:

3.1 The difference rate of logistics is still high

Whether the logistics supply can adapt to the development of logistics demand is the key to the coordination of regional logistics system. This coordination is reflected by the logistics difference (absolute value) or the logistics difference rate (relative value). That is: (1) actual logistics demand = logistics demand × demand effective coefficient; (2) effective logistics supply = logistics supply × supply effective coefficient; (3) logistics difference = actual demand - effective supply × supply conversion coefficient; (4) logistics difference rate = (logistics actual demand - logistics effective supply) ÷ logistics actual demand; the more the difference indicates the stronger the adaptability and coordination between the two, the weaker the mutual obstruction. With reference to the basic data of China Logistics Yearbook 2013-2017, the specific calculation data and process of logistics difference and logistics difference rate in Shaanxi Province are shown in Table 1, and the results are shown in Figure 1.

Table 1 calculation data and process of 2014-2018 logistics difference and logistics difference rate in Shaanxi

<table>
<thead>
<tr>
<th>year</th>
<th>logistics demand (billion yuan)</th>
<th>demand effective coefficient (dimensionless)</th>
<th>actual logistics demand (billion yuan)</th>
<th>logistics supply (ten thousand tons)</th>
<th>supply effective coefficient (dimensionless)</th>
<th>effective logistics supply (ten thousand tons)</th>
<th>supply effective coefficient (billion yuan/ten thousand tons)</th>
<th>logistics difference (billion yuan)</th>
<th>logistics difference rate (dimensionless)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>5918.71</td>
<td>0.83</td>
<td>4912.53</td>
<td>142371.91</td>
<td>0.91</td>
<td>129558.44</td>
<td>0.031</td>
<td>896.21</td>
<td>0.182</td>
</tr>
<tr>
<td>2015</td>
<td>6578.14</td>
<td>0.83</td>
<td>5459.86</td>
<td>132403.33</td>
<td>0.91</td>
<td>120487.03</td>
<td>0.031</td>
<td>1724.76</td>
<td>0.316</td>
</tr>
<tr>
<td>2016</td>
<td>7367.57</td>
<td>0.83</td>
<td>6115.08</td>
<td>164125.37</td>
<td>0.91</td>
<td>149354.09</td>
<td>0.031</td>
<td>1485.10</td>
<td>0.243</td>
</tr>
<tr>
<td>2017</td>
<td>8236.37</td>
<td>0.83</td>
<td>6836.19</td>
<td>163452.45</td>
<td>0.91</td>
<td>148741.73</td>
<td>0.031</td>
<td>2225.19</td>
<td>0.326</td>
</tr>
<tr>
<td>2018</td>
<td>8938.27</td>
<td>0.83</td>
<td>7418.76</td>
<td>173586.50</td>
<td>0.91</td>
<td>157963.72</td>
<td>0.031</td>
<td>2521.88</td>
<td>0.340</td>
</tr>
</tbody>
</table>

Figure 4 logistics difference and logistics difference rate of Shaanxi in 2014-2018
As can be seen from Figure 4, the logistics difference in Shaanxi is still increasing year by year, and the difference rate is also on the rise. It shows that although Shaanxi's logistics supply and demand are growing, the growth rate of logistics supply does not catch up with or exceed the growth rate of logistics demand, and the logistics supply is still insufficient. Therefore, the supply side reform of Shaanxi logistics is imperative.①

3.2 Compared with the logistics node cities in the western region, logistics lacks overall competitiveness

According to Zong Huiming (2017) evaluation of logistics competitiveness of logistics node cities in Western China, the evaluation index system of urban logistics competitiveness is constructed from five aspects: logistics information technology level, economic level of logistics development region, social consumption capacity, logistics talent level and development basis of logistics industry. Using the method of cluster analysis, this paper makes an empirical study on the logistics competitiveness of 12 provincial capitals in the western region. The results show that the logistics industry of Chongqing is the most competitive, which is ahead of other cities in five aspects; the logistics competitiveness of Chengdu is the second in the middle and upper reaches, its economic development level is good, and the consumption level of residents is high. In order to meet the increasing logistics demand, its transportation facilities are constantly improving, and the level of logistics informatization is also constantly improving; The logistics competitiveness of these three cities (Xi'an, Kunming, Nanning) is general with good economic development level and large demand for logistics, but the economic volume is relatively small, the transportation facilities need to be further improved, and the level of urban informatization is relatively low; the logistics competitiveness of Lanzhou, Hohhot, Urumqi, Guiyang, Yinchuan, Xining and Lhasa are the weakest.

Table 2  2017 cluster analysis of logistics development level of logistics node cities in Western China

<table>
<thead>
<tr>
<th>Category</th>
<th>City</th>
</tr>
</thead>
<tbody>
<tr>
<td>strongest</td>
<td>Chongqing</td>
</tr>
<tr>
<td>strong</td>
<td>Chengdu</td>
</tr>
<tr>
<td>general</td>
<td>Xi'an, Kunming, Nanning</td>
</tr>
<tr>
<td>weak</td>
<td>Lanzhou, Hohhot, Urumqi, Guiyang, Yinchuan, Xining, Lhasa</td>
</tr>
</tbody>
</table>

3.3 Limited application of logistics information technology

With the extensive application of modern information technology such as Internet, big data, cloud computing, Internet of things and artificial intelligence, the traditional logistics management concept and operation mode have been completely changed, providing impetus for the development of modern logistics. However, due to Shaanxi's consistent "wake up early and get up late", the development of the logistics industry is slower than the surrounding provinces and cities. The construction of the government's public information platform based on intelligent logistics has just started, which has been far behind by Chengdu and Chongqing, especially Chongqing's public information platform of intelligent logistics has been selected as the first batch of pilot enterprises of backbone logistics information platform in China. The logistics standardization, information

① Explain:
1. The basic data is from 2014-2018 China logistics yearbook, in which the logistics demand is represented by the total retail sales of consumer goods and the logistics supply is represented by the freight volume;
2. It is difficult to get the parameter values of demand effective coefficient and supply effective coefficient. Therefore, they are obtained by reference to Tianqiao (2016) research on the influence of logistics park construction based on system dynamics model on urban economic development, adopting the method of effective parameter estimation for reasonable estimation, which are 0.83 and 0.91 respectively;
3. The supply conversion coefficient is used to unify the dimensions of logistics demand and supply. It is based on the data from 2014 to 2018. ① through the formula: actual demand of logistics / effective supply of logistics, calculate the coefficients, which are 0.0313, 0.0379, 0.0453, 0.0409 and 0.0459 respectively from 2014 to 2018. ② calculate the arithmetic mean of the coefficients as the supply conversion coefficient.
technology, Internet of things promotion and other work of enterprises are also very slow. At present, except for a small number of large enterprises, many small and medium-sized commercial logistics enterprises' backward manual and mechanical processing methods have seriously affected their operation service level and efficiency, resulting in their relatively low competitiveness and hindering the leapfrog development of Shaanxi commercial logistics industry.

3.4 Lack of support and drive of modern large-scale supply chain service-oriented logistics enterprises

In recent years, the logistics enterprises in Shaanxi Province continue to increase and expand, but the logistics enterprises with a certain scale are rare. According to the list of A-level logistics enterprises released by China Federation of logistics and purchasing in 2018, although there are 78 A-level logistics enterprises in Shaanxi at present, there are only 75 A-level logistics enterprises, most of which are small in scale and have single logistics service function, and only stay in the basic logistics function service level of traditional transportation and warehouse storage. The integration and networking degree of logistics operation is relatively low, and they lack the ability to control over markets and resources.

4. Strategies for further promotion of Shaanxi transport and trade logistics centre

4.1 To effectively improve logistics supply capacity

Aiming at the problem of high difference rate of logistics in Shaanxi, we should expand the total demand of logistics moderately, strengthen the supply side structural reform of logistics, open up and optimize the logistics circulation channels, improve the level of logistics information, make up for the shortcomings, and improve the quality and efficiency of Shaanxi logistics supply system, so as to achieve a better match between supply and demand.

Firstly, the government encourages logistics enterprises to pay attention to R & D and innovation of logistics related technologies, encourages more logistics enterprises to build intelligent logistics channel network, and promotes the application practices of innovative technologies. In this way, intelligent logistics and knowledge logistics are used to guide the development of new logistics industry.

Secondly, enterprises should attach equal importance to education, training and introduction, and improve business and services to meet the intellectual needs of sustainable logistics operation of the Silk Road Economic Belt in the future. Through technology and talents, we can bring more new ideas and new management ideas to the enterprise, so as to improve the logistics supply capacity and logistics operation efficiency, and constantly meet the growing logistics demand. Third, we will accelerate the integration and optimization of special customs supervision areas, speed up the replication and promotion of mature and innovative system and measures of free trade areas and special customs supervision areas, and provide a better logistics environment for international trade.

4.2 To promote the construction of international logistics infrastructure

Firstly, we need to improve the service capacity of existing ports, expand the radiation function of existing ports and industries. In Xi'an Xianyang Airport, These five designated ports have been approved for construction, they are designated ports of import and export ports for ice fresh aquatic products, imported edible aquatic animals and imported fruits, designated ports of imported meat, designated ports of imported plant seedlings in Yangling Demonstration Area, designated ports for imported grain and imported meat and designated ports for vehicle import of Xi'an railway. We must speed up their construction to improve the port functions of Shaanxi Province, carry out the risk analysis of big data operation at the port, improve the intelligent level of the port logistics chain, optimize the comprehensive service environment at the port, and meet the customs clearance needs of various imported goods of import enterprises.
Secondly, we need to promote the construction of comprehensive bonded areas as a whole. As a special open area, the comprehensive free trade zone should be arranged as a whole. On the one hand, it should actively promote the construction of the approved comprehensive free trade zone of Xi'an Aviation base. On the other hand, it should speed up the application of Baoji comprehensive free trade zone and Yangling comprehensive free trade zone, which will greatly strengthen the layout of Shaanxi's material flow infrastructure network.

Finally, we need further improve the layout of air ports and railway ports. In terms of air ports, it is planned to promote the opening of air ports of Yan'an and Hanzhong airports step by step, truly form the layout of air ports with Xi'an Xianyang International Airport as the center and the northern and southern wings of Shaanxi as the development, further strengthen the role of air hubs, and expand the scope of international and domestic radiation. In terms of railway port construction, in addition to the construction of Xi'an port, we should further increase the railway foreign trade cargo loading and unloading points in areas other than Baoji, Weinan, Yulin and Yan'an, so as to make the layout of railway port more perfect.

4.3 To construct CHINA RAILWAY Express assembly center

As mentioned earlier, at present, Xi'an has opened 11 lines CHINA RAILWAY Express, and the number of annual operations has exceeded 1000. which has provided strong transportation support for the development of Shaanxi's "three economies" and serving the "Belt and Road" construction of the state. In order to make the bright spot of CHINA RAILWAY Express more abundant, we should rely on Xi'an land port new station as an international train organization base, build a CHINA RAILWAY Express assembly center, and further promote "connectivity" and economic and trade cooperation between countries along the line. Specifically speaking, on the one hand, on the basis of stable operation of Xi'an-central Asia and Europe international freight trains, we are more active in strengthening cooperation with more international railway hub cities, constantly enriching the train operation lines, continuously improving the operation efficiency and gradually reducing the cost, so as to attract domestic and world-wide goods to gather here. On the other hand, on the basis of the "Belt and Road" CHINA RAILWAY Express alliance, we will further strengthen cooperation with the relevant provinces and cities, configure the international freight dispatching organization and dispatch service functions, integrate the domestic class resources and complement each other to create a central Europe and Shaanxi rally Center to attract more international goods to be distributed and transferred in China, so as to achieve more shifts in the CHINA RAILWAY Express.

4.4 To improve the service level of intelligence; commerce and logistics

We will improve the construction of intelligence infrastructure platforms such as cloud computing and the Internet, accelerate the application of intelligence business logistics services, promote the construction of intelligence business logistics centers, and support the construction of information transmission channels and information hub centers in the core areas. First, we will vigorously promote the construction of intelligence infrastructure platforms. Relying on the cloud computing formed by the launched "n + 1" cloud project and the big data industrial base platform of Fengxi new city, Xixian new area, the company focuses on big data processing and business logistics service industry chain. We will also support enterprises to provide Internet application services in the field of business logistics through the construction of Internet of things application infrastructure and service platform. For example, in the context of supply side reform, enterprises are encouraged to develop industrial chain integration service platform and engage in large-scale logistics integration service of freight forwarder mode, so as to achieve corresponding cost reduction and efficiency increase for both sides of supply and demand.

Secondly, we will promote the application of intelligent logistics services. Focus on promoting the application of cloud computing, Internet of things, Beidou navigation and geographic information technology in logistics intelligence, we accelerate the construction of Shaanxi E-port, build public logistics information platform, promote enterprise logistics informatization, strengthen data opening, give consideration to information push, gradually optimize the business logistics service process, and
improve the business logistics service standardization system.

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