

# ***Research on the Development, Influencing Factors and Influencing Effects of Industrial Agglomeration in China***

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**Abstract:** Since the rapid development of Chinese society and economy, industrial agglomeration has become an important trend of structural change. In order to help enterprises see the advantages and disadvantages of industrial agglomeration, it is very important to study the causes and effects of industrial agglomeration. Therefore, this paper organizes and proposes the reasons for the agglomeration of the four major industries as well as its positive and negative effects. The research results show that political factors, environmental factors, enterprise advantages and culture, talents and consumption level are the main causes of industrial agglomeration. Moreover, the positive benefits of industrial agglomeration are the sharing of infrastructure, resources and markets and the acceleration of knowledge dissemination and technology exchange. The negative impacts are that they increase the economic risk of the agglomeration area and lead to duplication of construction and waste of resources. For these reasons, the Chinese government should weigh the positive and negative benefits of promoting industrial agglomeration. This paper proposes to explore the causes and effects of industrial agglomeration from a macroscopic perspective, which improves the lack of macroscopic analysis in this field.

**Keywords:** industrial agglomeration, influencing factors, impact effects, China, redundant construction

## **1. Introduction**

For a long time, industrial agglomeration has become a kind of business behavior blindly imitated by countless people due to the preferential industrial development or preferential commercial development strategy unique to the region. In particular, this phenomenon refers to the macro-spatial industrial aggregation in which a large number of enterprises (regardless of their size) gather in a specific region, and the same industrial aggregation phenomenon in which enterprises of the same type voluntarily gather in the same region to compete with each other.

The phenomenon is particularly acute in China. Some industrial agglomeration are encouraged or subsidized by government policies, and such agglomeration have great positive benefits for many enterprises. For example, by encouraging enterprises to settle in, the surrounding economy can be rapidly stimulated.

However, due to these advantages of industrial agglomeration, many businesses began to blindly follow the trend of gathering together in order to make profits. It is this kind of behavior that causes the same industrial agglomeration that can be seen everywhere in China at present. The phenomenon

is mainly manifested in the competition between many enterprises with the same function and similar products in the same area, such as grocery stores and gas stations. These entrepreneurs observe that others are making a lot of money in the area, and they want to get in on the action. But the end result is usually bad for both sides. Neither firm gets the expected benefits, the original firm loses some customers due to the entry of the new firm, and the new entrant does not get considerable results due to the competition with the original firm.

For enterprises in the same industrial chain, value chain and supply chain, industrial agglomeration can indeed bring powerful economic effects; However, for most homogeneous enterprises themselves, the negative impact of unprovoked agglomeration of the same industry far exceeds the benefits. For consumers, however, such agglomeration is a huge benefit. Consumers have cheaper products because of competition among businesses; And because of aggregation, consumers have more room to choose.

Therefore, it is particularly important to clarify the driving factors of industrial agglomeration, which will be conducive to exploring the similarities and differences in the economic effects of different types of industrial agglomeration, and further proposing benign agglomeration phenomena that can promote economic growth.

This paper aims to analyze the phenomenon of “industrial agglomeration” in society, providing a detailed explanation of its influencing factors and effects, and proposing relevant strategies. The objective is to offer valuable insights for the government on how to better utilize industrial agglomeration for the nation’s benefit.

## 2. Literature Review

In recent years, industrial agglomeration has become an important economic phenomenon and academic hot topic, attracting a large number of scholars to study it. Some scholars pay more attention to the impact of industrial agglomeration on the economy and industrial circle. Ma Guangqi and Xiao Ruofei [1] confirmed that regional financial industry aggregation helped regional economic growth and played a radiation effect on enterprises. Meng Jinhuan [2] empirically analyzed the moderating effect of industrial aggregation on regional logistics capacity and circulation industry. Ma Yingjuan [3] confirmed that economies of scale, knowledge spillover and aggregation effects generated by the agglomeration and development of culture and related industries play an important role in regional economic growth. Ding Jiacheng [4] confirmed that industrial aggregation through adjacent economy, scale economy and aggregation economy can improve production efficiency. Song Zhuonan [5] showed that the externality of foreign direct investment (FDI) on innovation largely depends on the intensity of industrial aggregation within a city rather than industrial diversity. Zheng Wenbo et al. [6] explored the interactive relationship between urban-rural land mobility factors and industrial aggregation. Zhang Jing [7] studied the impact of industrial aggregation on regional innovation capability.

Other scholars only focus on the agglomeration phenomenon of a certain type of industry and carry out academic research on the influencing factors. Li et al. [8] confirmed that financial agglomeration significantly promoted the level of industrial agglomeration by significantly improving the scale effect and innovation effect of enterprises. Yang Yue [9] demonstrated the interaction mechanism between human capital flow and industrial aggregation. Chen Jian and Liu Meisheng [10] confirmed that new ventures choose industrial agglomeration regions for the effect of knowledge creation, thus expanding the industrial agglomeration effect and promoting the sustainable development of industrial agglomeration. Chen Erel [11] took the innovation index as the variable and found that when the innovation threshold was higher than 7.223, the special government subsidy and Huanning planning had a positive and significant impact on the industrial aggregation of commercial circulation.

Luan Guiqin and Ma Yunlu [12] studied the analysis of the influencing factors of China's provincial financial industry agglomeration from a regional perspective.

Based on the existing literature mentioned above, this paper contributes by studying the influencing factors and effects of industrial agglomeration from a macro perspective, enriching the macro analysis in this field. It analyzes and summarizes the four factors influencing industrial agglomeration through theoretical arguments, and explores the positive and negative effects of industrial agglomeration. Based on the research findings, constructive suggestions are provided for the government to formulate industrial agglomeration policies.

### **3. Factors Influencing Industrial Agglomeration in China**

#### **3.1. Political Factors**

Political factors play a decisive role in the phenomenon of industrial agglomeration, especially in terms of government's commercial policies and import-export policies. These policies not only provide directional guidance for enterprises but also offer necessary support and facilitation for their development.

Government's commercial policies can create a stable and friendly business environment for enterprises. When the government formulates preferential policies for a certain industry or region, such as tax exemptions, land use rights, and financing support, it attracts businesses to invest and develop in those places.

Import-export policies also play a crucial role in industrial agglomeration. When local governments provide export incentives or tariff exemptions for certain products or services, as well as simplify approval processes and provide investment incentives, it further attracts foreign-funded enterprises to invest and develop in the corresponding regions.

These policies are not isolated but interconnected and complementary. A stable and friendly business environment attracts more enterprises to settle, while a series of import-export policies further enhance this attractiveness. When these policies simultaneously affect a certain region or industry, a strong agglomeration effect is formed, attracting more resources and capital to converge here, thereby promoting the rapid development of the entire region or industry.

For example, Shenzhen, the pioneer of China's reform and opening-up, has created a favorable environment for attracting foreign investment and high-tech enterprises. In the 1980s, Shenzhen was designated as a special economic zone, providing a free-market economic environment and a series of preferential policies by the government, such as tax exemptions and simplification of administrative procedures, to facilitate foreign-funded enterprises. It is under such circumstances that a large number of foreign-funded and Taiwanese-funded enterprises have settled in Shenzhen. Today, Shenzhen has become an industrial agglomeration area for high-tech enterprises in China.

#### **3.2. Environmental Factors**

Environmental factors play a crucial role in industrial agglomeration. In particular, logistics and industrial chains, as core environmental elements, have profound impacts on industrial agglomeration.

Logistics first reflects the importance of geographical location. An excellent logistics system means that goods and information can flow quickly, efficiently, and at low cost. When an area has a well-developed transportation network, port facilities, and other logistics infrastructure, it will have advantages in forming significant industrial agglomeration. This is because enterprises are inclined to choose places where they can quickly access raw materials and deliver products to the market in order to reduce production and operation costs. This convenience not only shortens the production cycle of products but also greatly improves market responsiveness.

For example, the Pearl River Delta region has a well-developed transportation network, whether it is maritime, land, or air transportation, which provides convenience for the import-export industry to gather.

Furthermore, when a place starts to attract enterprises in a certain industry, other related suppliers, distributors, and service providers will also be attracted to that place. This phenomenon forms the so-called “industrial chain.” In such an environment, every company can easily find partners, suppliers, or customers, which greatly simplifies business processes and reduces transaction costs.

Over time, the effects of logistics and industrial chains will gradually strengthen. Whenever new enterprises enter this place, they bring new skills, technologies, and resources to the local area. This complementarity further strengthens the agglomeration effect, enhancing the competitiveness of the entire region.

### 3.3. Enterprise Advantages

Technological accumulation and market scale are the two most significant advantages for enterprises, and they have profound impacts on the formation and strengthening of industrial agglomeration.

Technological accumulation represents the core competitiveness of an enterprise or a region. When an enterprise or region achieves a leading position in a certain field, it becomes the focus of other related enterprises. This is because high technological accumulation means more advanced production methods, more efficient process flows, and stronger research and development capabilities. In this case, other enterprises tend to be close to these technologically advanced enterprises or regions in order to better access and utilize these technologies. As more enterprises gather in a place, technological exchanges and collaborations become more frequent, forming a mutually reinforcing positive feedback loop that further attracts more enterprises and talents into this field.

Market scale represents the consumption potential of a region or country. A large market scale not only means greater sales opportunities but also implies more feedback and data to help enterprises adjust their products and strategies. When a place has a huge market scale, it attracts a large number of suppliers, distributors, and manufacturers to enter this market. At the same time, a large-scale market also attracts external investment and cooperation because external companies and investors are optimistic about the growth potential and long-term value of this market.

When these two advantages, technological accumulation and market scale, appear in a region simultaneously, they reinforce each other and generate multiplier effects. High-level technological accumulation provides enterprises with competitive weapons, while a huge market scale provides space for their growth. In such an environment, enterprises can not only grow and innovate faster but also find partners and market opportunities more easily. As more enterprises and capital pour in, the effect of industrial agglomeration is further strengthened.

### 3.4. Culture, Talent, and Consumer Habits

Culture represents a set of values, beliefs, and behavioral patterns that influence the geographical location, operational methods, innovative ideas, and cooperative attitudes of businesses. For example, certain regions may encourage innovation and risk-taking, while others prioritize stability and tradition. When the culture of a place aligns with the core values of a particular industry, it creates a friendly and favorable environment for businesses in that industry, attracting more companies to cluster there.

The clustering of the textile and clothing industry in Zhejiang and Jiangsu, for example, is closely related to their rich cultural background. These regions have gradually developed into centers of the textile and clothing industry in China. Zhejiang and Jiangsu have a long history of textile tradition. Techniques like Su embroidery in Jiangsu and Hangzhou silk in Zhejiang represent traditional

Chinese craftsmanship, showcasing the deep accumulation of textile techniques in these areas. The combination of this tradition with modern textile technology gives these regions a natural advantage in the clustering of the textile industry.

Talent, as a core resource of a region, plays a crucial role in the development and clustering of industries. A place with a large pool of highly skilled talent possesses relatively strong research and development capabilities, management skills, and market insights, which provide strong support for the clustering and development of industries. Moreover, when a place starts to attract top talent, it creates a positive feedback loop, enticing more talent to join and further enhancing the clustering phenomenon.

The talent advantage in Shenzhen and the Pearl River Delta region is a key prerequisite for the clustering of high-tech industries. These areas have multiple technology research and production bases, and close cooperation between universities, research institutions, and businesses. This has attracted a large number of high-quality talents, ensuring a leading talent advantage in technology innovation and research and development for this region.

Consumer habits also provide unique market opportunities for industries. Consumers in different regions may have different demands and preferences for products and services, providing businesses with differentiated market opportunities. When the consumer habits of a place align with the products or services of a particular industry, it creates tremendous potential for clustering for businesses in that industry.

#### **4. Impact Effects of Industrial Clustering in China**

Industrial clustering has undoubtedly become an important characteristic of global economic development, with profound effects in many places. Industrial clustering brings a series of positive benefits but also presents certain potential challenges.

##### **4.1. Positive Economic Effects of Industrial Clustering**

The positive benefits of industrial clustering are first reflected in economies of scale. When numerous companies concentrate in a specific region, they can share infrastructure, resources, and markets, thereby reducing the production and operational costs for individual companies. For example, a city with many high-tech companies may have a range of suppliers and manufacturers dedicated to serving these companies. These suppliers and manufacturers can achieve economies of scale by providing services to multiple companies, thereby lowering the procurement costs for individual companies.

In addition, industrial clustering can facilitate the dissemination of knowledge and the exchange of technology. In a region with concentrated industries, competition and cooperation among companies are more intense, fostering an environment that encourages technological innovation and research and development investment. For example, the technology companies in Silicon Valley frequently experience talent and knowledge flow, which contributes to the dissemination and application of new technologies.

##### **4.2. Negative Economic Effects of Industrial Clustering**

However, industrial clustering also brings a series of challenges. Firstly, when a region becomes overly dependent on a single industry, it may face greater economic risks. If that industry encounters unexpected challenges, such as a decline in market demand or technological revolution, the entire region's economy may be severely impacted. For example, some cities that were once centers of manufacturing suffered severe economic setbacks due to their overreliance on traditional manufacturing when the global manufacturing landscape changed.



The issue of duplicative construction during industrial clustering is also prominent, involving waste and misallocation of resources, which affects overall economic efficiency.

When a certain industry achieves success in a specific region, other places often try to imitate this successful experience by building similar industrial parks or facilities to attract companies. However, without sufficient market research and planning, this imitation often leads to duplicative construction. For example, after the success of a technology park in one area, neighboring regions may also establish their own technology parks. However, due to limited market capacity, these new parks may struggle to attract enough companies, resulting in the waste of a significant amount of funds and land resources.

Moreover, duplicative construction can also lead to resource misallocation. Forcing the development of a certain industry in a place without sufficient market demand or industrial foundation often results in inefficient utilization of resources. For example, a region may have unique advantages in terms of natural resources, talent, or other aspects, making it more suitable for the development of other industries. However, due to blindly pursuing the successful model of industrial clustering, these resources are invested in industries that may not be the best fit, leading to inefficient use of resources.

## 5. Conclusion

In summary, the main driving factors for industrial clustering in China include political factors, environmental factors, inherent advantages of businesses, as well as culture, talent, and consumer habits. The positive effects of industrial clustering are mainly reflected in the reduction of production and operational costs, enhanced market competitiveness, and the promotion of knowledge and technology sharing. However, at the same time, it may also lead to higher economic risks and unnecessary duplicative construction.

The implications of this conclusion are that the Chinese government should weigh the positive and negative effects when promoting industrial clustering. Policy-making should lean towards optimizing the business environment, enhancing collaboration among companies, efficiently allocating talent and resources, reducing duplicative construction, and reducing economic risks associated with industrial clustering through the establishment of insurance mechanisms. Through these measures, the government can stimulate innovation and competitiveness while ensuring stable and sustainable economic development.

However, this article lacks extensive data collection and analysis, and has not provided targeted evidence to demonstrate the impacts and effects of industrial clustering. This could be an area for future research and expansion.

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