



Research Article

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A study of the correlation between agricultural economic growth and agricultural agglomeration in China

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ABSTRACT

With the continuous development of agricultural economy in our country, the concentration degree of main crops will get greater. And the improvement of agricultural agglomeration degree will also improve the specialization degree of main market-oriented crops. Although the correlation between agricultural economic growth and the agricultural agglomeration degree is a positive one, the variety of agricultural industrial concentration degree will cause differences in regional agricultural economic growth. Thus, a study of agricultural economic growth and agricultural agglomeration is of great significance to the agricultural economic growth in China.

Key words: Agricultural economy, agricultural agglomeration, main crops.

INTRODUCTION

In recent years, China's agricultural economy has developed rapidly, but agricultural growth still face many serious problems, such as the restriction of the resource environment, the pollution of ecological environment and the accelerated development of urbanization which leads to an increasing demand for agricultural products and a more competitive market. Therefore, agricultural economy should pay more efforts in guaranteeing the improvement of agricultural products so that the agricultural product structure could be optimized and a steady increase in agricultural overall quantity could be kept. The layout of agricultural product's advantageous regions should be vigorously promoted based on resource environment. The layout of agricultural advantageous regions is of great urgency, and the advantages of agricultural regions need to be fully exploited, which is very fundamental for the improvement of the concentration degree of regional agricultural products, the construction of the industrial areas for advantageous agricultural products and the promotion of the mechanization and specialization of agricultural industry. In an increasingly complex market competition, through strengthening the competitiveness of regional agriculture and effectively solving agricultural problems, the agricultural modernization and agricultural economic growth can be realized.

1. THE FEATURES OF AGRICULTURAL AGGLOMERATION CHANGES AND THEIR INFLUENCES

As a global economic phenomenon, industrial agglomeration can effectively optimize resource allocation of industrial organization. This phenomenon appeared in the service industry for the first time. With the continuous development of agricultural economy, the process of scale agriculture, agricultural industrialization and intensification is getting increasingly rapid, the world agriculture as a whole shows a developing tendency of regional agglomeration. China's agricultural products have their own specialized advantages in different regions and will efficiently exploit regional specialized advantages by applying industrial agglomeration to agricultural economy, just as the picture shows:

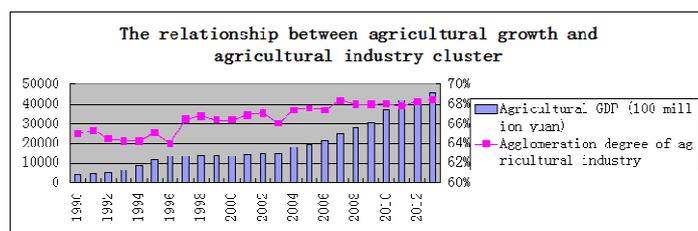


Fig. 1: The relationship between agricultural growth and agricultural industry cluster

There is a strong correlation between agricultural economic growth and the degree of agricultural industrial agglomeration in China. As the agricultural economy grows, the degree of agricultural industrial agglomeration will also get improved. And the improvement in the degree of agricultural industrial agglomeration will promote the agricultural products specialization degree, thus imposing a react on the agricultural economy itself.

2.1 The Change Features of Agricultural Industrial Cluster Groups

Agriculture is different from other industries, thus its industrial agglomeration has its own unique features. The traditional agricultural economic patterns and agricultural industrial concentration are decided by natural conditions, but as the agricultural economic patterns have undergone constant developments and renovations, the industrial agglomeration regions of agriculture are under the influences of institutional culture, policies and cultivating traditions and so forth. These influencing factors which act as the change features of agricultural industrial agglomeration degrees will realize a more rational economic positioning of regional agriculture, give a full play of the positive roles of the agricultural industrial cluster groups and promote the economic growth of agricultural regions.

2.2 The Advantages of Agricultural Agglomeration

The improvement in the degree of agricultural industrial agglomeration will boost the competitive advantages of regional agriculture in areas such as institutional environment, technological renovations, human resources and costs. The evolvement and paths of China's agricultural spatial agglomeration patterns are also influenced by them. The improvement in the degree of agricultural industrial agglomeration will quicken the specialization and diversification process of regional agricultural economy. Compared with the traditional decentralized mode of operation, the higher degree of agricultural agglomeration will realize a scale development of farmers' land, effectively integrate resources and fully exploit resources' potentials while improving the utilization effect of land resource so that integrating regional economy in a better way and accelerating the improvement of economies of scale, as the figure shows:

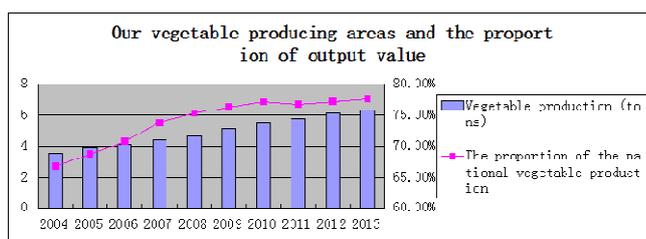


Fig.2: Our vegetable producing areas and the proportion of output value

Take the main vegetable producing areas for an example, the output in the main vegetable producing areas and its proportion of national output have efficiently improved when the available land areas remain unchanged. The main reason for this phenomenon is agricultural concentration which can promote the development of agricultural science and technology and thus raise labor productivity. Agricultural economy depends greatly on science and technology. The cluster-based agricultural developing patterns can create benign conditions for the development of agricultural science and technology. When agricultural economy gets improved, those agricultural companies will put a greater stress on the research and development of science and technology through investing more money into scientific research and strengthening links with agricultural colleges.

Agricultural economic development will create a more complicated and ferocious market competitive environment, and the inherent advantages of agricultural agglomeration will effectively improve its own competitiveness based on market sense and profit drives. While accelerating agricultural economic development, the quality of farmers will be improved since their knowledge and capability can be improved in the developing process of intensive agriculture. The communications among the staff can create more chances for learning. The deficiency of infrastructure is an

important restraining factor in the developing process of China's agriculture, but fortunately, the agricultural agglomeration will raise the level of rural public investments. For the traditional agricultural operating models, the government is the only investor for agricultural infrastructure, but with the generalization of agricultural agglomeration, agricultural companies will pay greater efforts on the infrastructure construction so that the corresponding infrastructure programs are completed and the agricultural productivity effects improved.

2.3 The Formation Process of Agricultural Concentration

Agriculture is different from other industries, and agricultural industrial agglomeration has its own distinctiveness. With the help of natural conditions and government's policy support, regional agriculture stresses upon its concentration to attract the joining of agricultural enterprises and eventually form a kind of network economy which centers agricultural bases and is aided by a large amount of companies and research departments, as the figure shows:

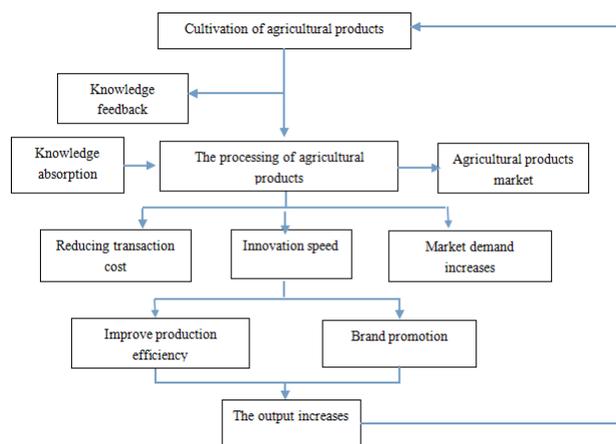


Fig.3

After agriculture realizes its concentration, the internal members will promote the feedback and absorption of agricultural knowledge through cooperation and competition, thus eventually strengthening the scientific researching power of agricultural enterprises. The cluster groups form scale economies, meanwhile, they also generate the specialized advantage of agricultural products. To a great extent, it reduces the costs in transaction links by reducing the transaction costs between farmers and companies, farmers and markets, enterprises and scientific research institutions. Likewise, the mutual communications among research institutions can efficiently improve regional agricultural technology, raise the innovation level of new agricultural products and fully satisfy the market demands for agricultural products. For the agricultural industry as a whole, the advantages of the cluster-based agricultural industry will manifest themselves continuously among market competitions. And with the increase in both output and the value of output, the cluster-based agricultural industry will form its own brand effect and thus develop a "circular and cumulative effect" by making more processing enterprises cluster around this region. Compared with agglomeration phenomena in other industries, the agricultural industry has many characteristics such as a long producing time, production chain segment, greater liabilities to be influenced by natural factors, relatively stable technology and relatively difficult scientific research and innovations and so forth. Agricultural agglomeration also needs supports from the government, farmers' cooperation organizations and scientific research institutions in areas like agricultural production, market development and science and technology.

3. THE CORRELATION BETWEEN AGRICULTURAL ECONOMIC DEVELOPMENT AND AGRICULTURAL AGGLOMERATION IN CHINA

The agricultural industry is very special; therefore, a multi-aspect analysis of the correlation between agricultural agglomeration and agricultural economic growth is necessary. The changes of the agricultural concentration degrees and agricultural economic development are presenting a wavy upward trend, different crops concentration degrees will contribute to the agricultural economy differently due to some factors such as land, climate and social reasons. But overall, the formations of agricultural agglomeration will efficiently promote the growth of agricultural industry, however, the contribution rate of agricultural agglomeration to the agricultural economic growth is not apparent, which means the effects of agricultural industrial agglomeration have not been effectively exploited. The strengthening of positive effects of agricultural industrial agglomeration calls for the enhancements of links and co-operations of all participants in agricultural industrial agglomeration and of the co-ordinations of all links in agricultural industrial agglomeration.

In order to further strengthen the agglomeration effect brought by agricultural industrial agglomeration, the

important roles of such links as information dissemination, product distribution and price formation in the circulation process of agricultural products should be efficiently exploited. And a complete agricultural market system should be established and the agricultural industrial brand effect should be built through a highly effective agricultural product sales network. More efforts should be made to protect agricultural brands and strengthen their competitiveness in market competition. Besides, within the agricultural industry, the innovating capability of scientific research should be promoted, and a co-operation between processing personnel of agricultural products and people in research department and higher education institutions should be encouraged. Through efficiently improving the scientific and technological values of agricultural products, the quality of agricultural products can be promoted wholly.

CONCLUSION

The agricultural agglomeration has advantages in institutional environment, technological innovations, human resources and costs, however, the degree of agricultural industrial agglomeration in China is relatively low with a humble contribution to the agricultural industrial economic growth. In order to strengthen the competitive power of agricultural productivity and the agricultural economic development, more efforts should be paid to enhance scientific research and development, reduce the limits of natural conditions on crops and reinforce the diversities of spatial arrangements. At the same time, the specialized level of agricultural products should be enhanced so that their market competitiveness could be improved, the operation efficiency of agricultural industrial chain is reinforced based on its own advantages and the agricultural economic growth in China will be promoted.

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