

# Research on Mechanisms and Policies to Promote the Development of Innovation and Entrepreneurship

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**Keywords:** Technology service industry, Innovation, Entrepreneurship

**Abstract.** The technology services industry plays an important role in innovation and entrepreneurial development. This paper analyzes the role of the technology service industry, discusses the important role of the technology service industry in economic growth and the mechanism to promote innovation and entrepreneurship. The study found that the technology service industry promotes innovation and entrepreneurship by creating an innovative environment, using entrepreneurship, promoting the emergence of new industries, and leveraging the market's value discovery capabilities. At the same time, the author proposes to strengthen personnel training, strengthen policy support, create an innovative environment, and promote the development of innovation and entrepreneurship.

## 1. Introduction

General Secretary Xi Jinping has pointed out many times that innovation is the first driving force for development and the strategic support for building a modern economic system. China is in the new journey from a big science and technology country to a technological powerhouse. "Innovation drives development, reform drives innovation" has become a consensus. The current economic theory explains that the reason for the rapid growth of China's economy lies in industrialization. However, in the current academic research field of science and technology service industry, the existing economic theory has not analyzed the specific path and mechanism of the technology service industry to promote innovation and entrepreneurship. The author deeply analyzes the internal mechanism of science and technology service industry to promote innovation and entrepreneurship and puts forward relevant policy recommendations. It is of great significance to realize scientific and technological innovation to lead industrial upgrading, implement innovation-driven development strategy, and promote economic upgrading and efficiency improvement.

## 2. The Frontier Review

### 2.1 Technology service industry and innovation

Innovation in economics originated from Schumpeter's innovative concept. Schumpeter created the concept of "innovation" for the first time in the Economic Development Theory published in 1912. Innovation includes five forms: the introduction of new products, the use of new production methods, the opening of new markets, new sources of new or semi-finished products, and a new form of business organization<sup>[1]</sup>. Asikainen, Anna-Leena.(2013) believe that knowledge-intensive services are a bridge between science and the market, playing a central role in emerging R&D systems<sup>[2]</sup>. Hu M C, John A. Mathews (2008) analyzed regional innovation drivers and concluded that the role of universities in regional innovation activities is becoming more important. Relatively speaking, the contribution of the public sector is relatively lacking. Institutional improvement and the entry of many institutions into the private sector will have an impact on innovation capabilities<sup>[3]</sup>. In China, Xu Qiang research shows that the key to the service industry cluster is the service enterprise. The purpose of the service industry cluster is to obtain the demand and supply benefits. The service

enterprise can provide services and products to consumers in the process of achieving this goal<sup>[4]</sup>. In the development and application of the technology service industry, Wu Bingbing (2015) has divided three development modes of science and technology service industry according to the characteristics of industrial clusters, namely, ecological industrial clusters, virtualized industrial clusters, and chained industrial clusters. Chen Chunming (2014) evaluated the current status of China's science and technology service industry. By analyzing the specific development of the science and technology service industry in selected provinces, it was concluded that the industrial agglomeration effect can improve the competitiveness of the regional science and technology service industry and the corresponding formation of scale<sup>[5]</sup>.

## 2.2 Technology service industry and entrepreneurship

In foreign countries, Ellram L M, et al. (2004) believe that technology intermediaries play an important role in the industrial chain, and promote innovation and entrepreneurship activities through links with other downstream industries<sup>[6]</sup>. HOWELLS J (2006) analyzed the mechanism of technology intermediary service and innovation activity from the perspective of "chain relationship". Judge W Q, et al. (2013) analyzes the impact of several factors, such as capital, entrepreneurship education, legal services, and institutions, on entrepreneurship through regression models<sup>[7]</sup>.

In China, Chen Gang (2015) found that government regulation significantly reduced the entrepreneurial probability of "low social network groups" and "low-income groups", but did not significantly reduce the entrepreneurial probability of "high social network groups" and "high-income groups". He concluded that the "simple administration and decentralization" reform not only helps to enhance the entrepreneurial vitality of the Chinese economy, but also helps to balance employment opportunities between different groups, thereby promoting social equity<sup>[8]</sup>. Lin Yuanchun (2017) proposed the concept of innovation and entrepreneurship service ecological chain, researched the innovation and entrepreneurship service chain from the perspective of organizational ecology, and found that China's regional innovation and entrepreneurship ecological service chain still faces problems such as insufficient endogenous power and incomplete chain. It proposes to improve it through a series of contents such as innovation and entrepreneurship education, innovation and entrepreneurship counseling, investment and financing docking, marketing, and listing training<sup>[9]</sup>.

At present, mainstream economics abroad uses the theory of endogenous economic growth to explain the effects of knowledge, technology, and human capital accumulation on economic growth, but does not explain the specific process and mechanism. Only some scholars try to demonstrate the role of the technology service industry. Domestic mainstream economics verifies the applicability of endogenous economic growth theory in China. It also does not analyze the process and mechanism of knowledge and technology to promote economic growth. It ignores the focus and mechanism of the function of science and technology service industry. Provide theoretical space for the research of this paper.

## 3. Analysis of factors affecting the development of innovation and entrepreneurship

The role of the Science and Technology Innovation Center depends on its own innovative ecosystem. According to the theory of innovation ecosystem, the science and technology innovation ecosystem is a multi-level dynamic open system with multiple parties. Through a series of dynamic processes such as synergy and interaction, the Science and Technology Innovation Center will be promoted to form a deep integration and mutually beneficial innovation symbiosis, and feedback to other entities through its technology spillover effect, thus realizing the self-reinforcement of the entire science and technology innovation center. The root of this development model is the existence of corporate interests and market-driven role. The technology service industry uses its own platform to gather and integrate innovative resources such as talents, technology and capital among enterprises, universities and scientific research institutions.

### **3.1 Innovative subject**

The main players of innovation include the government, universities, research institutions and high-tech enterprises. The government is the main body of institutional innovation and an important guarantee for the innovation of the ecological environment. Universities, research institutes, and high-tech industries are the mainstays of science and technology innovation, undertaking research and development, pilot-scale transformation, and scale production of scientific and technological achievements, and promoting collaborative innovation and market application of science and technology through close communication and interaction.

### **3.2 Service organization**

Service organizations consist of technology services, financial services, and some industry support systems. The important function of the science and technology service industry is its service role. It can provide scientific and technological services such as R&D, technology consulting, technology trading, and technology finance for the innovation subject. It is an important link connecting the development, transformation and application of scientific and technological achievements, and promotes the smooth development of the protection industry.

### **3.3 Innovation environment**

The innovation environment includes innovative infrastructure such as information networks, laboratories, libraries, and databases, as well as an ecological environment consisting of markets, policies, culture, and institutional mechanisms. In the early stage of the establishment of the Science and Technology Innovation Center, the government and social organizations, as the main part, accelerated the formation and development of the Science and Technology Innovation Center by constructing an environmental framework to attract innovations such as enterprises, scientific research institutions and other innovative elements.

## **4. The mechanism of science and technology service industry promoting entrepreneurship**

Different natural resources, human ecology and economic environment will lead to the emergence of different science and technology cultures, and will also attract different entrepreneurs to break through technology and seek innovation from different angles. Therefore, the development of the science and technology service industry can not only gather scientific and technological resources, but also create a policy environment. He is more like an invisible ruler to influence entrepreneurs and innovators of different vertebral bodies to innovate the ecological environment, innovate the original and innovate in different directions. Corporate culture, the road to entrepreneurship, and thus promote economic development.

### **4.1 Promote the emergence of new formats**

The innovation ecosystem is an organic collection of multi-subject interactions. The science and technology service industry promotes the smooth development of innovation activities by creating an innovation ecosystem. Similar to the natural ecosystem, the entrepreneurial ecosystem is composed of two parts, inside and outside. The entrepreneurial ecosystem can not only build a complete internal and external structure of the entrepreneurial enterprise, but also has its own characteristics. The entrepreneurial ecosystem includes various subsystems and diverse participants, and innovative entities such as enterprises, universities and research institutions, and the government participate in the construction. The integration of various parts such as innovative industrial policies and institutional systems and the incentives of social funds constitutes an innovation ecosystem.

### **4.2 Create a good ecosystem**

Entrepreneurs are usually the founders of companies, and they can create a career from scratch. They have a strong spirit of innovation, cooperation, development, hard work and hard work. The rise of the science and technology service industry has provided countless entrepreneurs with a platform and

means to show their ambitions, and promoted the entrepreneurial spirit and the inheritance of entrepreneurship. Under the background of entrepreneurship and innovation, entrepreneurs have strict requirements for the overall understanding of the environment, team relationship processing, and knowledge and psychological quality. The impact of individual differences will lead to different development paths of enterprises, entrepreneurship incubation, and the development of scientific and technological personnel training functions, which indirectly raise the entrepreneurial threshold of entrepreneurs, improve their overall quality, lay the foundation for the smooth development of entrepreneurial activities, and play the role of entrepreneurs. The ability to coordinate and coordinate, test their professional and technical capabilities, and better allocate social capital, further promote the formation of entrepreneurial innovation and entrepreneurship.

### **4.3 Play the spirit of entrepreneurs**

Entrepreneurs are usually the founders of enterprises, the practitioners of "creative destruction", and "entrepreneurship" refers to the spirit of pioneering spirit and pioneering spirit, and the ability to create a career from scratch. They have a strong spirit of innovation, cooperation, development, hard work and hard work. The rise of the science and technology service industry has provided countless entrepreneurs with a platform and means to show their ambitions, and promoted the entrepreneurial spirit and the inheritance of entrepreneurship.

Under the background of entrepreneurship and innovation, entrepreneurs have strict requirements for the overall understanding of the environment, team relationship processing, and knowledge and psychological quality. This is the prerequisite for the entrepreneurial spirit formation and entrepreneurial activities to be carried out smoothly. The impact of individual differences will lead to different development paths of enterprises, entrepreneurship incubation, and the development of scientific and technological personnel training functions, which indirectly raise the entrepreneurial threshold of entrepreneurs, can filter some entrepreneurs with insufficient comprehensive ability, improve their comprehensive quality, and create entrepreneurial activities. The smooth development of the foundation lays the foundation for the entrepreneurs' ability to coordinate and coordinate, test their professional and technical capabilities, and better allocate social capital, further promoting the formation of entrepreneurs' innovative entrepreneurship and adventurous spirit.

## **5. Suggestions**

### **5.1 Strengthen the training of talents**

Enhance the attractiveness of talents, allocate floating talents to the science and technology institutions and relevant research institutes, increase the capital investment in the construction of infrastructure such as cutting-edge industrial laboratories and supporting large scientific equipment groups, and give play to the market orientation in the process of human resources flow. Role, improve the organization and management system for overseas talents, improve the national treatment, medical care, housing, children's education and other ancillary services, attract internationally influential academic talents, and enhance the internationalization level of China's scientific research institutions.

### **5.2 Enhance support for innovation activities**

Through the role of science and technology in promoting traditional industries, we will give full play to the role of support and guidance, design policies that are consistent with the development characteristics of each technology group, and accelerate the transformation and upgrading of traditional industries. The world's leading research institutes, research laboratories and other infrastructure in the cutting-edge field. Strengthen policy guidance, encourage manufacturing enterprises to increase technological transformation, strengthen the construction of enterprise technology centers, support special activities for science and technology to benefit the people, and clarify the core ideas for technological innovation to achieve breakthroughs through technology.

### 5.3 Create a good environment for innovation

Strengthen intellectual property services. From a legal perspective, formulate and implement a strong protection system for intellectual property services, increase intellectual property protection and illegal punishment, and at the same time increase legal publicity and enhance the awareness of intellectual property protection for all. At the same time, we will strive to create a culture of innovation, focus on the cultivation of innovative culture, increase activities such as entrepreneurial competitions and entrepreneurial sharing, and enhance the formation of regional innovation atmosphere.

## 6. Conclusion

This paper starts from the relationship between science and technology service industry and innovation and entrepreneurship. By analyzing the frontier achievements of scholars in related fields, this paper reflects the indispensability of science and technology service industry in promoting innovation and entrepreneurship. Combining China's current important strategies for building an innovative country, and analyzing the functions and mechanisms of the technical service industry, it has certain guiding significance for the development of China's science and technology services. China is in the key historical period of social and economic transformation. The development of new technologies, new industries and new formats will determine the future economic development of China. China should constantly improve the path of innovative industrialization and industrial innovation, and promote the optimization and upgrading of industrial structure.

## References

- [1] Joseph A. Schumpeter. The Theory of Economic Development[M].The Commercial Press, 2000.
- [2] Asikainen, Anna-Leena. Innovation modes and strategies in knowledge intensive business services[J]. Service Business, 2015,9(1):77-95.
- [3] Hu M C, Mathews J A. China's national innovative capacity[J]. Research Policy, 2008, 37(9):1465-1479.
- [4] Xu Qiang.Study of Service Enterprise Cluster Innovation[D].Sichuan University, 2003.
- [5] Chen Chunming, Xue Fuhong Research on the Status Quo and Countermeasures of Science and Technology Service Industry[J]. Study & Exploration, 2014(4):100-104.
- [6] Ellram L M, Tate W L, Billington C. Understanding and Managing the Services Supply Chain[J]. Journal of Supply Chain Management, 2006,40(4):17-32.
- [7] Judge W Q, Yuping Liu mil hompkins, Brown J L, et al. The Impact of Home Country Institutions on Corporate Technological Entrepreneurship via R&D Investments and Virtual World Presence[J]. Entrepreneurship: Theory and Practice, 2013,39(2):237-266.
- [8] Chen Gang. The Regulation and the Entrepreneurship: The Micro Evidence from China [J]. Management World, 2015(05):89-99+187-188.
- [9] Lin Yuanchun. Innovative Entrepreneurship Ecological Service Chain:Theoretical Connotation and Policy Implications [J]. Regional Economic Review, 2015(03):64-69.