

Research and Thoughts on Constructing the Science and Technology SMEs' Innovation and Entrepreneurial Environment

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Abstract. Since the party's 18th National Congress, General Secretary Xi Jinping has issued a series of important speeches around scientific and technological innovations, which sparked the ideological light of dialectical materialism and historical materialism. Conscientiously studying, profoundly comprehending, and fully implementing the important expositions of General Secretary Xi Jinping on scientific and technological innovation are of great theoretical and practical significance for the promotion of sustained and healthy economic and social development, success in building a well-off society in an all-round way, and realizing the great rejuvenation of the Chinese dream of the Chinese nation. From the SME for the study, in-depth implementation of innovation-driven development strategy, innovation and entrepreneurship aggregation and integration of various resources, build a service platform for small and medium high-tech innovation and entrepreneurship, to stimulate the enthusiasm of SME innovation and entrepreneurship, innovation and entrepreneurship launched The boom has created a powerful engine that promotes economic development, transformation and upgrading, and has created a new mechanism for providing technological support to the public .

Introduction

Technology-based SMEs are the source of technological innovation vitality, the foundation of the entire high-tech industry, the main force for achieving technological leapfrogging, and one of the important supports of Zhifan's economy. After the country and medium- and long-term science and technology development plans were promulgated, the entire country has paid more attention to enhancing the ability of independent innovation of enterprises and building innovative countries. The key to realizing this strategic move is to give full play to the small and medium-sized technology. However, since thereform and opening up, we have been very embarrassed to see that there is not a large industry in the world. Its leading technology, leading design, leading brands, and leading services are pioneered and invented by our Chinese companies. Why do many Chinese companies are striving to become bigger and stronger, but in the almost unsuccessful years of reform and opening up, many companies have witnessed a sensation and sensation, but almost all of them have finally fallen on the road to growth. . Is this the fault of our system, the lack of capabilities, or the ills of thinking and the culture? This article from the enterprise under different institutional environment, policy environment background view, explain the huge difference in the performance of its business, from innovation, and the future status of the enterprise rely on innovation and entrepreneurship development platform to provide a new direction.

The Characteristics of Science and Technology Smes

Technology-based SMEs are characterized by high value, high risk, high added value, high growth, and high knowledge. Technological innovation is the core feature of innovative SMEs. Not only innovative SMEs and large companies have significantly different innovation characteristics, but also their growth model and life cycle are significantly different from those of large companies.

Establishment of a national innovation system, take the road of innovation-oriented country, the independent innovation capability is the key. While SMEs, especially in science and technology-based SMEs, is the main carrier of independent innovation. According to a survey of the

SME sector, in the case of a competitive disadvantage as well as resources and skills of SMEs showing a strong momentum and innovative ideas, the number of patents for SMEs on a global scale is big business 10 Times, the introduction of innovation into the market is 27% faster than large companies. In the United States, the per capita innovation of SMEs is about twice that of large companies. In Japan, half of corporate technological innovation is carried out by small businesses. American scholars study Scherer, Hamm Baylor and others show that the role of promoting technological innovation, the role of SMEs may be greater. Although SMEs are not as large enterprises, but because of its flexibility, specialization and facing greater competitive pressures and other characteristics with the transfer, technology research and development, working capital and other past and anti-risk ability to collect information, in technological innovation aspects but also has unique advantages, namely organizational arrangements flexible and elastic, easy to accept innovation under the pressure of competition, efficiency and innovation in innovation time Shamming significantly better than large enterprises. After the introduction of venture capital funds, a large number of high-tech projects have emerged in the form of small and medium-sized enterprises, which have surpassed Dajinsheng in terms of innovation speed and efficiency. Once the innovation mechanism of SMEs is activated, the innovation power and activity level it stimulates are incomparable for large companies.

The Life Cycle of Science and Technology Smes

Life cycle "Corporate life cycle", the development of the company is in line with the growth curve in biology, so you can use the "life cycle" view in biology to see the company. There are many ways to divide the life cycle of a company. There are four stages, five stages, or ten stages. For example, the four stages refer to the seed period, the initial period, the growth period, and the mature period. Some high-tech zone management departments in China divide the life cycle of high-tech enterprises into five phases. These five phases refer to the seed phase, start phase, growth phase, expansion phase, and maturity phase. The definition of the above five stages is as follows.

(1) Seed stage. The company has just set up or is planning to build, has not yet formed products, only has laboratory results, samples and patents or other technologies that can be transformed.

(2) Starting stage. The company already has a product that is in its infancy and has a framework-based business plan. The management team is not perfect.

(3) Growth stage. The company's products and services have entered the development stage and have a small number of customers, and the cost of products and services is relatively high. Sales revenue is not high. At the end of this stage, the company completed product stereotypes and began to implement its market development plan.

(4) Expansion phase. As enterprises began to sell products and services in batches, their income began to increase significantly. At this stage, enterprises gradually form an economic scale and occupy a certain market share.

(5) Mature stage. The company's sales revenue is higher than its expenditure, and its net income is maintained at a certain level. Enterprises can rely on their own strength to develop.

In fact, it is difficult to clearly divide the life cycle of a specific company into the above phases. Many enterprises have complex situations. In the course of their continuous development, several stages of characteristics often appear at the same time. Therefore, based on the actual situation of China's science and technology SMEs, this study divides the company's life cycle into six phases: seed phase, start-up phase, growth phase, maturity phase, decline phase, and metamorphosis phase.

Main Problems in Innovation and Entrepreneurship of Smes

The Group Size is Small and the Structure is not Reasonable Enough.

The scale of science and technology enterprises is equivalent to the level of economic development. There is still a certain gap between advanced regions with similar location characteristics. Annual sales revenue The small and medium-sized S The number of outstanding SMEs with more than 100 million yuan is less. Second, there is a lack of high-level innovation and entrepreneurial talents who

can lead and establish SMEs. Highly educated as a core force for innovation and entrepreneurship. High professional titles and highly skilled personnel are seriously insufficient. Third, the public service capacity is not strong, and the ability to incubate services in depth needs to be improved. The number of innovation and entrepreneurship carriers and intermediaries serving small and medium-sized SMEs is relatively small. Weak service capabilities. The ability to incubate services such as technology entrepreneurial guidance services and investment and financing services needs to be further improved.

There are Differences in the Technical Sources of Small and Medium-Sized Technology Enterprises.

Large-scale enterprises pay attention to adopting advanced technologies of foreign companies, and at the same time attach importance to technical cooperation with domestic scientific research institutions. Small and medium-sized innovative companies pay more attention to the practicality of the technology itself when selecting the first technology source due to capital, market, and technical applicability. They often adopt mature technologies from foreign or domestic companies, only domestic and foreign companies. In the absence of corresponding technology supply, it turned to seek technical support from scientific research institutes and universities, showing a lack of trust in domestic institutions.

The Financing Needs of Small and Medium-Sized Technology Companies are Insufficient.

A group of companies with leading technologies, business model innovations, successful transformations and upgrades, and strategic emerging industry-oriented enterprises continued to maintain a relatively rapid growth rate. The profit rate has been increasing year by year. Not only has it been supported by various government policies, it is also a key bank lending target. Among them, the technology-based companies in the initial stage have great potential for development and more urgent financing needs, but most "excellent" companies are in good financial condition, can meet their own business development needs, and are more cautious about the situation, and their funding needs remain unchanged. Or it has contracted, leading to insufficient effective credit demand.

Establish the Path of Innovation and Entrepreneurship Service Mode for High-Tech Smes

Innovation and Entrepreneurship Program.

Relying on the China Innovation and Entrepreneurship Competition, the "Entrepreneur Mentor" program was implemented. The Organizing Committee of the China Innovation and Entrepreneurship Contest can formulate guidelines for the implementation of guiding entrepreneurial tutors. The competent science and technology departments in various regions can formulate the implementation guidelines for entrepreneurship tutors in the region in light of the actual situation in the region, clarify the terms, responsibilities and obligations of the entrepreneurial tutor, and reward and punishment measures. , circulation methods, etc. From the country to the local level, select and employ any multi-level entrepreneurship tutor team composed of successful entrepreneurs, senior investors, senior financiers, outstanding management consultants, and outstanding scientific and technological workers to serve participating companies and teams. Throughout the season, we will give full play to the leading role of entrepreneurial tutors and implement a combination of collective counseling and precision matching to provide participating companies with personalized counseling services such as expert advice, financing counseling, and project promotion, helping entrepreneurs determine entrepreneurial goals and implement business plans. To help entrepreneurs succeed. A good entrepreneurial tutor is also an excellent evaluation expert. Scientific and technical competent departments at all levels can select excellent entrepreneurial tutors in the course of strengthening the construction of the assessment expert team. By implementing business mentor program, cum enhanced business services talent team building, team building project has strengthened the selection of experts. At the same time, the state and local governments must fully communicate and strengthen the exchanges between the national entrepreneurship tutors and local entrepreneurial tutors, and establish a counseling mechanism for entrepreneurs in different places.

Entrepreneurship College Plan.

Relying on the China Innovation and Entrepreneurship Competition, the "Entrepreneurship College" program was implemented. In accordance with the principle of "government guidance and market operation", the establishment of entrepreneurship colleges is underway. The faculty strength of the college is composed of supervisors, entrepreneurial mentors, and part-time teachers of local colleges of innovation and entrepreneurship. The daily operating agency is composed of staff from all levels of the innovation and entrepreneurial competition organizing committee. Throughout the season, new entrepreneurial training activities such as entrepreneurship salons, entrepreneurship seminars, entrepreneurship training camps, and theme forums are regularly conducted to cultivate entrepreneurial spirit and innovation culture. For innovation and entrepreneurial process common problems, the creation of thematic seminar, study design and practical courses, innovative companies regularly recruit outstanding management team and staff implement public training, help entrepreneurs to enhance entrepreneurship.

Financing Services Plan.

Relying on the China Innovation and Entrepreneurship Competition, the "Financing Service Plan" was implemented. "Financing plan" to build entries financing service platform as the basis, through the development of project financing tournament information service platform, in accordance with the "government guidance, public service, network exchange, resource sharing" principle, the integration of government, all types of banks, the highest vote The resources of institutions and intermediary service agencies, and the collection and distribution of information channels. Strongly build and collect basic databases such as "Financial Institutions Information and Financial Products Database", "Entry Project Information Database", "Guarantee Institution Guarantee Information Database", "VC Institutions Information Database", "Corporate Credit Information Database", and "Consultation" "Database for Service Organizations" and "Database for Companies to be Listed and Participating Enterprises" provide a comprehensive service platform for all parties involved in financing, helping companies and teams to provide financing and loan services, guiding social capital and financial capital to support entrepreneurial activities, and continuously expanding venture capital investment. The scale of funds, to solve the problem of venture capital financing.

Conclusion

This paper constructs an energy efficiency model that reflects the innovation and management, growth and development of SMEs in science and technology, and reveals the modelling mechanism between entrepreneurial quality and business capabilities, including entrepreneurial and organizational capabilities, business performance, innovation intentions and business strategies. Its internal connection. This energy efficiency model profoundly reflects the significant impact of the entrepreneurial quality of innovative SMEs on their operating capabilities, the impact of entrepreneurial capabilities on organizational capabilities, the impact of corporate operating capabilities on business performance, and the willingness to innovate and business strategy to business operations. The interaction of performance. The energy efficiency model established in this study shows that the operational performance of innovative SMEs is determined by the interaction of operating capability, innovation willingness, and business strategy. The company's operating capability is the basis for determining business performance, and the innovation intention and business strategy have Obviously regulating the interaction effect changes the direction and size of the influence of the enterprise's ability on the company's performance.

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