

ANALYSIS OF ADVANTAGES OF CHINA'S ECONOMIC AND TECHNOLOGICAL DEVELOPMENT ZONES IN INNOVATION

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Abstract

The economic and technological development zone has a pioneering significance in China's economic and social system reform. When the policy designer decide to set up the economic and technological development zone, they show great political wisdom and courage. However, as a new thing, whether the economic and technological development zone can develop well and what direction it should develop, the policy designers can't think about it carefully at the beginning of setting up. Only after the following policy tests, people slowly discover some rules.

The system environment of the economic and technological development zone is relatively complete, it benefits from the good environment created by the reform and opening up. The success of the economic and technological development zone has benefited not only from the good environment created by China's reform and development, but also the competitive advantage accumulated based on the innovation model. At the same time, the economic and technological development zone have accumulated rich competitive advantages in the process of self-development and self-improvement. Compared with other regional economies in China, the innovation advantages of the economic and technological development zone in terms of institutional system, fiscal autonomy, counter-feeding development, geographical location conditions, and industrial agglomeration effects are more prominent, which has brought considerable policy benefits.

The development of future economic and technological development zone needs to make breakthroughs in integrated innovation in key areas, and solve the challenges of homogenization competition, land and human resource constraints. The resources of China's model contained economic and technological development zone deserve further exploration and research.

Keywords: Innovation drive, Competitive, Geographic, Industry

1. INTRODUCTION

The economic and technological development zone is an important carrier of China's economic system reform. After more than 40 years of development, the economic and technological development zone all over the China have become an important engine to drive local economic growth, promote scientific and technological progress and innovation, accumulate resource information, and carry out multi-level exchanges at home and abroad (Zhu,Y.X, Liu,B.G, Yang,S.B., and Xue,Q.,2001,pp.38-40) . The economic and technological development zone is a distinctive example of the theory and practice system of market economy, which fully reflects the recognition and re-exploration in the process of reform, development and innovation. The success of the economic and technological development zone policy is the result of the joint action of time, land, people and not just the adoption of the preferential nature different from the ordinary

areas. The core mechanism of the policy is that the economic and technological development zone has established all-round competitive innovation advantages. This paper intends to make a preliminary induction and discuss on this.

2. METHODOLOGY

A detailed analysis of the functions of social systems should be combined with the needs they intend to meet and with other systems on which their operation depends, so as to achieve a proper elaboration of the situation. Economic and technological development zone is a policy promoted by China for its special political and economic mission. Its political, economic, administrative system, cultural and social psychological environment are quite different from the normal public policy. Therefore, we should not stick to the fixed research thinking, but should analyze this policy with the action vision and powerful analysis tools.

This paper adopts the method of on-the-spot investigation, investigates 10 economic and technological development zones in China, visits officials, entrepreneurs, researchers, journalists and residents, and inquires the economic and social development data of the economic and technological development zones in recent years in the Bureau of statistics, and then conducts system analysis and policy comparison, so as to summarize the development particularity of the economic and technological development zones.

3. RESULT

System is the integration of a series of policies, habits and management activities. It shapes the basic appearance of a certain kind of policies and determines the deep-seated legitimacy and performance of policies(Wu, J.L.,2002,pp.100-102). For the system construction of the economic and technological development zones, researchers at home and abroad have some views(Beamish, P.W., Wang, H.Y.,1989,pp.57-64), Buke put forward the concept of "super independent system" to describe the positioning of China's development zone in political and economic life, the core point of which is the economic and technological development zone has a high degree of autonomy in administrative power, financial management power, reform and development power, so that the economic and technological development zone can get rid of the efficiency fetters of the traditional administrative level, and at the same time have enough creativity in dealing with market competition(Buke,C.,2002,pp.77-80). This view enlightens us a lot. When the policy designer decide to set up the Development Zone, they show great political wisdom and courage. However, as a new thing, whether the economic and technological development zone can develop well and what direction it should develop, the policy designers can't think about it carefully at the beginning of setting up the economic and technological development zones(Wu,M.P.,2000,pp.41-42). Only after the following policy tests can confirm it. The system environment of the economic and technological development zone is relatively complete, so that its competitive advantage is gradually established and played a role.

3.1 Institutional Support Advantage

The administrative organization system of the economic and technological development zone includes three categories: the party's guiding organization (The Party Working Committee Of The Economic And Technological Development Zone), the administrative leading organization (The Management Committee Of The Economic And Technological Development Zone), and the state-owned holding business entity (such as The Investment And Development Corporation Of The Economic And Technological Development Zone). In the operation of the economic and technological development zone, the three organizations of the party, the government and the enterprise are in one body, jointly responsible, reasonably divided. The economic and technological development zone has been fully supported in the direction of major decision-making matters, the leaping pace of reform, and the high-quality allocation of management cadres (Wei,L.V.,2004,pp.1-5). In the organizational structure of the Management Committee of the Zone, multiple government departments are gathered together for office and discussion, which greatly improves the appearance and image of the government of foreign investors, while its management committee has excellent personnel allocation, complete examination, approval functions and high efficiency,it is easy to be welcomed by investors. The establishment of operational organizations in the economic and technological development zone makes the operation mode in line with the logic of market economy earlier than that of other government areas, makes the government's top-down management and equal contractual operation well combined, and makes all affairs in the economic and technological development zone maintain different administrative efficiency(Zhang,G.M, Zhao,X.B.,2012,pp9-11).

In terms of level setting, management cadres and management personnel allocation, the economic and technological development zone had adopted differentiated policies and invested in excellent personnel.

Although the area of the economic and technological development zone is small, it has been given a higher administrative level than other administrative areas. At present, the level of the national economic and technological development zone is as same as that of the general cities under the jurisdiction of the province, and some places have raised the administrative specifications of the economic and technological development zone to the Sub-Provincial level. The allocation level of cadres in the economic and technological development zone is not low either. Generally, the party and government leaders at the municipal level are also the leaders of the Party Working Committee and the Management Committee of the economic and technological development zone. Among the investment companies and scientific research institutions in the economic and technological development zone, overseas excellent talents have been introduced earlier, new personnel measures such as annual salary system, appointment system and flexible introduction mode have been implemented, forming a highland of human resources. At the same time of static system construction, the economic and technological development zone has gained a lot of incentive and independent decision-making space in finance, development and other aspects, forming a dynamic competitive advantage. At the initial stage of economic and technological development zone, the state does not have enough financial investment, and tax arrangement becomes the main incentive source. For example, according to the central government's policies, for the first batch of national economic and technological development zones approved to be set up, they enjoyed a 10-year full return and a 3-year declining return period. The return tax was used for the construction of the economic and technological development zone itself and the city where the economic and technological development zone is located. The subsequent economic and technological development zone have narrowed the scope of tax preference, but they still have strong incentive. In terms of independent development, the national economic and technological, economic and technological development zone has the authority of industry access examination and approval, investment amount examination and approval, urban planning, land control and other authorities equivalent to the Provincial Government. It also enjoys a large policy space in terms of financial credit, technological transformation and upgrading, which constitutes a strong positive incentive.

3.2 Geographical Advantages

In industrial economics and development economics, geographical location is considered as an important factor of production. A good location means that it has geographical proximity with the economic and financial center, the main source of resources, and the place of consumption. The traffic and climate conditions are suitable, and there are few factors that are likely to cause economic externalities, such as exclusion with the development of surrounding economic industries. In the economic management activities before the reform and opening up, the state has the idea of large and comprehensive, small and comprehensive in industrial layout, and the cognition of geographical factors is not detailed enough. At the beginning of the the economic and technological development zone, the past experience and lessons have been learned. The location and geographical conditions have become an important reference factor for decision makers. The coastal area, along the river, close to big cities, close to airports and ports have become the primary criteria for many economic and technological development zone. This decision also laid a good foundation for the economic and technological development zone. A series of empirical studies on the economic and technological development zone have proved this point. For example, for the economic and technological development zone located in the inland provinces, the geographical conditions are inferior to those in the coastal areas. The location advantage they borrowed is that they are close to the provincial capital cities and can directly borrow more complete infrastructure. Universities and research institutions are concentrated and there are many financial institutions. Local economic Highlands are formed by taking the force of one province and one city (provincial capital cities, cities with separate planning and larger cities).



Fig. 1. The distribution maps of national economic and technological development zone in China

3.3 Advantages of Industrial Agglomeration

Since the industrial revolution, the long-term industrial division and individual competition has bred an industrial agglomeration phenomenon, such as the financial industry in New York and London, the fashion and footwear industry in Italy, the Chicago area in the United States, the heavy equipment manufacturing industry in southern Germany, and the automobile industry, while the most famous one is undoubtedly the Silicon Valley in the United States. Its industrial chain covers the government, universities, think tanks, financial venture capital institutions, associations, human resources agencies, etc. forming the convergence of education, research, development, industrialization, sales, logistics, investment and financing, insurance, equipment leasing, information technology, vocational training and other diversified industries. Under the background of globalization, the separation of space and region is made up by the interconnection of science and technology network, and the world is increasingly becoming a global village. Industrial agglomeration has become an important link to cope with competition, establish adjustment of division of labor, reduce business risk, and seek greater profits (Li, X.W., 1995, pp.8-10).

Due to the agglomeration of industries, the economic and technological development zone has a strong performance in three aspects, namely, the actual utilization of foreign capital, the total industrial output value, and the fiscal and tax revenue. The common prosperity of one economic and technological development zone and two industrial parks in Suzhou proves the power of industrial agglomeration. In 1994, the Chinese Government signed an agreement with the Singapore Government to jointly Suzhou Industrial Park. The Singapore Government has trained the park management officials, and both sides have agreed on the park's operation mode, infrastructure construction, international market operation strategy, etc. Many businessmen,

including many of the world's top 500 enterprises, have come here. These enterprises formed a complete assembly production network between technology, raw materials, parts supply and production, and fostered mutual trust and cooperation in production cooperation, There is a clustering effect of "hen with chick" (Wu,H.R.,2013,pp.5-9). So that Suzhou and even the Yangtze River Delta region firmly established the advantages in the field of IT hardware industrial agglomeration has also brought a good platform for innovation. Zhongguancun Science and Technology Park in Beijing has another example, in addition to its superior location and sufficient capital, the innovation capacity of Zhongguancun Zone is second to none in China. Around Zhongguancun, there are a large number of educational and scientific research institutions represented by Peking University, Tsinghua University and Chinese Academy of Sciences. With their abundant intellectual support, Zhongguancun has bred two high-tech industrial development models, namely, Peking University Model and Tsinghua University Model. The FOUNDER Company of Peking University is a typical road of independent development, mainly relying on its own scientific research results and technology to carry out industrial technological innovation. For example, the key technology of FOUNDER's electronic publishing system was successfully tackled by Professor Wang Xuan, the winner of the highest national science and technology award, which completely changed the face of China's publishing industry. The TONGFANG Company, on the other hand, closely relies on Tsinghua University's advantages in talent and science and technology, selects projects that can be combined with the market from Tsinghua University's existing scientific research achievements, and finally develops the cascade through the combination of technology and capital to form rich products. In this innovation model, Tsinghua University provides the upstream of scientific research achievements, TONGFANG Company is the middle stream of technological innovation, while TONGFANG industry department and social enterprises that accept the transformation of technological innovation achievements are the downstream. In recent years, Zhongguancun Park has made many innovations in accepting venture capital and industrial incubation.

3.4 Financial Independence and Development Advantages

The acquisition and benefit of financial resources is an important variable that affects the decision-making behavior of governments at all levels and intergovernmental relations, and the economic and technological development zone is no exception. Researchers at home and abroad pointed out that the intention of local governments to expand the disposable financial share, so as to spare no effort to promote industrialization and urbanization is one of the important incentives of China's economic reform. The differences in economic development level between different regions are not only influenced by resource endowment, but also by the proper use of financial and fiscal leverage. The institutional advantages of the economic and technological development zone agglomerates capital through strong tax incentives, which is one aspect of the use of financial incentives. The unique competitive advantage of the economic and technological development zone also depends on its abundant and flexible autonomy in financial resources. The main financial revenue sources of the economic and technological development zone include taxes, land transfer fees and administrative fees. The largest revenue of the economic and technological development zone is the tax part, such as enterprise income tax, personal income tax, value-added tax, land use tax, execution tax, farmland occupation tax, education surcharges, etc. the land operation revenue also accounts for a large proportion of the economic and technological development zone's financial resources. According to the national laws and policies, the industrial land in the economic and technological development zone can be sold by agreement. All kinds of commercial land, such as commercial land, tourism land, entertainment land and commercial land, must be sold by auction. At the beginning of the establishment of the economic and technological development zone, the local government allocated a certain area of land, authorized the economic and technological development zone to carry out planning, arrange land use, enjoy greater autonomy in land pricing, and enjoy autonomy in the use of land value-added income(Xia, H.J,2001,pp.5-10). In the development process of the economic and technological development zone, local governments have successively expanded the land area of the core area of the economic and technological development zone, and transferred the rural villages and towns around the economic and technological development zone for management or replanning. In a short period of time, the economic and technological development zone has completed the production and business houses such as workshops and commercial buildings, and infrastructure such as roads, drainage, power supply, communication, gas, thermal power, greening, flood control and fire control. The construction of public service facilities, such as schools, hospitals, stations, catering accommodation, financial and postal services, has provided the economic and technological development zone with the basic conditions of urbanization and industrialization. These advanced infrastructure construction has created a platform for all kinds of industries to enter and produce economic benefits in a short time, and created conditions for the economic and technological development zone to increase profits and taxes. The profits and taxes created by the economic and technological development zone's industries, except for a small part which belongs to the national and provincial governments, most of

them remain in the economic and technological development zone as the capital accumulation for the new round of construction and industrial upgrading. While enjoying these policy autonomy, the investment management arrangement of the economic and technological development zone and the diversification of enterprise property rights overcome the phenomenon of "soft budget constraint" which is more common in the state-owned economy and the state pays for the losses of the state-owned enterprises to a certain extent, so that the policy advantages enjoyed by the economic and technological development zone can be effectively fed back to the sustainable development of the zone itself.

4. CONCLUSION

To sum up, the development of China's economic and technological development zone benefits from the good environment created by the reform and opening up. At the same time, the economic and technological development zone have accumulated rich competitive advantages in the process of self-development and self-improvement. The resources of China's model contained economic and technological development zone deserve further exploration and research.

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