Research on the Industrial Upgrading of China’s Bohai Economic Rim

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Abstract. The global economic integration has continuously promoted the development of the region and pushed the upgrading of the regional industries forward. This paper analyzes the present situation of the industrial development of China’s Bohai Economic Rim, summarizes the main obstacles of its current industrial upgrading, and puts forward some countermeasures to promote the industrial upgrading of the Bohai Economic Rim.

1. Introduction

The Bohai Economic Rim in China refers to the vast economic region that surrounds the coastal areas of the Bohai Sea. The economic cooperation and horizontal integration among regions, and their complementary advantages open up a vast space for the development of the Bohai Economic Rim. However, there are also industry convergence, unbalanced development and other issues in this region. With the continuous development of China's economy, the Bohai Economic Rim also urgently needs to achieve industrial restructuring and upgrading.

2. The Present Situation of Industrial Development in China’s Bohai Economic Rim

China’s Bohai Economic Rim is the most important export-oriented, multi-functional and dense urban agglomeration in the north of China. At present, it has played a role of agglomeration, radiation, service and promotion in the national and regional economies, and has become the engine of the economic development in North China.

The Industrial Distribution of the Bohai Economic Rim. In terms of industrial distribution, the Bohai Economic Rim has formed three industrial belts of equal competition and mutual reliance in Beijing, Tianjin, Liaodong Peninsula and Shandong Peninsula. And computers, integrated circuits, intelligent robots, new materials, aerospace and other high value-added industries are formed at present.

2.1 The Industrial Structure of the Bohai Economic Rim.

The Industrial System Is Complete and the Industrialization Degree Is Relatively High. In general, the share of the primary industry is relatively low, with the secondary industry accounting for a higher proportion. In addition, in terms of industrial development, the Bohai Economic Rim has now formed a relatively complete industrial system and has fostered and developed a number of advantageous industries. Port economy, coal, petrochemical, steel, shipbuilding, processing and manufacturing and other industries have competitive advantages. On the development of industry, the degree of industrialization in the Bohai Economic Rim has been quite high. However, the advanced manufacturing industries in Beijing and Tianjin have obvious advantages, while the proportion of traditional industries in Hebei, Liaoning and Shandong is still relatively large.

The High-tech Industries Have Developed Rapidly. The advantages of technological endowments have brought about the rapid development of high-tech industries, facilitated the adjustment of industrial structure and promoted the economic growth in the Bohai Economic Rim. In the field of new technology industry, Beijing has the largest electronic information product trading and R&D base in China. It has powerful scientific research strength, strong innovation and R&D
capability in IT industry, and has comparative advantages in developing high-end products. Tianjin is the country's largest production bases of electronic communication equipment, liquid crystal display and so on. Shandong Province has become an important production base of home appliance and electronic production in the country. The Bohai Economic Rim has now formed such advantageous industries as computers, intelligent robots, integrated circuits, new materials, aerospace and so on.

The Tertiary Industry Develops Rapidly and Tends to Dominate. The added value of the tertiary industry in the provinces and municipalities of the Bohai Economic Rim has been increasing, and the rate of increase has continued rising. The proportion of the tertiary industry in Beijing is high and dominant. The proportions of tertiary industries in Tianjin and Liaoning have also surpassed their secondary industries. In recent years, the economic growth and industrial structure changes in the Bohai Economic Rim are driven by the growth of the secondary industry and tertiary industry. However, judging from the proportion of the gross output value of the tertiary industry, the leading industries in the Bohai Economic Rim are bound to become the tertiary industry soon.

3. The Industrial Upgrading Obstacles of China’s Bohai Economic Rim

Compared with other regions in the country, the Bohai Economic Rim is rich in mineral resources. Located in the Northeast Asia logistics center, the transportation is convenient and the port is dense, which is beneficial to the economic development. However, the links in the Bohai Economic Rim are relatively loose, reasonable division of labor and cooperation are lack, the convergence of industrial structure and the coexistence of industrial chain fracture will all hinder the industrial upgrading in this area.

The Gap of the Industrial Development Level Among Provinces and Municipalities Is Large. The gap in GDP among provinces and municipalities in the Bohai Economic Rim is not obvious, but the per capita GDP varies greatly. Moreover, compared with Beijing and Tianjin, the other three provinces do not have the advantages of resources, technology and talent gathering. Therefore, it is difficult to increase production efficiency and thus achieve industrial upgrading only by their own development.

The Isomorphism Degree of Traditional Industries in the Bohai Economic Rim Is Great, and the Factors Cooperation Is Insufficient. Due to geographical distribution and other reasons, the three sub-circles of Beijing-Tianjin-Hebei, Liaodong Peninsula and Shandong Peninsula in the Bohai Economic Rim are basically self-contained and self-developing. Therefore, the industrial structure of the three sub-circles has strong isomorphism. In terms of pillar industries, most provinces and cities have the traditional industries such as iron and steel, chemical industries, automobile and so on with strong industrial isomorphism. In addition, Hebei, Liaoning and Shandong benefited little from industrial cooperation in the Bohai Economic Rim. Beijing-Tianjin and other three provinces lacked deep level industrial cooperation, and most are shallow vertical division and material cooperation. Moreover, compared with Beijing and Tianjin, Hebei, Liaoning and Shandong have a long way to go in science, technology and talent. The industrial gap is very large, and the cooperation of the factors is insufficient.

The Industrial Value Chains in the Region Is Incomplete and the Synergetic Division of Labor Is Difficult. Industrial value chains link related cities. Where there are industrial chains, the regional economy can be linked. As far as the Bohai Economic Rim is concerned, due to the independence of the three sub-circles, there are not obvious industrial chains between Beijing, Tianjin, Shandong Peninsula and Liaodong Peninsula. The industrial chains of only a few products are also very thin. Although each province and municipality has its own industrial chains, the insufficient cooperation among the regions has not formed the holistic resultant force, resources cannot be effectively allocated in the entire region, the market scale of products is difficult to expand and the market is severely segmented, so that there are no effectively linked industrial chains and higher industry aggregation degree in the Bohai Economic Rim, which is not conducive to long-term development.
In addition, the dominant products in Beijing and Tianjin are mainly concentrated in the field of advanced technology, while Hebei, Liaoning and Shandong lack high-end manufacturing products. Their products are mostly primary products, with short industrial chains, low added value and excessive resource consumption. Even in the production field of high-end products, such as mobile communication devices and computers, they are basically only engaged in the production of simple components and assembly of products. Therefore, there are great differences in the product structure and less industrial relations between Beijing-Tianjin and other three provinces. It is difficult to realize cooperative division of labor within a short period of time.

Uneven Distribution of Resources and Lack of Coordination Among Local Governments. The level of economic development has a direct impact on the allocation of resources in all provinces and municipalities. At present, talent, technology and capital tend to flow to Beijing and Tianjin, and the other provinces and cities are difficult to achieve the improvement of their production factors. Besides, the insufficient of coordination among local governments makes it difficult for Hebei, Liaoning and Shandong to obtain effective financial and production technology support. The shortcomings in regional development are hard to make up for, which brings difficulties to industrial transformation and upgrading.

4. The Countermeasures of Industrial Upgrading of China’s Bohai Economic Rim

Strengthening Industrial Division of Labor and Constructing Industrial Chains in the Bohai Economic Rim. Provinces and municipalities in the Bohai Economic Rim should rationally divide their work and develop their respective leading industries according to their respective resource endowments and industrial advantages, form reasonable industrial chains and promote the overall coordinated development of the Bohai Economic Rim. For example, Beijing should give full play to the talent, technology, information and other advantages and implement the strategy of "headquarters economy" to develop knowledge intensive industries of higher level; Tianjin could make use of its port advantages and manufacturing base to focus on the development of high-end manufacturing, international logistics, international shipping, emerging energy and biopharmaceutical industries. The heavy industries in Liaoning need to be upgraded and it should focus on the development of the equipment manufacturing industry and the important raw material industries, pay attention to deep and fine processing of products and establish modern service industries to support the development of manufacturing industries; Hebei Province should strengthen the development of ecological agriculture, undertake and integrate the industries transferred from Beijing and Tianjin, form industrial agglomeration, improve quality and extend the industrial chains; Shandong should make industries transform and upgrade to the ecological and green direction. At present, the industrial chains that can be constructed in the Bohai Economic Rim include logistics industry chains, high-end manufacturing industry chains, equipment manufacturing industry chains, ecological agriculture industry chains and so on.

Promoting the Development of the Modern Service Industries in the Bohai Economic Rim. With the development of society, service industries have become necessary fields for regional industry docking and upgrading. We need to actively develop service industries and make modern service industries important driving force for economic integration and development in the Bohai Economic Rim. The current direction of development should rely on the financial system innovation, accelerating the development of electronic information industry, integrated transport network of highways, railways, aviation, shipping, pipelines and so on, with the purpose of creating modern logistics centers and producer service centers while accelerating the development of cultural services and tourism services.

Reforming System and Mechanism, Establishing a Win-Win Concept, Creating a Cooperative Atmosphere and Sharing Regional Innovation Resources. To promote the industrial linkage of the Bohai Economic Rim and realize its rise, we must further eliminate various system and mechanism that affect or even impede the process of industrial linkage, and establish system and
mechanism that promote communication and mutual exchange of needed products. We must further transform the functions of government, promote the building of service-oriented government, improve the investment environment, eliminate the regional departmentalism, and create a cooperation atmosphere from private sectors to governments.

At the same time, we should also innovate and integrate human resources, financial resources and information resources, establish an open service system and build a regional innovation resources and credit information sharing platform, so as to better promote the regional industrial upgrading.

5. Summary

China's Bohai Economic Rim has its own advantages in terms of industrial base and resource endowments. However, due to the long-term influence of such factors as geography, administration, industries, etc., the region lacks substantive communication and internal cooperation. As one of the most important manufacturing industrial bases in China, all provinces and municipalities in the Bohai Economic Rim should keep in touch with each other and strengthen the division of labor and cooperation in industries, and form the links in the industrial chains together. The government should establish a unified regional industrial policy to create a higher scale economic effect and promote the overall economic development of the region.

References