Analysis on the Current Situation of Technological Innovation of Small and Medium-sized Enterprises and the Demand of Legal Policy

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Abstract
Take small and medium-sized enterprises in Zhejiang Province for example, this article analyzes the current situation and the demand of the legal requirements of technological innovation of small and medium-sized enterprises, through conducting empirical research. Science and technology enterprises are generally small scale, most of them have certain ability to innovate, but the overall level of research and development needs to be improved. The existence of several problems such as, inadequate intellectual property protection, the difficulty of introduction of high-end talents, and the unsatisfying results of the industry university research cooperation, requires local scientific and technological legal system construction strengthen legislation on the financial support, information services, green technology innovation and intellectual property rights protection, and called for improving the scientific and technological management of local government.

Keywords: Small and Medium-sized Enterprise, Technological Innovation, Legal Requirements, Investigation and Analysis

1. INTRODUCTION:
Technological innovation is the fundamental driving force and an important way of the small and medium-sized enterprises development, and strengthening the construction of local scientific and technological legal system is one of the most effective means to improve the local science and technology management and promote the development of small and medium enterprises innovation ability. Compared with the strategic position of scientific and technological innovation in economic development, the legal system construction of local science and technology is far from enough. The key to improve the legislation is the degree of refinement. In doing so, it is necessary to make a thorough investigation on the practical requirement for scientific and technological legislation of small and medium enterprises.

Zhejiang province is one of the most powerful areas of technological innovation capability of enterprises in China. The team sampled entrepreneurs, corporate executives, technical director of small and medium enterprises in three places of Hangzhou, Ningbo, Cixi and issued a total of 100 questionnaires. The recovery rate was 98%. Most of enterprises have been investigated concentrated in the economic and technological development zones or industrial parks of the three place. In addition to issuing questionnaires, the research group received a number of important views and information feedback through interviews for local legislation and government departments, experts and scholars, entrepreneurs, etc. Now the research and analysis are as follows.

2. STATUS QUO OF TECHNOLOGICAL INNOVATION OF SMALL AND MEDIUM-SIZED ENTERPRISES:

1) The Current Characteristics Of Technological Innovation Capability Of Small and Medium Enterprises
Science and technology enterprises are generally small scale. Among the research objects, there are 62 scientific and technological enterprises and 36 non-tech enterprises, and the majority enterprises are those with employees less than 100 people, accounting for 59.2%, those with 100-300 employees accounting for 16.3%, those with 300-1000 employees accounting for 14.3%, those with 1000 employees or more accounting for 10.2%. Thus, the scale of scientific and technological enterprises is generally small, especially medical, new materials and other high-tech enterprises. The enterprises
which scale is large and the number of employees is more than 1000 people mainly concentrate on the manufacturing sector, such as drinking water machine equipment manufacturing industry.

A famous entrepreneur said in a lecture on technological innovation, "the gentleman loves money, and takes it in a proper way. Here 'the proper way' is innovation." The survey shows that small and medium entrepreneurs generally attach great importance to technological innovation, 83.7% of respondents believe that technological innovation is very important for the development of enterprises. Small and medium enterprises have realized that the innovation and development of the transformation and upgrading are the survival instinct of the enterprise, but also the inevitable development of its future. In particular, some conventional manufacturing industries need to boost now, and many companies are facing deadlock of the development.

Most small and medium enterprises already have a certain ability to innovate, which accounts for 67.3%. The small and medium enterprises which think their innovation ability is very strong account for 14.3%, and those with weak ability account for 18.4%. 79.6% of the enterprises have independent intellectual property rights (patents, technical secrets, etc.). But the high-end technology research and development is still lacking. 83.7% of the enterprises do not get or participate in the provincial and ministerial level key technology research and development projects. Only 14.3% of the enterprises have won scientific and technological incentives of the provincial and ministerial level. Therefore, the overall level of innovation is still weak, especially high-level R&D needs to be strengthened.

2) Analysis On The Obstacles Of Technological Innovation In Small And Medium-Sized Enterprises

What are the main factors that you think are the main factors that hinder technological innovation? (limited to 3 options), The top three answers are: the lack of intellectual property protection, the lack of technical innovation talents, and the lack of social atmosphere to encourage independent innovation, which account 59.2%, 40.8% and 30.6% respectively, and secondly are: the imperfect of the technology market, the difficulty of the university industry research cooperation, and the difficulty of resource acquisition (financing, land, examination and approval, etc.). Among them, the lack of intellectual property protection and the lack of social atmosphere to encourage independent innovation are external factors of technological innovation, and the lack of technical innovation talents is an internal factor.

The survey of another question shows that the biggest difficulty encountered in the practice of enterprise technological innovation is the lack of talents and shortage of funds, and the two items account for 85.7% in total. Obviously, the lack of technological innovation talents has become the primary factor in the current small and medium enterprise technology innovation. Talent is the core element of enterprise technology innovation. Small and medium enterprises in Zhejiang province are mostly concentrated in the economic and technological development zones or industrial parks, which is difficult to attract high-tech talents. For example, a company to develop smart robot industry had to introduce technical talents from Multi-National Corporations in Shanghai, because their family members are in Shanghai, they are not willing to work in the remote field for a long time, even if offering higher salaries. To retain the high-end talents, the company has to set up a branch office in Shanghai. However, on the other hand, the enterprise has not paid enough attention to the talents. The survey shows that many employers are willing to invest in the plant, equipment, mold, but unwilling to invest in talent and staff.

Industry-university research cooperation is an important way to obtain technical support for small and medium enterprises. The survey shows that 40.8% of the enterprises have been projects of industry-university research cooperation. But the results of the current research cooperation are not satisfactory. "What is the main problem of the conversion of the current scientific and technological achievements that you think? (limited to 3 options) ". The top three answers are: lack of strong organization and coordination, division, regional segmentation, industry segmentation serious (46.9%), results of the transformation of the main body are not clear, the main body of results transformation is not clear and enthusiasm of conducting results transformation is not high (46.9%), the enterprise's own conditions (lack of engineering experience or ability) can not make the transformation successful (40.8%), and followed by the lack of investment in enterprise funds, scientific research away from the real situation without business conversion value, as well as the imperfect development of scientific and technological intermediary service organization and one-fold
service type and structure, accounting for 32.7%, 26.5% and 16.3% respectively. Besides, the survey shows that the main forms and channels for small and medium-sized enterprises to promote science and technology innovation achievements are as follows in sequence: forum exhibition, industry associations, media, training courses, and relying on construction of science and technology promotion center by provincial departments.

3. ANALYSIS ON LEGAL REQUIREMENTS OF THE SMALL AND MEDIUM ENTERPRISE TECHNOLOGY INNOVATION:

At present, the main body status of enterprises in the national innovation system is still not outstanding. Some respondents believe that the current status of the small and medium enterprises in the national innovation system is partly high, accounting for 35.4%. 27.1% says the status is higher, 35.4% believe that the status is not prominent, and 10.4% believe that the status is very low. So it is very important and necessary to protect the technological innovation of small and medium-sized enterprises through legislation. The point is how to further improve the local scientific and technological legislation? Local scientific and technological legislation should be made according to the different economic development level, industrial structure, geographical position, natural resources and human environment, so that the legislation has a distinct local characteristics, in the promotion of local economic development, scientific and technological level, independent innovation ability and so on to play its due role.[2]

The satisfaction degree survey of the current technical innovation policy environment shows that the answer "more satisfied" accounts for 58.3%, "less satisfied" 27.1%, "very dissatisfied with the percentage of " 4.2%, as well as 10.1% says "unclear". It can be seen that the legal environment of small and medium enterprises technological innovation is still to be further improved. The local legislature and government departments can further improve the technology innovation of small and medium-sized enterprises from the following aspects:

1) Strengthening And The Refinement Degree Of The Legislation.
One respondent says that the existing legislation seems all related to the enterprise from the title, but with careful inspection, it is impossible to find the right provisions. Therefore, we must strengthen the research and refine the local regulations, and make them more suitable. Specifically, including: 1) to protect the financial support, information services and intellectual property rights legislation. In answer to the question of “what do you want most the government to do for your business to carry out scientific and technological innovation activities? (limited to 3 options)”. The top 3 answers are: tax relief and other financial support (45.8%), government financial funds (41.7%) and strengthening scientific and technological information services (39.6%); answers in sequence are the government procurement support and intellectual property protection, respectively accounting for 37.5% and 35.4%. 2) overall planning of scientific and technological personnel training. Legislation should consider how to promote the depth of cooperation between enterprises and colleges and universities, such as products and capital output, project and personnel input, the enterprise will be up on a deeper level of talents construction within enterprises by improving the school enterprise cooperation mode to help companies breaking through the bottleneck. 3) to improve the scientific evaluation system of technological innovation and to reduce the cost of business success.

2) Supporting For Green Technology Innovation.
According to the survey, 89.6% of the respondents recognize the need to strengthen environmental protection legislation, and admit that green technology research and development has become one of the key factors for the sustainable development of small and medium enterprises in the future. The small and medium enterprises technological innovation should pay attention to social benefits and sustainable development, and vigorously promote energy saving, pollution reduction, and create new environment and top brands. In doing so, the local scientific and technological legislation can at least be committed to the following items: 1) the development and promotion of new technologies; 2) the use of government procurement to stimulate research and development of independent innovation products; 3) to support trade and export of independent innovation products; 4) to update environmental regulation to encourage the application of green technology; 5) to emphasize the strategy of green technology enabling to improve the productivity and create new markets (across the country).[3]
3) Improving The Local Government Scientific And Technological Decision-making And Management.
The survey shows that the current local government' support to the small and medium enterprise technical innovation has gained basic recognition. There are several main feedback including: 1) local policy measures should be committed to create a fair environment for the small and medium enterprises. Some entrepreneurs said that the government cannot become the one of only serving a certain industry or some of the leading enterprises, the government should be presided over the fair to provide a good environment for all products, and then encourage innovation and entrepreneurship and give dividends. 2) in the new economic industry positioning and system innovation and other fields, the government should think about how to follow the situation in a timely manner, play a leading role, such as the development of science and technology finance, big data services, intelligent research and development. 3) for the "two hands" issue of market rule and government regulation, the local government should be to what degree to implement the resource allocation to the market and better play the role of "the other hand". Thus, as for the government's help, the fundamental is the technical support. In Germany, small and medium enterprises can get a lot of help to get the appropriate conditions. The government not only develop carbon emissions path rules for the enterprises, and often told them that "we will do our best to help you, especially if you have the need for access to technology." [4]

4) Requirements For Harmonious Unification Of Science And Technology Legal System.
The conflicting legal norms in science and technology legal system are still common by now, which is easy to cause waste of resources, such as duplication of technology investment and lack of technical cooperation and sharing between agencies. In this regard, it is needed to strengthen the legislative review and assessment, to prevent and reduce legal redundancy or overlapping. For example, the US Office of Management and Budget (OMB) is responsible for assessing information resources management practices of the administrative agencies, to find and identify potential duplication of the system in the government's legislative program, to review the support funds for online legislation and other relevant technical investment, as well as the same or similar work in other administrative departments, in order to help promote the link between departments to obtain information and achieve the maximum efficiency.[5]

4. CONCLUSION:
The perfect local science and technology legislation is the basic legal safeguard for the technological innovation of small and medium-sized enterprises. To perfect the legal system of local science and technology, it is needed to make full use of local legislative power, focus on changing the role of the government, enhance special status of small and medium-sized enterprises' technological innovation in science and technology service management, and promote the coordination of scientific and technological legislation in promoting technological innovation and industrial structure upgrading as well as environmental protection, to realize the sustainable development of small and medium enterprises and the improvement of the efficiency of scientific and technological legislation, and then promote the development of local economy and ecological civilization.

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6. REFERENCES:
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