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## Thoughts for the promotion of technological innovation in SMEs

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### ABSTRACT

Since the reform and opening up, China's small and medium-sized enterprises SMEs has developed rapidly and made a positive contribution for the national economic construction and social development. However, currently SMEs is weak in technology innovation, especially in the core technology of IP technologies have also lack of appropriate technical capabilities, coupled with the small and medium enterprises have their own limitations, China's SMEs have not yet realize or become the subject of technological innovation that many SMEs and broad market prospects missed a rare opportunity for development, and some even have to accept life and death decisions of market shocks passively. Through understanding of the technological innovation capability of SMEs, the paper research and develop countermeasures and suggestions in line with our SME technology innovation, having important theoretical guiding significance for sustainable development of China's national economy and SMEs.

### KEYWORDS

Technological innovation; Government policy; Financial institutions; Technology guide.



## INTRODUCTION

The sustainable development of SMEs played a very important component in our national economy, has become an important support to promote the rapid growth of China's national economy and stimulate technological innovation of enterprise. Technological innovation is the driving force and source of strength inexhaustible healthy growth of SMEs, their core competencies also be fully reflected through technological innovation. China's SMEs must recognize the needs to enhance the technological innovation capability, continue to study and develop new technology, and always maintain a strong technical innovation ability, and only in this way can stand out in the fierce competition in the market and remain invincible.

### **THE MAIN REASON FOR THE SLOW DEVELOPMENT OF SMES CONSTRAINTS - TECHNOLOGICAL INNOVATION CAPABILITY IS WEAK**

Currently, the total number of SMEs in China accounts for above 90% of China's enterprises, which value created by their products and services directly or indirectly accounts for over 60% of GDP, and has become an important part of our revenue sources, while they play an essential role in solving the relevant aspects such as urban employment, technology and other patented invention. It can be seen that SMEs have become the important source to national economy and promote the rapid development of China's revenue growth, but also become a major position of technological innovation capability of rapid development.

But at present, China's SMEs have congenital deficiencies in the production scale, investment business risk, financial management, financing and technological innovation capability and many other issues, so SMEs must consciously aware of the importance of technological innovation, making strengthen technological innovation capability as a prominent position in the development of enterprises, planning the development of strategic in line with business development, promoting the sustainable development of enterprises.

### **A FEW SUGGESTIONS TO PROMOTE CHINA'S TECHNOLOGY INNOVATION FOR SMES**

#### **From the perspective of government policy**

The eighteen CCP Congress report sharply proposed, technological innovation is the strategic support to improve the social productive forces and the comprehensive national strength, and must be placed at the national overall development. At the same time, the report also clearly pointed out that deepening reform of technological system, accelerating the construction of the national innovation system and construction of enterprise as the main body, the market as the guidance, the combination of technological innovation system.

1) The government must continue to implement the relevant country policies which have issued to promote SMEs in technological innovation, and actively promote the relevant supporting policies and implementations, further strengthen the role of the government in coordination, improve relevant coordination mechanisms, organize and mobilize all social forces to promote sustainable development of SMEs in the present and in the future for a long period of time.

2) The government should establish the scientific research system of technological innovation for SMEs, actively build "research" collaboration technology platform to promote the industrialization of high-tech SMEs in the process of transformation. Following the development of technological innovation to their own unique rules, establishing and improving the SME technology innovation intermediary service agencies to provide technical support for SMEs and information services and other integrated services to the greatest extent possible to adapt to changes in the impact of the market economy.

3) Continue to formulate and improve SME-related technological innovation policies and regulations, improve the high-tech achievement transformation mechanism, further improve the

management of science and technology innovation system, in order to protect the legitimate rights of SMEs technological innovation, and to mobilize the SMEs technological innovation activities of energy and enthusiasm.

4) The government should according to the characteristics of SMEs, actively develop the specialized support and incentives for SMEs technological innovation. On the basis of free assistance, interest payments on loans, financing service, the increased subsidies for SMEs project acceptance, risk compensation, incentives instead of subsidies and other means, and gradually formed a long-term funding system, improve the policy including tax preferential system.

5) The government should further ease the financing difficulties of SMEs. To constantly improve the relevant financial services policies, encourage banks to set up specialized institutions to help SMEs financing, innovate existing financial products, but also should help enterprises to improve the financing environment for SMEs, supervise the implementation of the relevant financial policies to promote the development of SMEs, broaden its financing channels, further improve the financial lease and venture capital business risk policies to promote the construction of SMEs credit risk assessment and guarantee system, and actively provide financial services to meet the needs of SMEs characteristics, increased the proportion of the loan and the amount for SMEs.

6) The government should improve the protection of intellectual property and the whole society to grasp the concept of policies and regulations as the starting point to further improve the protection of intellectual property and the rules and regulations for the sustainable development of SMEs, especially to increase the protection of intellectual property rights of small and medium-sized industrial enterprises, while strengthening the protection and enforcement of intellectual property rights related to the behavior of the SMEs oversight and supervision, to effectively solve crimes related to the violation of intellectual property rights SMEs timely, in order to maximize the protection of the health and sustainable development of SMEs.

### **From the perspective of business managers**

Faced with fierce competition, SMEs managers must truly realize that they must enhance awareness of technological innovation of enterprises, rather than the future development of enterprises in the hands of government policies to stimulate and lead, must be done in the aspects of technology and management marketing etc. through technological innovation to improve the value chain of the enterprise products, to increase the added value of products, to win the sustainable development of enterprises by improving the product quality and efficiency.

1) Enterprise managers should actively take the initiative to understand the central and local preferential policies to support the development of SMEs and specialized organizations responsible for corporate R & D managers to participate in policy propaganda meetings held by government departments, to keep abreast of government policy towards SMEs and communicate conference spirit and the essence of the internal staff in order to encourage all employees of enterprises to participate in the process and practice of technology innovation.

2) The small and medium-sized enterprise managers should carefully study the state and local governments for technology innovation fund priority areas of support, while increase investment in R & D funding, by means of an external scientific and technological strength, helping enterprises planning development scheme and applying for patents, in order to reduce the risk of enterprise technology innovation fund application failure. Meanwhile SMEs should enhance the overall capacity of research to strengthen exchanges and cooperation between the industries and reduce the risk of a variety of uncertainties encountered in the process of technological innovation. Good cooperation relationships and strong technical team can enhance the ability of technological innovation faster.

3) The small and medium-sized enterprise managers should be aware of the protection efforts to strengthen the intellectual property rights of the enterprise itself, and actively cooperate with local patent authorities to assist enterprises apply for patents, and consistent with the legal representative of the enterprise to prevent the emergence of patent rights disputes and other related issues.

4) The SMEs access support by national or local government funds, should actively cooperate with the local government for the supervision, management and acceptance of the project, corporate managers can not only care about immediate interests, but should devote more financial and material resources, manpower for the development of new technologies. At the same time enterprises only assess the government successfully, will it be possible to continue to fund new projects reporting additional support for technological innovation, and enable enterprises to rapidly enter the path of sustainable development.

5) The small and medium-sized enterprise managers should attach great importance to technical innovation external environment, effective use of the important role to improve the economic efficiency of enterprises and to promote the sustainable development of enterprises, and actively cooperate with relevant external agencies to understand government policies, financial support information, information technology service information to enhance the enterprise's own technology innovation ability, enhance external support for more effective power.

### **From the perspective of social and public services**

Due to the economic strength of SMEs is relatively weak, the ability to withstand market risks is relatively poor, lacking of the government macro management and regulation, as well as SMEs face unfair treatment of macroeconomic policy, harsh competitive environment, technology innovation capacity of poor and other related issues. It is necessary to provide a good environment of social and public services, to enable SMEs to display their talents in a favorable environment to adapt to the requirements of the market economy.

1) Banks and other financial institutions should establish a database archives of SMEs, the relevant information of the jurisdiction of SMEs and enterprise successful cases are summarized, especially the information of financial management and financing, so that to do business as refers to the palm. While banks should combine with other financial institutions to launch the SMEs growth plans, in accordance with the established corporate standards will be classified according to different categories corresponding to different financial services. Regularly carry out training on the management of SMEs financing to help them understand the banks and other financial institutions on the application requirements and procedures for SMEs in terms of financing, improve the management level of financing and financial management of SMEs.

2) Business and other sectors should take SMEs related requirements and information services for effective integration to help prepare all kinds of project preaches, relevant technical presentations, financial institutions and bilateral business meetings, to help enterprises understand the market situation, grasp the market dynamic development. Creating favorable conditions for SMEs and relevant financial institutions to alleviate information asymmetry contradiction, Federation should be actively screened for qualifications, development potential of SMEs to recommend to financial institutions to help them dig and cultivate potential customers to effectively prevent and reduce market risk, while advantage between the SMEs industry associations, financial institutions and enterprises to promote good win-win situation.

3) The Patent Office should further establish and improve the welfare of intellectual property counsel for SMEs cluster system, trying to moderately reduce annual costs of various types of patented technology, easing the financial burden of SMEs, enhancing the awareness of intellectual property protection of SMEs, expansion related publicity of protected IPR, enhancing the ability of SMEs for creation of intellectual property, use, protection and management. While helping to strengthen the building of enterprise information, reduce the cost of market development for SMEs, play an active role in intellectual property rights in technological innovation activities, relying on industry association initiative to expand its publicity.

4) Increasing support to SME intermediary organizations which in the industry have good reputation to strengthen the intermediary organization coordinated ability and enhance the vitality of intermediaries. Make full use of advisory services for SMEs, to maintain good communication and intermediary service agencies and managers of SMEs, specialized symposium held regularly for a

variety of problems that exist in SMEs, providing technical advice to SMEs innovation activities and guidance. For all kinds of specific problems of SMEs manifested through careful study of countermeasures, and gradually developed a new type of intermediary services. While encouraging local governments establishing technological consulting institutions and the establishment and perfection of the science and technology intermediary service network system, so as to promote the sound development of technology innovation of SMEs

5) Public service organizations should actively build a service platform for dialogue between SMEs and government, the interpretation of various preferential policies issued by the government for SMEs to maintain close communication and contact between the government and enterprises. Technical innovation for SMEs in the decision reference and interpret the relevant policies are provide though activities. It should also be arrangements for the exchange of hotline, by the relevant technical advisory team of experts dedicated to the development of SMEs operating in emerging technical issues to provide professional guidance to SMEs to promote health and sustainable development.

## CONCLUSIONS

In a word, the promotion of technological innovation of SMEs in China requires both the government's macro-control management, but also need to adjust the enterprise micro. Each must be fully aware of the importance to enhance technological innovation, to fully grasp the characteristics of the industry itself, the allocation of internal resources, the rational allocation and utilization of available resources, actively carry out exchanges and cooperation with the financial services structure and the science and Technology Agency, and effective use of technological innovation external environment, enhance their level of technological innovation and enhance the risk of their own to deal with uncertainty in markets, promoting enterprise and orderly, healthy and sustainable development.

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