

# Regional Differences and Policy Orientation of the Agglomeration of Productive Services in Prefecture-level Cities in Jilin Province

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**Abstract.** Analyze the current status of agglomeration of productive service industries in prefecture-level cities in Jilin Province, identify the driving factors and driving mechanisms, study the development trend of agglomeration of productive service industries at home and abroad, and point out the development direction and model of agglomeration of productive service industries in prefecture-level cities in Jilin Province, Put forward policy recommendations to promote the concentration and development of productive service industries in the prefecture-level cities in Jilin Province.

**KEYWORDS:** productive services, driving factors, policy recommendations., Prefecture-level cities in Jilin Province

## 1. Interregional differences in the concentration of productive service industries in prefecture-level cities in Jilin Province

### 1.1 Industrial agglomeration

The related measures of industrial agglomeration show that the comparative advantage of prefecture-level cities in Jilin Province has seen a significant decline in the comparative advantage, and the development of productive services has lagged, but the degree of synergy between the two industries has increased year by year. In terms of geographical distribution, the concentration of productive service industries in regional central cities (such as Changchun City) has increased significantly because the agglomeration development of urban productive service industries is highly dependent on the level of urbanization; the trickle-down effect makes the surrounding cities and counties in regional center cities The concentration level of manufacturing industry is on the rise, that is, the manufacturing industry is developing towards the periphery of central cities. The synergy agglomeration of manufacturing and productive service industries in all cities has increased. Cities with high synergy agglomerations are cities with a higher total GDP (such as

Changchun, Jilin and Songyuan). The reason is urban productivity The difference in the degree of agglomeration of service industries makes the level of synergistic agglomeration of the two industries in different cities quite different. This shows that the development of urban productive service industry can promote the synergy of manufacturing and productive service industry.

### ***1.2 Regional innovation***

The measurement of the level of regional innovation coordination shows that the coordination degree of the input, output, and benefit subsystems in the regional innovation system varies greatly among cities at different levels. The coupling degree and coordination level of the central city and other urban innovation systems are on the rise, but only a small number of cities have achieved an upward leap in development types, which indicates that the type of coupling coordination is mainly low-level coordination. Medium and highly coordinated cities only appear in Changchun, showing a high correlation between urban innovation and economic development. The benefits presented by most urban innovation subsystems are greater than the input and output relations. This is the reason for the large differences in the level of coupling and coordination between the innovation systems of various cities, which indicates that the old industrial base cities with different economic volumes are innovating cities. In the construction, it is necessary to increase innovation input and also pay attention to improving the transformation of innovation input into innovation output and efficiency. In addition, because the design of the indicator system is limited by data acquisition, other indicators such as the proportion of enterprises in R & D institutions and the contribution rate of scientific and technological progress have not been included in the indicator system, which may affect the evaluation results and can be improved in future research.

### ***1.3 Regional innovation Coordination and coordination of industrial agglomeration and regional innovation***

The coupling and coordination model is used to analyze the coordinated development of industrial agglomeration and regional innovation. During the study period, the coordinated development trend of industrial agglomeration and regional innovation in the nine cities as a whole was better. Changchun and Jilin in the old industrial base cities had a high-level and high-level coupling and coordination state, which showed the agglomeration and synergy of the two industries in the city. High correlation between innovative systems. The higher the degree of urban industry specialization, the stronger the level of regional innovation, indicating that there is a strong dynamic feedback relationship between industrial agglomeration and regional innovation and is constantly strengthening. The degree of coupling and coordination among cities in the study area has been improved to some extent, but due to the large differences in the level of industrial agglomeration between the two cities, the gap between the input, output, and efficiency of the innovation system has led to urban industrial agglomeration and regional innovation. The level of coupling and

coordination is different, and the increase in industrial agglomeration and the coordinated development of regional innovation systems jointly promote the transition of the type of coupling and coordination. In addition, the gap between the degree of coupling and coordination of industrial agglomeration and regional innovation among cities in the study area has gradually narrowed, but the magnitude is small.

## **2. Driving factors of agglomeration of productive service industries in prefecture-level cities in Jilin Province**

### ***2.1 Cyclic cumulative effect. At present, urban productive services are concentrated in the central cities of a region or city group***

This is mainly due to the external economics of the central city, which has led to the formation of interdependent non-transaction enterprises in the urban productive service industry. Large-scale enterprise groups in the productive service industry often choose the productive service industry clusters in central cities during the nationwide and global operation process, and gain market competitive advantages through knowledge spillovers and technological innovation in interdependent clusters. Other related supporting enterprises in the agglomeration area gather in the central city following the target customers and leading companies in the industry. Changchun and Jilin in the prefecture-level cities of Jilin Province are the central cities of the urban agglomeration. In terms of urban infrastructure, capital market financing channels, preferential policies of local governments, talent reserves of universities and research institutions, and the level of internationalization of cities It has advantages and is the main gathering area for the development of productive service industry in Jilin Province.

### ***2.2 Manufacturing transfer and agglomeration. Except for Changchun City's manufacturing location quotients, which remain relatively stable, other prefecture-level manufacturing location quotients have shown a relative downward trend***

As the provincial capital, Changchun City is committed to developing the headquarters economy. Urban manufacturing enterprises are gradually shifting to surrounding areas. However, the city's radiating role is not obvious and it is still in the development stage of absorbing high-end industries. The productive service industry and manufacturing industry of the Hachang urban agglomeration form classified clusters in the two provincial capital cities and surrounding cities, respectively. At the same time, a coordinated agglomeration of the two industries within the Hachang urban agglomeration also strengthens the two provincial capital cities. The supportive effect of the multi-center cluster development of productive services on the development of the manufacturing industry in the Halong urban agglomeration.

### ***2.3 Investment in scientific research institutions and science education***

In the process of urban productive service industry development, the acquisition and dissemination of new knowledge is an important condition driving the agglomeration and development of urban productive service industry. The improvement of the innovation capacity of urban agglomerations and central cities requires increased government investment in scientific research and education. These R & D and education inputs will accelerate the production of knowledge and the cultivation of specialized talents. Under the role of knowledge production and talent gathering, The agglomeration development process of urban productive service industry will also realize increasing returns to scale.

### ***2.4 Information technology and market environment***

The development of modern Internet and other information technologies has played a positive role in promoting the agglomeration and development of productive services. The development of modern information technology will also reduce trade costs, which is conducive to driving the spatial agglomeration of urban productive services. In the market environment for the development of urban productive service industries, the establishment of a normative urban industry development and a fair and open market system will also promote the investment of various types of capital into productive service industries. The se of the market's basic resources for resource allocation is to promote urban productive services An important prerequisite for industry development.

## **3. Policy options for agglomeration of productive services in prefecture-level cities in Jilin Province**

In the future, the economic development of prefecture-level cities in Jilin Province will transform from speed expansion to quality improvement. This requires vigorous development of productive service industry agglomeration areas, relying on the advantages of large city production factors and the advantages of small and medium-sized manufacturing industries. The core promotes the development of surrounding small and medium-sized cities, promotes the optimal allocation of production resource resources in large cities and small and medium-sized cities, and promotes the overall transformation of cities into new green and low-carbon cities.

### ***3.1 Optimize the technical route of industrialization and change the mode of economic development***

The economic development of prefecture-level cities in Jilin Province should regard productive services as a strategic focus of industrial upgrading and structural adjustment. The core task is to promote the positive interaction between new

industrialization and urbanization, and gradually move from traditional industrialization to rely on material resource consumption to vigorously. The development of productive services depends on the transformation of knowledge and technology. On the one hand, in modern high-tech zones such as Changchun Jingyue, Changchun New District, and Changchun Automobile Industry Development Zone, modern high-end service industry clusters and comprehensive reform experimental zones will be established. By establishing a good market environment, high-end productive service companies are encouraged to follow market mechanisms Construct specialized production service industry cluster areas, and strongly support these enterprises to implement mergers and reorganizations across regions and industries. On the other hand, other prefecture-level cities should improve the policy system for supporting the development of modern service industries with market mechanisms, strengthen the construction of infrastructure projects that are highly related to productive services, and strengthen the role of local governments in guiding the direction of investment in productive services. Support large policies, and form a system of division of labor with reasonable functions and comparative advantages.

### ***3.2 Promote market-oriented structural reforms and innovate business model development models***

The important reasons for the lagging development of productive service industries in the prefecture-level cities in Jilin Province are mainly constrained by factors such as the level of industrialization and marketization of these cities. First, the two central cities of Changchun and Jilin must accelerate the reform of state-owned enterprises in the field of productive services, and continue to improve management and innovation in accordance with market-oriented reforms, and innovate service models to enhance the competitiveness and Service capacity of regional industrial development. Second, other prefecture-level cities in Jilin Province need to improve the market system, innovate and improve the system that supports the development of modern service industries, reduce unnecessary industry regulations, and lower the market entry threshold. Third, local governments should strengthen the policy system and development environment that support the development of modern service industries in cities, such as standardizing market operations, improving trading systems, publicly supporting relevant policies for the development of industrial enterprises, and improving legal guarantees.

### ***3.3 Promote the development of industrial agglomeration and improve the urban division of labor system***

The agglomeration and development of urban productive service industry is also an inevitable trend of the development of the spatial organization structure of modern service industry. Most of the prefecture-level cities in Jilin Province are at an important stage of industrialization development. The development and upgrading of industrial enterprises will also lead to the demand for productive

services. Therefore, the development of productive service industry clusters in cities such as Changchun and Jilin is the main way to improve the sustainable development of the urban economy. The concentrated development of productive service industries in these larger cities will promote the formation of urban industrial development patterns in which the productive service industry is the industrial link. Among them, the first is to promote the development of productive service industry clusters in cities such as Changchun, Jilin and Songyuan. Second, other prefecture-level cities should promote the separation of productive services and industry by guiding industrial transfer policies.

### ***3.4 Accelerate the development of industrial integration and improve the ability of independent innovation***

Grasp the trend of industrial integration and development, accelerate the development of productive service industries in prefecture-level cities in Jilin Province, and strengthen the relationship between the two industries. The first is to accelerate the development of urban service outsourcing industries such as Changchun and Jilin, and deepen professional division of labor. The second is to accelerate the development of information technology service industries in regional central cities. Strengthen productive service companies in the region to break through geographical restrictions and accelerate the formation of a spatial organic division of labor system in urban agglomerations or metropolitan areas. The third is to increase the added value of urban productive service products and services. Give full play to the industrial linkage effect of the productive service industry in central cities in the region, realize regional economic integration and accelerate industrial upgrading through industrial division of labor within the Harbin metropolitan agglomeration and Changchun metropolitan area. The fourth is to encourage all kinds of manufacturing enterprises in the prefecture-level cities in Jilin Province to focus on service-oriented transformation and strengthen the professional advantages of manufacturing enterprises by stripping non-core businesses.

### ***3.5 Promote industrial agglomeration and promote the revitalization of the real economy***

The crowding benefit of industrial collaborative agglomeration shows that the development of collaborative agglomeration of two industries should pay more attention to the coordination of quality. The quality synergy of industrial collaborative agglomeration is the synergy of input quality and output quality of producer services. In the process of deepening industrial division and specialization, the manufacturing industry needs more and more input quality of the intermediate products of producer services, and producer services also rely more and more on the improvement of supply quality caused by the improvement of the output quality of manufacturing industry. In terms of input quality and output quality, the two industries are interdependent and mutually promoting collaborative processes. For the purpose of pursuing profit, the manufacturing industry tends to gather in the

regions where the producer services are developed to obtain the producer services agglomeration economy to enhance competitiveness; the producer services tend to gather in knowledge intensive regions such as human capital (such as big cities) to improve service quality and efficiency.

#### 4. Conclusion

The policy design ideas for promoting the real economy development of prefecture-level cities in Jilin Province by synergistic clustering of industries are: from the perspective of target synergy, the key to revitalizing the real economy is to adhere to the "determinism of the real economy" and form a relationship of positive interaction and coordinated development of the two industries; From the perspective of structural coordination, the core of revitalizing the real economy is to deepen supply-side structural reforms to resolve industrial structure imbalances and build a modern industrial system driven by innovation and efficiency. From the perspective of spatial coordination, the focus of revitalizing the real economy is to promote the full flow of factors From the aspect of quality coordination, the main task of revitalizing the real economy is to improve the quality of the coordinated supply of the two industries.

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