



Science and Technology Service Industry Helps Replace Old Growth Drivers with New Ones in Jinan

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Abstract

Technology is a powerful force supporting economic development. Jinan strives to build an important national regional technological innovation center and realizes the transformation of old growth drivers with new ones of economic development. It is necessary to build an efficient urban technology innovation service system, vigorously develop the science and technology service industry, open up the channel between science and technology and economic and social development and eliminate the 'island phenomenon' in technological innovation. We must vigorously promote the construction of high-tech zones, agglomerate innovation elements, vigorously develop technology transfer and science and technology financial service industries, provide technical, capital, and policy support for the development of science and technology-based enterprises, and foster new momentum for economic development.

Keywords: Science and Technology Service Industry; Economic Development; Replace Old Growth Drivers With New Ones.

1. Research Background

Since the 18th national congress of the communist party of China, General Secretary Xi Jinping proposed that China's economic development will enter a new normal, which will shift from a high-speed economic growth stage to a high-quality development stage. Its essence is that the economic development model will shift from investment-driven to innovation-driven. The most important measure for the implementation of innovation-driven development strategies, the development of a new economy, and the cultivation of new momentum are "mass entrepreneurship and innovation," and give full play to the role of technological innovation in supporting and leading the economy.

Jinan, as the capital city of Shandong Province, puts forward the goal of 'building an important regional science and technology innovation center in the country'. It is necessary to establish Jinan as a strategic source of domestic scientific and technological achievements and a new highland for scientific and technological innovation between Beijing and Shanghai, becoming a first-class domestic and international well-known regional science and technology innovation center and the innovative city. Its core is to create an efficient city science and technology innovation service system. The specific carrier is the science and technology service industry.

The science and technology service industry is characterized by high intelligence, high efficiency, high capital, high returns, etc. It has a high degree of outreach and industry-related driving effect and is the basis and link for the rapid development of the primary and secondary industries and modern service industries. The degree of industrial development is an important indicator of regional scientific and technological innovation capabilities, comprehensive

competitiveness and modernization. Vigorously developing the science and technology service industry is of great significance to the implementation of innovation-driven strategies, the activation of scientific and technological resources, the service of the real economy, and the opening of channels between science and technology and economic and social development to promote to replace old growth drivers with new ones in Jinan.

2. The Internal Mechanism of Science and Technology Service Industry Promotes to Replace Old Growth Drivers With New Ones in Jinan

Innovation is a systematic project. The innovation chain interweaves and supports each other with the industrial chain, capital chain, and policy chain. The cultivation and use of talents runs through all aspects of the innovation chain. Technological innovation promotes the conversion of old and new growth drivers, and scientific and technological progress has become an important driving force for economic and social development.

Innovation needs to give full play to the main responsibilities of universities, enterprises, and research institutes, cultivate and use talents in practice, establish talent cultivation and use mechanisms that focus on companies as the mainstay, market orientation, and the integration of industries, universities, and research institutes, and shorten the distance among school education, scientific research and practical and industrial production.

Accelerating the implementation of the innovation-driven development strategy is to enable the market to play a decisive role in the allocation of resources and to better play the role of the government, to eliminate all barriers to innovation and institutional barriers to innovation. Simulate innovation in the entire society and create potential, and improve the efficiency and benefits of labor, information, knowledge, technology, management, and capital. Enhance the integration of science and technology with the economy, the connection of innovation results with industry, the connection between innovative projects and the actual productivity, the connection of innovative labor of R&D personnel with their own interest income, and the enhancement of technological progress for economic development. Contribute to create a policy environment and institutional environment for popular entrepreneurship and innovation, and eliminate the 'island phenomenon' in technological innovation.

The important carrier for connecting scientific and technological resources and the real economy is the science and technology service industry. Just as transportation, energy, and communications are the infrastructure of the traditional industrial economy, the technological innovation service system (including public technology R&D service platforms, technology transfer and transaction service platforms, venture capital investment service platforms, science and technology information service platforms, and scientific and technological personnel service platforms, etc.) are the infrastructure for a new round of industrial reforms. Therefore, it should be vigorously developed of technology and service industries to promote the development of new economies and the transformation of old and new kinetic energy.

The science and technology service industry is the cornerstone and an important driving force for the development and promotion of modern industries. As an effective carrier for linking the industrial chain, the science and technology service industry has become the most direct and effective driving force for promoting industrial efficiency, industrial structure optimization, and industrial quality improvement through the use of industrial linkages, technology transfer, and knowledge diffusion; and modern industry, as the major customers and strategic carrying capacity of the Science and technology service industry, provides them with a good development environment, adversely affect the technology service industry, and promote their productivity and competitiveness.

3. The Path of Science and Technology Service Industry Promotes to Replace Old Growth Drivers With New Ones in Jinan

3.1 Promote the Development of High-Tech Zones

As the frontier and main position for the implementation of innovation-driven development strategy, the High-tech Zone can effectively gather the elements of innovation and entrepreneurship, incubate and cultivate market players, develop high-tech industries, build incentives institutional mechanisms for innovation, guide innovative factors to gather and flow, and develop new driving forces for development. Consolidating the foundation of the real economy has become the most important strategic force for the promotion of "double creation" and the development of high-tech industries, which has effectively supported the transformation of the new and old kinetic energy of economic development.

Efforts should be made to explore new technologies, new industries, new business models, and new models, construct a streamlined and efficient high-tech zone management service model, and create high-tech parks with new development concepts, superior industrial structure, strong resource allocation, and remarkable innovation results. Strengthen the construction of public R&D platforms and technology service systems, promote the two-way integration of innovation chains and industrial chains, optimize entrepreneurial ecology, and promote popular entrepreneurship and innovation.

3.2 Energetically Nurturing the Development of Technology-Based Medium Small and Micro-Sized Enterprises

In accordance with the government guidance, finance and social capital to jointly support the development model of medium small and micro-sized enterprises, a number of scientific and technological enterprises with strong innovative capacity and great potential for development have come to the fore and grow into high and new technology enterprises. We will promote the professional development of scientific and technological enterprise incubator and the increase of space quality and increase efficiency, and realize the improvement of both quantity and quality of the carrier of innovation incubating, and enhance the ability of cultivating those technology-based medium small and micro-sized enterprises. The key enterprise technology service center will be fully covered to improve the precision of the scientific and technological service enterprises, cultivate more and more technology-based medium small and micro-sized enterprises, and transform the reserve force for replacing old growth drivers with new ones .

3.3 Energetically Developing Technology Transfer Service Industry

It is of great significance to promote the cooperative development of colleges, intermediaries and enterprises by technology transfer services, accelerate the implementation of innovation driven development strategy, and promote the circulation of technology elements and industrial transformation and upgrading. We should introduce the market competition mechanism and master the technical transfer professional knowledge, be familiar with the technology transfer business process, understand the information of the two sides of the technology supply and demand, and have the professional management team with the experience of technology transfer management to organize the operation and improve the efficiency of the technology transfer service in Jinan.

The technology transfer service industry will start from the whole process the whole chain and all factors of technology transfer, focus on the weak links of the technology transfer system and the key crux in transfer and transformation, build the basic structure of the technology transfer system, and get through the basic channel of technology transfer to form the Closely interactive technology transfer network with government, production, study, research and finance. The mobile technology transfer network provides basic services and strong support for Jinan's technology transfer, transformation of scientific and technological achievements, and incubation of innovation and entrepreneurship projects. At the same time, we will also set up a regular collection mechanism, concentrate on the conference of achievements, fully excavate, integrate and introduce the resources of technical achievements, fully dock other advanced technology transfer institutions at home and abroad, create interconnected technology transfer system, cultivate professional technology transfer personnel, and construct the innovation oriented and regional technology transfer new ecosystem.

3.4 Vigorously Developing the Technology and Financial Services

We should develop intellectual property pledge financing, innovate the way of pledge, and carry out movable asset finance pledge of small and micro enterprises, such as pledge of accounts receivable, intellectual property pledge financing, etc. In Qilu equity trading center, the "science and technology board" was set up to encourage banks to credit for medium small and micro-sized enterprises, and to set up a risk compensation mechanism for the relief of innovation activities of scientific and technological enterprises.

We support the development of private equity funds and risk compensation funds. The risk compensation fund is the government credit guarantee fund, which is mainly used to promote the loan of the cooperative bank which is responsible for the risk compensation business of the city, and is responsible for the limited compensation and compensation responsibility for the capital loss caused by the cooperative bank for the loan of the technology-based small and medium enterprises.

3.5 Improving the Level of Intellectual Property Service Industry

We should speed up the construction of the public service platform for intellectual property, and create a "one-stop" integrated service platform which integrates patent application, operation, transaction and financial services. We will carry out patent navigation to provide enterprises, industries and regions with all-round services of intellectual property and guide the direction of industrial technology innovation. We will build a new and old patent library for replacing old growth drivers with new ones, and support enterprises to introduce patent technology urgently needed by industry through transfer, licensing, investment and so on.

3.6 Continue to Push Forward the "Innovation Voucher" Policy

The innovation vouchers policy is a government innovation investment policy based on the innovation demand of small and medium enterprises. It is a kind of "innovative currency" which is designed and issued by universities and R&D

institutions for the lack of economic strength, lack of innovative resources, and the lack of dynamic mechanism for the service of small and medium enterprises. The government issued innovative vouchers to enterprises, and enterprises used innovative coupons to purchase scientific research services from R & D personnel. Finally, research service personnel hold innovation vouchers to the government financial department to honor.

Innovation vouchers can bring into play the driving role of public technology input in small and medium-size enterprises innovation. Innovation vouchers guide universities and research institutes to serve small and medium-size enterprises. Through the policy of innovating vouchers, the government has reduced the cost of innovative investment for small and medium-sized enterprises and increased the benefits of technical services for universities and scientific research institutes, and built a market bridge between small and medium enterprises and universities and scientific research institutes, which greatly mobilized the enthusiasm of universities and scientific research institutes.

3.7 Enhance the Professional Quality of Practitioners in Science and Technology Service Industry

Highly qualified personnel have become an important guarantee for the rapid development of the science and technology service industry. Strengthen the cultivation and introduction of compound talents, establish a scientific and effective talent reward mechanism, and comprehensively upgrade the professional level and professional quality of employees in the science and technology service industry. The human resources department of the science and technology service industry should also enhance the professional quality of its employees from many aspects such as enterprise recruitment and employee training, and train the existing employees of the company to become composite talents with professional knowledge, advanced management concepts, and capital management capabilities. At the same time, relying heavily on the scientific and technological service institutions established by universities and research institutes, it is ensured that the professional structure of talents involves various disciplines.

4. Conclusion

The key to the replacing old growth drivers with new ones lies in innovation. Through the in-depth implementation of innovation driven development strategy, the technology service industry is vigorously developed, a new engine leading to the economic development of Jinan is created, new growth drivers is injected into the economic development, the multiplier effect of innovation is released, and the economic quality and efficiency can be achieved. We should build a scientific and technological service collaboration network, establish a platform for scientific and technological knowledge service platform, and create a number of technology service industry cluster areas to enhance the high-end technology service capabilities.

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