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# Research on the Mechanism of Population Agglomeration's Role in High-Quality Economic Development in Anhui Province

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## Abstract

In the early stages of economic development, population agglomeration significantly promotes economic growth. However, with the disappearance of the demographic dividend, negative externalities begin to strengthen. Currently, the economic development in Anhui Province faces challenges, necessitating a shift in focus from pursuing speed to pursuing quality, particularly concerning sustainable development. This paper analyzes the role of population agglomeration in high-quality economic development from the perspective of the five development concepts, constructing a mechanism to understand this relationship. Targeted recommendations for formulating appropriate population control policies and deepening the upgrading of industrial structures are proposed to promote high-quality economic development.

**Keywords:** Population agglomeration; high-quality development; Anhui Province

## 1. Introduction

Population agglomeration enhances economic growth through resource concentration; however, growth based solely on quantity is unsustainable, especially as fertility rates decline and this demographic dividend diminishes. High-quality economic development encompasses five concepts: innovation, coordination, green development, openness, and

sharing. To achieve these concepts, it is essential to improve resource allocation capabilities and enhance the free flow of factors across regions. The deep application and continuous upgrading of technology play an indispensable role in promoting economic transformation and enhancing labor productivity.

## 2. Mechanisms of Population Agglomeration in High-Quality Economic Development

### 2.1 The Role of Population Agglomeration in Innovation

Population agglomeration facilitates the accumulation of high-quality talent. Such talent exhibits strong learning and innovation capabilities, significantly promoting innovative development. The gathering of skilled professionals enhances collaboration, promotes knowledge diffusion, and enables resource sharing, thereby elevating the overall regional innovation level. The competitive effect generated by population agglomeration injects robust momentum into the regional innovation environment. In this environment, high-quality talent actively engages in learning and self-improvement to maintain competitiveness, fostering a culture of innovation and vitality at the regional level.

### 2.2 The Role of Population Agglomeration in Coordination

When exploring the relationship between population agglomeration and coordination, rural-urban coordination and industrial coordination are two crucial aspects. From the perspective of rural-urban coordination, population agglomeration has, to some extent, propelled the natural flow of rural populations to urban areas, often resulting in increased income levels for farmers due to greater employment opportunities and higher wages in cities. However, this phenomenon poses potential challenges, such as labor shortages in rural areas due to excessive population movement and decreased labor productivity for low-skilled workers. Regarding industrial aspects, population agglomeration can lead to industrial clustering and structural upgrading, which improve productivity. However, once population agglomeration reaches a certain threshold, it can inhibit productivity, indicating an inverted U-shaped relationship.

### 2.3 The Role of Population Agglomeration in Green Development

The impact of population agglomeration on green development can be analyzed from two perspectives. On one hand, population agglomeration enhances resource utilization efficiency; the economies of scale allow for more effective sharing and utilization of infrastructure and public services. Concentrated pollution control and resource recycling systems can more effectively reduce pollution emissions per unit of output, reflecting the economies of scale in pollution management. On the other hand, population agglomeration significantly increases resource consumption, placing greater pressure on the natural environment. As the population expands, the demand for land, water, and

energy rises, which, if poorly managed, can lead to resource overexploitation and waste. Therefore, this relationship also exhibits an inverted U-shaped curve.

## 2.4 The Role of Population Agglomeration in Openness

Population agglomeration gathers a rich pool of labor resources in cities, reducing labor costs and significantly promoting the prosperity of processing links in export trade. However, this positive effect comes with a potential issue: it may hinder the transition of export trade from processing to higher-level general trade. Due to the labor-intensive nature of processing trade, it is particularly sensitive to changes in labor costs. As labor costs decline due to population agglomeration, the competitiveness of processing trade increases, facilitating rapid growth in the quantity and variety of export products. However, this growth model often emphasizes quantity expansion rather than quality improvement, thereby limiting the optimization of the export trade structure, which in turn suppresses export upgrading.

## 2.5 The Role of Population Agglomeration in Sharing

Population agglomeration impacts numerous aspects of social division of labor and generates expenditures related to education, healthcare, and public facilities. Additionally, while population agglomeration enhances the economic efficiency of public service facilities, it also poses challenges for their construction and maintenance costs. On one hand, densely populated areas can effectively improve the utilization efficiency of public facilities, significantly enhancing economic benefits through economies of scale and ensuring a better match between labor supply and public resources, thus boosting overall urban operational efficiency. On the other hand, the surge in population may strain critical services in healthcare, education, and transportation, leading to resource shortages and declining service quality, negatively affecting residents' quality of life and the overall satisfaction with shared benefits.

## 3. Recommendations for Promoting High-Quality Economic Development

First, it is essential to develop appropriate population control policies. To accelerate high-quality economic development in Anhui Province, strengthening infrastructure construction is crucial. By increasing talent subsidies to address concerns, a more comprehensive talent ecosystem can be constructed, stimulating innovative vitality and promoting sustainable economic prosperity. To mitigate potential issues of excessive urban population agglomeration, Anhui Province should actively plan the orderly relocation of some non-core industries to surrounding areas. This scientific and reasonable industrial layout adjustment aims to achieve balanced regional economic development.

Second, it is vital to deepen the upgrading of industrial structures. Each city should leverage its unique advantages and resource endowments to precisely position itself and drive industrial upgrades. This process aims to attract diverse talent, ensuring that labor

factors align precisely with the demands of industrial upgrading, thereby laying a solid foundation for high-quality economic development. Moreover, exploring pathways for the deep integration of services and high-information technology is crucial. By leveraging technological and model innovation, cities can comprehensively upgrade their industrial structures, driving Anhui Province's economy toward higher quality and sustainability.

## References

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