The Theory of Maker Ecology under the Background of “Double Creation”

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Abstract: From the perspective of the international environment, the speed of economic development in many countries has slowed down to varying degrees. As the competitive pressures on international products continue to increase and the scale of exports shrinks, this requires us to focus on the improvement of domestic market demand and stabilize economic development. This paper explores the comparison and analysis of domestic and foreign innovation and entrepreneurship policies under the background of "double innovation" of "mass entrepreneurship and innovation", and proposes optimization measures to further accelerate the sustained and healthy growth of China's economy.

1. Introduction

The 18th National Congress of the Communist Party of China clearly established the innovation-driven development strategy of accelerating the transformation of the dynamic mechanism of economic and social development with the continuous accumulation of knowledge, creation and application of the whole society. In recent years, the implementation of the “Internet Plus” action plan at the national level has brought about a whole society's innovation and entrepreneurial enthusiasm represented by the concepts and practices of “all innovation” and “creator space” [1-3]. In the government work report, it is particularly important to vigorously promote "mass entrepreneurship, innovation" and put forward new tasks and requirements for the innovation and entrepreneurship of the whole people [4]. Therefore, promoting entrepreneurship and innovation is an inevitable choice for cultivating and promoting new impetus for economic and social development. It is a fundamental measure to expand employment and realize the path of enriching the people. It is an effective way to stimulate the innovation potential and entrepreneurial vitality of the whole society [5-9]. Improve the contribution rate of the “double creation” activities of Maker to economic development. In the current period, under the situation that China's economy continues to maintain medium and high speed development, it is necessary to find new engines and new growth points to stimulate development. It is of practical significance to promote the development of "double innovation", implement the innovation-driven development strategy, and promote the arrival of the era of national innovation. [10-16]. Nowadays, some countries have already listed innovation and entrepreneurship education as an important part of the national education system and even the overall strategy. At present, the development of China's invigorating maker space faces challenges in understanding and supporting funds, members, skills and society [17 -20].

2. Comparative Analysis of Domestic and Foreign Innovation and Entrepreneurship Policies

2.1 The Background of Innovation and Entrepreneurship at Home and Abroad.

From an international perspective, the current commodity prices continue to plummet, the international economy continues to be low, and it is not optimistic. The external demand in the international market continues to be sluggish. In particular, China's traditional superior products are facing further space squeeze, and international competition pressures are on the rise. To this end, only by opening up the national smart market, further boosting domestic demand and stimulating a
stable economy, the domestic market, which accounts for one-fifth of the world's population, has sufficient carrying capacity; in addition, the external demand of the international market has also raised for China's export products. Higher requirements, low value-added products because China's labor costs have no advantage, and other countries have seized most of the market share, only through innovation and upgrading, to enhance the technological content of products in order to stand in the fierce competition. Through "mass entrepreneurship, innovation," creating new technologies, new products, new services, new experiences, improving user satisfaction, and opening up new market share, China's products in the international market steadily increased.

2.2 Domestic Innovation and Entrepreneurship Policy.

The main contents of China's innovation and entrepreneurship policy: financial support policy, tax support policy, administrative support, and technological innovation policy. China's innovation and entrepreneurship focuses on macro aspects, mainly for large-scale project projects such as financing and regional government incubators. For example, according to the growth characteristics of China's entrepreneurial enterprises and the overall planning and requirements of national industrial development, the government has successively established technological innovations for small and medium-sized enterprises. Funds, development special funds, international market development funds. From the domestic point of view, the correct judgment of the new economic normal has already clarified that the current economy cannot embark on the economic growth mode of the previous fast lane. With the gradual disappearance of the demographic dividend, the downward pressure on the domestic economy is still huge, and the factors of production drive economic development. The way to rely on innovation to drive conversion and upgrade has become the trend of the times, the domestic market demand expansion can only be achieved through the creation of high value-added products through the dual-creation business. On the other hand, employment pressure also promotes public entrepreneurship as one of the important means to ease employment pressure. It activates the folk economy through mass entrepreneurship, creates more employment opportunities in the mountains, and promotes sustained and healthy economic development. The state's investment in innovation has been maintaining rapid growth, as shown in Figure 1, for the proportion of research and experimental input GDP has been steadily increasing.

![Fig. 1 The Percentage Table of China's R&D Input to GDP from 2008 to 2018](image)

2.3 Foreign Innovation and Entrepreneurship Policy.

The foreign knowledge open policy proposes to increase the protection of knowledge innovation in infrastructure construction and promote the participation of the whole process in the innovation process. Specifically, we can improve public data acquisition capacity and data literacy, create a more open intellectual property system, expand and promote the sharing of research results, create a good innovation ecosystem, encourage and support social innovation exploration, and increase education and research and development. Investment; emphasizing innovation cooperation across the EU level, and believes that policy coordination, cross-disciplinary and multi-party collaboration and research, and joint education input should be strengthened. What foreign countries advocate is open
sharing as much as possible, and in the era of open science that has already arrived, including the open access policy for information resources, including free reading, and the legal framework for ensuring the use of scientific research data; and promoting the development of big data through the establishment of relevant infrastructure. The globally dispersed data set forms the “global open science cloud”. At present, countries have advocated technological innovation and industrial restructuring, which has led to the entrepreneurial craze in many countries, and the maker culture has swept across countries. Western developed countries have experienced long-term exploration, and the cultivation of the maker culture has achieved remarkable results.

3. Analysis of Specific Methods and Ways of Carrying out Entrepreneurship Education

3.1 The Comprehensive Coverage of Entrepreneurship Education Curriculum System.

Most colleges and universities in the United States have already established entrepreneurship as a professional subject area, so the curriculum system and teaching plan design are very systematic and perfect. For the American Berson College, Babson Business School has a total of 35 professional teachers in entrepreneurship education, with 33 related courses. The school also designed a prestigious curriculum syllabus for entrepreneurship education and funded the most prestigious academic institutions in entrepreneurship to support entrepreneurship education. In the design of entrepreneurship education curriculum, American colleges and universities have combined their teaching and practice into their own characteristics. “The public elective course is a practical course, the main content is the analysis of entrepreneurship education under the guidance of teachers”. The core curriculum is designed for undergraduate and graduate students in the program. The curriculum design covers five parts: entrepreneurs, strategy and business opportunities, entrepreneurial financing, resource needs and business plans, and rapid growth. The course content consists of modules such as basic theory, simulation exercises, and case analysis. In summary, the systematic design of curriculum design is an important guarantee for practicing educational concepts and achieving educational goals.

3.2 The Necessity of Implementing Entrepreneurship Education in Colleges and Universities.

It is very necessary to formulate and develop a practical entrepreneurship education curriculum in colleges and universities in China. In order to achieve the goal, the advancement of China's colleges and universities in entrepreneurship education has rules to follow, and it can be achieved from macro to concrete. Maker education is a key factor in cultivating the culture of makers. Maker culture is an innovation and entrepreneurial culture with makers as the source. The quality of Maker education plays a key role in cultivating the Maker culture. In the process of revitalization, developed countries have paid great attention to the development of education and have made great achievements. Doing a good job in the maker education course is conducive to the development of the public's innovative thinking and ability, and provides an internal drive for the innovator to change the maker.

3.3 Policy System is an Important Guarantee for Cultivating the Culture of Makers.

In the creation of the cultural atmosphere of the makers, the state's policies, regulations, and systems can provide many dividends for the makers and stimulate the innovation and innovation of the makers. The improvement of intellectual property rights has injected a strong heart into the “creable” makers and promoted the creation of “cred”. Accelerating the establishment of the maker guidance system will help the innovation of makers to be more scientific and standardized. Drawing on the successful experience of the world's major scientific and technological innovation countries, we will vigorously develop innovative technologies and strive to become an innovative country. To promote the maker culture and cultivate the entrepreneurial atmosphere of "all-people innovation", we need to adhere to the principle of self-centeredness and external use, based on the original, to absorb the outside, and to face the future. Based on China's national conditions, adhere to the direction of socialist innovation culture, rooted in the group of makers, and tap the sense of innovation from the source. Effectively solve the consumer demand and market pain points, and
strive to achieve the unity of development speed and development quality.

4. Double Innovation Policy Type Analysis

4.1 Demand-Based Dual Innovation Policy.

The supply-oriented dual-creation policy belongs to the government's driving force for science and technology innovation and entrepreneurship activities. The environmental-type dual-invasive policy has an indirect impact on science and technology innovation and entrepreneurship activities. The demand-oriented dual-invasive policy aims to promote the dual-invasive activities and use government procurement. The policy tools and means to expand the dual demand of enterprises, the government financial funds on the innovative products of high-tech enterprises and other start-ups that need to be supported, through a large number of procurement products to promote the changes in the market demand of the enterprise. The use of this method has greatly improved the survival rate of start-ups, and the company's own dual-creation power has also been improved. The three types of policies affect each other to promote and influence each other to a different extent, and together constitute a system for the role of regional dual-innovation policies in science and technology innovation and entrepreneurship.

4.2 Talent Cultivation and Introduction Policy.

Talent cultivation is the intellectual support of innovation and entrepreneurship. It mainly enhances the subject's innovation and entrepreneurial awareness and skills through innovative entrepreneurship education and training. It must not only cultivate the subject's knowledge ability in business management, but also cultivate the subject's innovation consciousness. And the spirit of ability, courage to try and take risks. The talent introduction policy is mainly aimed at the current mismatch between talent supply and talent demand. Through the talent introduction policy, it promotes the free flow of intellectual resources, promotes the balance between supply and demand, and promotes better development between regions.

4.3 Technological Innovation Support Policy.

Innovation and entrepreneurship is a driving force for innovation, mainly reflected in technological innovation. Therefore, on the one hand, innovation and entrepreneurship policies should promote scientific and technological innovation. First, we must increase support for the construction of various types of “double-creative” institutions, including the construction of internal R&D centers, and give certain enterprises to R&D centers. Financial assistance to build a better exchange and cooperation platform for industry, academia and research. The second is to support enterprises to independently innovate, especially with independent intellectual property rights, various types of inventions and creations, and incentive subsidies.

4.4 Operating Capital Support Policy.

The basic idea is consistent with the traditional entrepreneurial policy, and through financial support, to reduce the operating costs of enterprises. The difference is mainly reflected in the financing support policy. Innovative venture financing has changed the financing method of traditional entrepreneurship and reflects the market-oriented financing method. However, China's market-oriented financing environment still has many difficulties. For example, angel investment is lagging behind the development of innovation and entrepreneurship due to its high risk and low rate of return.

5. Analysis of the Needs of the Times in the Context of Dual Innovation

5.1 The Era of Big Data and the Internet.

With the rapid development and globalization of emerging information technologies such as big
data and artificial intelligence, whether it is the digital dividend of global integration development at the macroeconomic level, the digital globalization brought about by the meso-level data and information flow, or the micro level Digitalization of enterprise strategic layout and transformation, digitalization has undoubtedly become the focus of the country, government, enterprises and individuals. Because whether it is "the right to make information" or "national information security", in the final analysis, human competition and development in the future depend on the occupation or distribution of resources. It is almost uncontroversial that the biggest obstacle to digital dividends, digital globalization, and digital enterprise development is not technology, but the coordination of “non-digital supporting mechanisms” and technology, which requires policy makers and senior leaders from a macro perspective. The meso and micro levels face the overall understanding of economic and social innovation. As mentioned earlier, this requires mobilizing the coordinated participation of various types of social forces such as government, universities, enterprises, and even individuals.

5.2 Maker team Needs to be Optimized.

As the main body of “Double Creation”, Maker is the leader of the “Double Creation” movement. With the rapid development of the Maker movement, the number of Maker has surged, but the quality of Maker is not high. First of all, there are fewer senior creators. High-quality senior creators have rich experience and experience, and have role models, guidance and driving effects for junior creators. They are the spiritual leaders of the maker movement. Most of the makers in the current state of development are junior creators who are just getting started. They only stay at the stage of creative output and creative and realistic needs. The quality is relatively low and there is no higher focus. The maker movement is not just about stopping good thoughts and ideas, but about incubating ideas into real results. The maker activity has an economic nature and ultimately aims to promote economic progress. The growth and growth of the maker team faces many pressures. From a technical point of view, grassroots entrepreneurs in makers have limited access to and available scientific and technological resources compared to professional innovators in universities and research institutions. They are constrained by technology and related guidance, and their ability to innovate is also Will be subject to certain restrictions. These factors have hindered the improvement of the quality of the maker team.

5.3 The Weak Creative Ability of the Maker Culture Area

The maker culture is a fertile ground for cultivating the makers. Only by cultivating the culture of the whole society can it promote the innovation of the whole people. China has a vast territory, and there are differences in the degree and level of development between North and South and East and West. At the same time, there are many industrial types and different characteristics. On this basis, different maker spaces will also be specifically positioned. These factors affect the maker culture. Integration.

5.4 Impetuous Maker Culture

With the policy express, innovators with enthusiasm and bold spirits have poured into the ranks of makers. As the makers' movements are in full swing, the phenomenon of pseudo-creator and pseudo-creator space has quietly emerged. Since the investors mostly rely on the interests as the basic demands, they will be eager to achieve success in the case of the makers, causing some of the makers to ignore the quality of the project and the bubble is serious. The current creator boom has a tendency to foam. Some creators are too impetuous. They dream of getting rich overnight, becoming famous, lacking the ability to down-to-earth, or not predicting the difficulties and obstacles they will encounter, leading to a bottleneck. I began to blame others and arrogant. There are also some creators who are full of enthusiasm but have no strict business logic and profit expectations. Regardless of the project, without careful planning, it becomes a “self-sufficient” entrepreneur who talks about feelings, dreams and passions. Entrepreneurship presents a trend of homogenization and bubble. When entrepreneurship became a kind of "fashion" and "sports", many people rushed to make entrepreneurship a speculative act. The motivation for entrepreneurship came from the thirst
for wealth and fame.

5.5 The Enlightenment to Our Country from the Cultivation Experience of Foreign Creator Culture.

Western developed countries have gone through a long period of exploration, and the cultivation of customer culture has achieved remarkable results. Summarizing the successful experience of creating a culture atmosphere for the first country to create a culture for the first time is helpful to provide a reference for the cultivation of our culture for the second generation. To carry forward the culture of creating customers and foster an atmosphere of "national innovation", we need to adhere to the principle of "self-centered, external for use", base ourselves on the original, absorb foreign, and face the future. Based on China's national conditions, adhere to the direction of socialist innovative culture, take root in the group of creators, and tap innovative consciousness from the source. We should effectively address consumer demand and market pain points, and strive to unify the speed of development with the quality of development. Creator culture is a culture of innovation and Entrepreneurship with creator as its source. The quality of Creator education plays a key role in the cultivation of creator culture. Developed countries have made great achievements in vigorously developing education in the process of revitalization. To do a good job in creating customer education is conducive to the development of innovative thinking and ability of the public, and provides an internal driving force for the transformation of innovators to creating customers.

6. Summary

The emerging and entrepreneurial tides emerging in the emerging information technology field around the world are increasingly showing open and synergistic mesh features in various fields. The rapid iteration and upgrade of the "Internet +" format model increasingly relies on the speed and efficiency of channel control and access to information resources. Therefore, when formulating industrial economy, science and technology and cultural innovation policies, developed countries are focusing on comprehensively ensuring the open access and utilization of information resources from the macro, meso and micro levels. China should also actively build relevant policy frameworks to pave the way for future technological innovation and economic transformation.

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