

THE INNOVATIVE DEVELOPMENT OF SMALL AND MEDIUM-SIZED ENTERPRISES

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The article considers some theories and methods of innovation economics, industrial economics and other theories, assuming that small and medium-sized enterprises can develop only through innovation. The innovation mechanism, innovation strategy, innovation ability and cluster innovation impact on the development of small and medium-sized enterprises are revealed. Based on the empirical analysis of the innovation and development of Swiss SMEs, certain measures to promote the innovation and development of small and medium-sized enterprises, and realize the innovative development of small and medium-sized enterprises are suggested.

Key words: innovative development, small and medium-sized enterprises (SMEs), innovation strategy

This article combines the research of SMEs' innovation theory, business theory, and cluster theory, and takes SMEs as the main subject of innovation as research objects, forms the SME innovation motivation mechanism, enterprise innovation strategy, development model, and the role of SME clusters in the development of SMEs. The research conducted in this article aims to guide the practice with theory and verify the theory with practice, with a view to providing important reference value and theoretical basis for the local government to improve the research on the innovation and development of SMEs.

SMEs are the cornerstone of the market economy and a barometer of the market economy. At the same time, SMEs are the cradle of entrepreneurs and the reservoir of employment. However, on the other hand, small and medium-sized enterprises are generally small in scale, weak in strength and weak in market competition. The innovation and development of small and medium-sized enterprises are restricted by many factors. This article attempts to absorb the theory of innovative systems.

The innovation capability as a system, which overall function is by no means a simple superposition of the combined elements, but synergy and coherence in interaction and mutual restriction. The evaluation of innovation ability cannot be limited to only one aspect or link of innovation. Innovation ability depends not only on the technological innovation ability of the enterprise, but also on non-technical innovation ability, such as management ability, decision-making ability, support ability, etc. Therefore, the evaluation of SMEs' innovation ability should be based on the entire innovation process. This paper proposes for the first time to build an innovation ability evaluation system based on the innovation process of SMEs. The evaluation of SMEs'

innovation ability is a useful supplement and improvement, which is conducive to the development of SMEs' innovation ability theory.

By constructing the SMEs' innovation driving mode, it reveals the driving force of SMEs' innovation. By studying the innovation strategy and development mode of SMEs, it promotes the sustainable development of SMEs. By studying the innovation capabilities and enterprise clusters of SMEs, it is beneficial to improve the innovation performance and competitive advantages of SMEs, and provide new ideas for the development of SMEs.

In today's financial turmoil, how to "survive" and "develop" is a problem that every SME is facing. It is beneficial to SMEs to reduce business risks and achieve a win-win situation.

The SMEs' innovation strategy can be identified from different angles. For example, it can be divided into three basic types: independent innovation strategy, imitative innovation strategy and cooperative innovation strategy according to the source of technology. According to the competitive situation, it can be classified into leading innovation strategy and following innovation strategies. Strategies can be divided into offensive strategies, defensive strategies and dependent strategies according to their behavior. According to different technical levels, we can distinguish progressive innovation strategies and fundamental innovation strategies. According to market competition strategies, different markets could be analysed.

At present, the innovation and development strategies of small and medium-sized enterprises are still mainly based on technology introduction, and they are not pioneers of new technologies. Focus on progressive innovation to avoid innovation risks. New start-ups mainly focus on product innovation, lack of continuous innovation ability, and focus on cooperative innovation to save research expenses.

Using innovative economics theory, combined with advanced experience at home and abroad, to build an innovative strategic path for SMEs based on dynamic capabilities. It is clearly pointed out that there is no set pattern for enterprise innovation. What is important is that small and medium-sized enterprises should adopt an innovation strategy suitable for them at different stages of enterprise development according to their own conditions. Using the basic principles of innovation economics, it reveals the interaction and selection rules of SME' innovation strategies, points out that innovation strategies need to be integrated and infiltrated with each other, innovation must be arranged in a reasonable time sequence, and innovation strategies are complementary and progressive.

SMEs should choose the corresponding development mode according to the selected innovation strategy. The choice of development mode is good or bad, and the success or failure will also directly affect the survival and devel-

opment of SMEs. At this stage, small and medium-sized enterprises should adhere to the development model of symbiosis with large enterprises, take the path of professional development, use the borrowing model, the international development model, choose new business models, alliance strategy models, and embark on a new path of innovation and development.

From the perspective of ecosystem, it is possible to suggest “Enterprise Ecosystem Development Strategy”. Like the species in the natural ecosystem, every enterprise in the enterprise ecosystem must ultimately share the fate with the entire enterprise ecosystem. Therefore, when formulating the company strategy, we should not only focus on the company itself, but also consider the overall situation to understand the health of the entire ecosystem and the role of the company in the system. The ecosystem-based strategy not only benefits the company itself, but also benefits all system members, thereby forming a virtuous circle on the ecological chain and enabling the company to continue its healthy development.

For instance, to promote small and medium-sized enterprise innovation activities, the Swiss federal government set up a special national innovation fund independent legal institutions, the national committee of technological innovation (KTI), aiming to establish the cooperation of production, study and application research and technology development. The focus of KTI’s work is precisely on helping small and medium-sized enterprises to tackle the two key problems of capital and talent.

The specific approach of KTI in promoting innovation activities of small and medium-sized enterprises is to use the self-built “science and technology transfer Support system” (WTT-support) to provide enterprises with whole-process services including “enriching innovation plans, promoting innovation objectives, helping to find partners until the formation of cooperation projects, and providing financing”.

Famous Swiss companies rely on their own funds and personnel for self-sufficiency to innovate, mainly because of the power of the government. Therefore, its innovative development model is clearly branded by the government. Innovation and development mainly go through three processes: one is the formation of the project, the other is the gathering of power, and the third is the strong financial support. The success of small and medium-sized enterprises in carrying out innovation activities is also closely related to the above-mentioned three factors.

In order to solve the problem of innovation funds for small and medium-sized enterprises, the Swiss innovation and technology commission has adopted the method that the government invests one half, the enterprises invest another half, and even requires the scientific research institutions undertaking the projects to raise 20 – 30% by themselves. This approach not only

increases the proportion of national investment in scientific and technological innovation, and plays an effective supporting role in the development of innovation activities of enterprises, but also avoids the self-packaging behavior of enterprises or scientific research institutions in order to obtain national innovation funds, and facilitates the rational use and effective management of innovation funds by each party.

Summarizing the above-mentioned issues, it is possible to describe the innovation development model of small and medium-sized enterprises in Switzerland (it is possible to use this experience in other countries): independent innovation is reflected in the formation of innovative ideas of enterprises and the investment of their own funds. The development of innovation activities relies on the participation of different institutions and the success of innovation is based on the effective industry-university-research cooperation formed by the support of government and society.