Study on Market Innovation of Scientific and Technological Small and Micro-sized Enterprises Based on Long Tail Theory

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Abstract

Under the condition of market economy, all business activities of an enterprise must revolve the market, and in the innovation activities of the enterprise, market innovation is the core. Compared with large enterprises, small and micro-sized sci-tech enterprises have disadvantages in size and strength. Besides, they lack funds and perfect policy system, and also have high risk and survival pressure, which all force them to pay more attention to market opportunities and market innovation. Long tail theory is advanced to indicating the direction for small and micro-sized sci-tech enterprise to innovate and develop continually in the market competition of fragmented market competition. On the basis of summarizing the existing academic researches and combining with the characteristics of scientific and technological small and micro-sized enterprises, this paper extracts the main influence factors of market innovation of scientific and technological small and micro-sized enterprises, and then determines the weight of each factor by Analytic Hierarchy Process(AHP) to further reveal the relatively important degree of each factor in market innovation of scientific and technological small and micro-sized enterprises. Through the analysis of the application of Long Tail Theory on the market innovation of scientific and technological small and micro-sized enterprises, this paper further puts forward relevant suggestions.

Keywords

Scientific and Technological Small and Micro-sized Enterprises; Long Tail Theory;:Analytic Hierarchy Process (AHP); Market Innovation.

1. Introduction

In the fragmented economy era, the rapid growth of information and knowledge makes new technology emerge constantly. Accordingly, the product and the customer demands are more diversified and personalized than they used to be, and meanwhile, the transfer of our cultural and economic focuses is accelerating. As the main carrier of innovation and an important driving force of economic development, groups of scientific and technological "Little Giant" are rising, which are usually small in size, fast in response, strong in innovation ability, and thus show a good prospect of development. However, what is not optimistic is the large demand of enterprise capital, the strong intensity of talent, the fast change of market, the high requirement of technology, the high risk of investment, and the insufficient quantity of resources in all aspects, which all become great challenges when scientific and technological small and micro-sized enterprises try to achieve market innovation.

In the stage of market economy, all business activities of an enterprise must proceed around the market. Whether an enterprise can meet the market demand determines how far the enterprise can go in its development road. Varying degrees of market competition will exist along the entire life cycle of an enterprise, and only through market innovation, can an enterprise remain invincible in the competition. In the era of no shelf space limitation and other supply bottlenecks, Chris Anderson proposed the innovative concept of Long Tail Theory, which indicates a direction for the general scientific and technological small and micro-sized enterprises to innovate and develop continuously in the fragmented market competition, also, it has certain strategic significance for those scientific

and technological small and micro-sized enterprises that are in the process of developing the market innovation. Therefore, the study on market innovation of S scientific and technological small and micro-sized enterprises based on the Long Tail Theory is essential.

2. Literature Review

Management guru Mr Drucker stated that modern enterprise competition is not a competition among products, but among business models. And the business model of an enterprise should be optimized and refactored continuously in the market innovation activities to a large extent. Existing research doesn't form a clear and unified understanding towards the market innovation. In terms of the content of the market innovation, Axel Johne (1990) pointed out that the three main types of innovation activities in the enterprise development are market innovation, product innovation and process innovation, in addition, he putted forward that market innovation need to choose the best potential market through the market segmentation and research the customer preference at the same time in order to better serve customers and create values.

Zhou[1](2005) putted forward that not like the technology innovation, at the technical level, the market innovation does not necessarily use a advanced technology to be realized, but often through simple new technology or changes to the existing technology or transformation of business model. At the market level, what the market innovation stress are the demand of emerging market, the mining and offer of new customer value that is different from the mainstream market, enterprises pay attention to exploit new customers or market segment. This innovation is different from the pure geographic market expansion. Hang [2]et al. (2011) argued that the premise and foundation of disruptive innovation for an enterprise is to find the low-end or emerging markets ignored by big enterprises ,and provide a unique customer value combination for this part of customers.

Domestic scholars have also studied the market innovation. Among them, Huang Hengxue[3](1998) expounded methods of market innovation mainly from the market innovation source, market innovation point, market innovation domain, market innovation pattern and market innovation path, etc. Zhou Yanling, Xia Kan[4] et al. (2001) pointed out that the so-called market innovation is the process of achieving the market expansion, market share improvement, and enterprise economic goal realization according to their own advantages in the fierce market competition. Also, the biggest purpose of market innovation is conveying the "advantages" of an enterprise to its consumers or users to further influence and contribute to their purchase behaviors by adopting unique method in the shortest possible time. Wang Ruzhi[5](2005) analyzed the main points of market innovation and challenges of scientific and technological small and micro-sized enterprises from the perspective of marketing practice. He thought that the main challenges are from the change of seller's market to buyer's market, market multipolarity and modernization of marketing methods, which reveal that the present time is different over the past times.

In the fragmented economy era, the development of the Internet makes the market competition of current popular products increasingly fierce, and it also makes customer requirements more diversified and personalized. Chris Anderson made some comparison of sales data between traditional retailers and Internet retailers, such as Amazon, Google, eBay and Netflix, and then, he observed a statistical phenomenon in line with the law of large numbers, that is Long Tail Theory. The Long Tail Theory is interpreted as that when the fields and channels of goods store and display are wide enough because of cost and efficiency, the commodity production cost will decline sharply, and the individual can even undertake production. Meanwhile, when sales costs are low enough, so that the common market share of almost any products whose demand seemed to be extremely low in the past with poor sales can compete with the market share occupied by those best-selling products, even producing greater market efficiency. Thereafter, there are also many scholars have carried deep analysis on the principle of the Long Tail Theory. James Calado Christopher [6] Garfield (2006) thought that the core of Long Tail Theory is personality, that is to realize the personalization and satisfy the personalized needs. Companies that do not implement the strategy of Long Tail will surely lose the existing market, and those who just want to profit from the head market of the curve will

certainly miss the boat. Mr Jiang Qiping thought that for the Long Tail Theory, we should not only pay attention to the tail of the curve, but should reduce the cost through the core strategy of "small batch and more varieties". This theory is similar with the economies of scope of western economics in essence, but needs the support of IT technology, and in many traditional industries out of the digital industry the Long tail strategy can also be used.

In conclusion, the existing literatures have studied on the market innovation in many aspects, but no matter in domestic or abroad, the research is mostly too macroscopic and sweeping, and also does not systematically clarify how an enterprise should develop the market innovation activities, especially is little on the market innovation of scientific and technological small and micro-sized enterprises. For the Long Tail Theory, some literatures have elaborated it, but the study of application of Long Tail Theory is quite a few. In addition, research on market innovation of scientific and technological small and micro-sized enterprises combined with the Long Tail Theory is less. Based on this, this paper determines the weights of influence factors on market innovation of scientific and technological small and micro-sized enterprises by the Analytic Hierarchy Process (AHP), and proposes targeted suggestions for the market innovation of scientific and technological small and micro-sized enterprises combining with the concept of Long Tail Theory, which provides references for scientific and technological small and micro-sized enterprises that how to scientifically carry out market innovation in the fierce market competition, and has important practical significance in improving market innovation of them.

3. Analysis of Factors Affecting on the Market Innovation of Scientific and Technological Small and Micro-sized Enterprises

3.1 Extraction of factors affecting on the market innovation of scientific and technological small and micro-sized enterprises

Unlike traditional large enterprises, scientific and technological small and micro-sized enterprises have a unique growth pattern, and are more likely to suffer more risk in the process of growth than traditional large enterprises due to their small size, weak capital, little mortgaged property, etc. Therefore, whether a scientific and technological small and micro-sized enterprise can develop healthily and continuously depends not only the enterprise internal resources, capabilities, and conditions, but also on the external market environments. To be specific, the internal enterprise resources, capabilities and conditions include the grasp of market positioning accuracy, the understanding of customer demands for target market, the matching degree between products and customer requirements, and the understanding of the corporate management team level, etc., meanwhile, the external market environments include financial environment, market competition situation, policy support, etc. Only by balancing the effect of various elements comprehensively, can an enterprise make the right decisions in the market innovation practice.

3.2 Weight determination of factors affecting on the market innovation of scientific and technological small and micro-sized enterprises

Market innovation of scientific and technological small and micro-sized enterprises is an interrelation and interaction large system composed of various factors. In order to fully understand the overall situation of this complex system, one must carry on the analysis and study from different angles and different aspects, and consequently form the multiplicity of influence factors of market innovation in scientific and technological small and micro-sized enterprises. As the value status of each index in the evaluation subject is not identical, the reasonable determination of the index weight has very vital significance to ensure scientificity and objectivity of the final measurement results.

This study uses the AHP method and hires experts to grade on the influence factors obtained from the above analysis item by item and layer by layer. By establishing the judgment matrix, the influence weight of each layer's element on this layer and the influence weight of each layer on the market innovation of scientific and technological small and micro-sized enterprises are obtained, and it is further concluded the comprehensive influence weight of each factor on the market innovation of

scientific and technological small and micro-sized enterprises. In the establishment of judgment matrix, the elements in the same level are compared in pairs, and the comparison results are scaled in number 1 ~ 9. The specific meaning of each value is shown in table 1.

Table 1. Numerical scale meaning

C_{ij}	Level of Assignment Weightiness
1	Two elements of i and j are equally important
3	Element i is more important than j slightly
5	Element i is more important than j obviously
7	Element i is more important than j strongly
9	Element i is more important than j extremely
2、4、6、8	Weightiness of i and j in interval [1,3], [3,5], [5,7] and [7,9] respectively
Reciprocal	Given the ratio of the importance of i to j is Cij, the ratio of the importance of j to i is Cji=1/Cij

As the expert opinion is subjective, this study adopts the method of Liu Jibing [8](2013) and hires 13 more authority experts in this field. Geometric mean of all the judgment matrixes given by experts is conducted in order to offset most of the subjectivity, and finally, the comprehensive judgment matrix is obtained by rounding each element. The results are as follows:

$$C=\begin{bmatrix} 1 & 3 & 3 & 1 \\ 1/3 & 1 & 2 & 1/3 \\ 1/3 & 1/2 & 1 & 1/2 \\ 1 & 3 & 2 & 1 \end{bmatrix}$$

$$A1=\begin{bmatrix} 1 & 1/4 & 2 & 5 & 1 & 2 & 3 \\ 4 & 1 & 5 & 3 & 1 & 4 & 3 \\ 1/2 & 1/5 & 1 & 3 & 1/2 & 3 & 1/4 \\ 1/5 & 1/3 & 1/3 & 1 & 1/3 & 1/2 & 1/5 \\ 1 & 1 & 2 & 3 & 1 & 3 & 1/3 \\ 1/2 & 1/4 & 1/3 & 2 & 1/3 & 1 & 1 \\ 1/3 & 1/3 & 4 & 5 & 3 & 1 & 1 \end{bmatrix}$$

$$A2=\begin{bmatrix} 1 & 1/5 & 1/5 & 1/5 & 1/3 \\ 5 & 1 & 1/3 & 1/4 & 3 \\ 5 & 3 & 1 & 1 & 2 \\ 5 & 4 & 1 & 1 & 1/5 \\ 3 & 1/3 & 1/2 & 5 & 1 \end{bmatrix}$$

$$A3=\begin{bmatrix} 1 & 1/5 & 4 & 3 & 3 \\ 5 & 1 & 5 & 6 & 3 \\ 1/4 & 1/5 & 1 & 2 & 1/5 \\ 1/3 & 1/6 & 1/2 & 1 & 1 \\ 1/3 & 1/3 & 5 & 1 & 1 \end{bmatrix}$$

$$A4=\begin{bmatrix} 1 & 5 & 2 & 5 & 1 & 1/3 \\ 1/5 & 1 & 3 & 1/4 & 1/5 & 1/3 \\ 1/2 & 1/3 & 1 & 1 & 1/3 & 3 \\ 1/5 & 4 & 1 & 1 & 2 & 2 \\ 1 & 5 & 3 & 1/2 & 1 & 5 \\ 3 & 3 & 1/3 & 1/2 & 1/5 & 1 \end{bmatrix}$$

The weight of each factor and the comprehensive influence weight of each factor on market innovation of scientific and technological small and micro-sized enterprises are obtained by the Analytic Hierarchy Process (AHP) method, and testing by using SPSS software. The results are shown in table 2.

Table 2 Small and micro-sized sci-tech enterprise market innovation factors weights

Level	Primary Index	Secondary Index	Weight	Comprehensive Weight
Internal Influence Factors	**A1** Marketing and service factors(0.375)	Customer requirements change	0.170	0.064
		Market positioning accuracy	0.295	0.110
		Innovation consciousness of product and service	0.091	0.034
		Customer satisfaction and Loyalty	0.043	0.016
		Product compatibility with customer demand	0.155	0.058
		Channel promotion	0.069	0.026
		Customer relationship maintenance	0.178	0.067
	A2 Technology and development factors(0.156)	Product quality level	0.412	0.007
		Cooperativity of market and technology	1.180	0.028
		Innovation resource investment capacity	0.280	0.044
		Talent introduction situation	0.241	0.038
		On-demand customization capability	0.257	0.040
	A3 Organization and management factors(0.125)	Team management ability	0.221	0.028
		Entrepreneur ability	0.480	0.060
		Organizational flexibility	0.077	0.010
		Inter-departmental Coordination capability	0.073	0.009
		Organizational learning capability	0.149	0.019
External Influence Factors	**A4** Market environmental factors(0.344)	Financial environment	0.230	0.079
		Market competition condition	0.074	0.025
		Market risk level	0.105	0.036
		Potential customer demands	0.158	0.054
		Policy support	0.231	0.079
		Macroeconomic environment	0.203	0.070

4. Application of Long Tail Theory to Market Innovation of Scientific and Technological Small and Micro-sized Enterprises

At present, the economic foundation of small and micro-sized enterprises in our country is relatively weak, and the overall scientific research capacity is low, but the proportion of small and micro-sized enterprises in our country is the largest. According to the statistics, the ratio of the number of small and micro-sized enterprises to the total number of enterprises is 96% ~ 98%. Meanwhile, scientific and technological small and micro-sized enterprises play an important role in absorbing employment, expanding domestic demand and promoting innovation in science and technology. According to the data released by the national development and reform commission, the output value created by small and micro-sized enterprises in China accounted for 60% of national GDP and the paid taxes accounted for 50% of national revenue. In addition, according to the statistics of State Intellectual Property Office, small and micro-sized enterprises completed 65% of invention patents and more than 80% of new products development. However, small and micro-sized enterprises are also vulnerable groups and have high mortality and short life expectancy, which are common phenomenon around the world. Statistics data show that the average survival duration of small and micro-sized enterprises in our country is less than 3 years, it is not only related to the characteristics of small and micro-sized enterprise itself, but also associated with external environment. Unclear understanding of market conditions, inaccurate market positioning, inadequate innovation resources, weak financing ability and the lack of policy support, etc. are the causes that make the scientific and technological small and micro-sized enterprises always be a flash in the pan.

Combining with the above weights of influence factors of market innovation of scientific and technological small and micro-sized enterprises obtained by using AHP as well as the understanding of the concept of Long Tail Theory, this paper conducts analysis on the main factors that influence the market innovation of scientific and technological small and micro-sized enterprises in our country, and puts forward related suggestions towards the market innovation of scientific and technological small and micro-sized enterprises in our country by learning from the mature practices in foreign.

(1) Strengthen the market positioning accuracy

In the era of resource scarcity, due to the condition limitation of production, the personalized consumer demands do not have exposed. The advent of knowledge economy and network era breaks the bottleneck of production and circulation, meanwhile releases the personalized consumer demands, these scattered demands become a long tail with huge value. The appearance of Long Tail Economy makes it possible to produce non-mainstream products with small volumes. By reducing the acquisition costs of niche products to the maximum, the custom cost is reduced to the point of mass production, which solves the contradiction between the economies of scale and scope economy. In addition, through the search engine tools with collection and filtration function, it is more likely to guide consumers to find the products that are in conformity with their own needs. Network is a communication tool with low cost, and the consumer evaluation of products or services would affect other consumers' buying behavior, which will make more consumers focus on non-mainstream products and drive the demand focus shift to the Long tail market.

With the accelerating process of global economic integration, international division of labor becomes more detailed and transnational cooperation between enterprises has also been increasingly frequent. In the big economic stage, in addition to the conflict between large enterprises and big customers, supporting roles behind the scenes also play an increasingly important part. For the large number of scientific and technological small and micro-sized enterprises, they are in a weak position compared with large enterprises in various aspects like capital, technology, talent, etc. It is hard to avoid disadvantage if scientific and technological small and micro-sized enterprises confront with the large enterprises in the heated market competition. Master Drucker's Long Tail Theory avoids the increasingly competitive market with product homogeneity, and shifts the line of sight from leapfrog the competition to dig potential customer needs. Also, on the basis of filtering and restructuring customer values in different market segmentations, some valuable elements are creatively added,

industries and market boundaries are rebuild, and the originally unknown and ignored customers are developed as target customers.

Long Tail Theory instructs that scientific and technological small and micro-sized enterprises should focus on the 80% tail of market, and should find a new path in the unknown new market space with huge business opportunities, but not be satisfied with their current market rules and boundaries. Scientific and technological small and micro-sized enterprises need to explore the potential value of the long tail proactively by developing their flexibility and innovative spirit. To be specific, they should firstly seek breakthrough on market segmentation and positioning. They may need to master the existing market and competition situation, explore unknown areas out of existing market boundaries, and determine the market segmentation by combining with their own conditions to. After choosing a right market, they should also have the appropriate products and solutions, which require enterprises to innovate on products and services. Only having a deep understanding of customer demands of target market, can we truly develop products and solutions that meet or match the customer demands. Value transfer and recognition degree improvement of customers for products and brand can be realized through manners of bringing customers convenience, high efficiency, economy, etc.

(2) Attach great importance to the construction of talent

It is crucial for the market innovation of scientific and technological small and micro-sized enterprises to posse the quantity of innovation resources. It is obvious that if enterprises invest large scale and high quality resources on market innovation, it will inevitably produce an immediate effect to the formation of its market innovation capability. Also, if an enterprise has relatively more scientific research personnel with high overall quality and innovation experience as well as the managers with positive innovation consciousness, then the enterprise will have a strong innovation potential.

Market innovation is a project cooperated by many departments of market, sales, technology and administration, etc., meanwhile, it has higher requirements for an enterprise's internal communication, coordination and cooperation. scientific and technological small and micro-sized enterprises have high technicality and innovativeness, and thus have a high demand for capitals and talents. However, small and micro-sized enterprises subject to their own economic conditions and the external financing system like loans is not perfect, thus the fund shortage caused by innovation often cannot be solved. On the other hand, researchers that engage technical works, scientists and engineers in the domestic mostly concentrate in large enterprises, and the high-end technology talent proportion in small and micro-sized enterprises is still low. Therefore, if the problems of capital and talent cannot be effectively solved, it will undoubtedly affect the market innovation ability of scientific and technological small and micro-sized enterprises to raise. In addition, scientific and technological small and micro-sized enterprises in our country is overall in a relatively backward level in management and system, managers lack of management skills, planning is not strong, and innovation awareness is lack, which are the points that small and micro-sized enterprises have to consider.

Therefore, scientific and technological small and micro-sized enterprises should focus on doing a good job of talent construction. Through the establishment of talent introduction mechanism, using mechanism and incentive mechanism, fresh blood will be injected in the market innovation of small and micro-sized enterprise. Furthermore, in order to reduce the talent turnover, small and micro-sized enterprises should pay more attention to the cultivation of humanities environment, increase the staffs' sense of belonging and reduce the turnover rate. With the development of scientific and technological small and micro-sized enterprises, the requirement for top managers' personal ability is becoming increasingly high. Thus, enterprises could help senior managers to improve their management ability, innovation consciousness, and understand the cutting-edge technology dynamic through special training, and also, the steady development of small enterprises can be realized by grasping product market direction of policymakers. Besides, studies have shown that the government has an irreplaceable role in the process of promoting the market innovation of scientific and

technological small and micro-sized enterprises. The government provides relevant policies and systems for the market innovation of scientific and technological small and micro-sized enterprises, witch determine the feasibility and validity of resource access of them. So, the government should take corresponding measures to reduce the resources access difficulty from the external environment of scientific and technological small and micro-sized enterprises according to the various kinds of interests of them.

(3) Create a good financial environment

Funding support plays the role of blood circulation in the enterprise survival. For the scientific and technological small and micro-sized enterprises that rely on continues innovation to enhance competitiveness, they are inseparable from the capital support at every stage of the innovation. In our country, due to the imperfect market-based financial system and obstructed financial channel, the financial difficulties have become the barriers in the development of scientific and technological small and micro-sized enterprises. For scientific and technological small and micro-sized enterprises with higher technology dependency, they have higher risk degree than traditional industries because of the constantly updated technology, and thus, it is difficult for them to get loans from financial institutions. In addition, because of the high technical characteristics of scientific and technological small and micro-sized enterprises, human capital of its capital formation is high and physical capital is relatively low, banks take huge financial risk but are still unable to get high yield returns, therefore, many banks are not willing to provide financial support for small and micro-sized enterprises.

Economic foundation of scientific and technological small and micro-sized enterprises is relatively weak, but because of their quantitative advantage, their created value can compete with large enterprises'. The emergence of the Long Tail Theory has caused great shock to the traditional financial mode, and under the guidance of " 80/20 rule " business model, it is thought that 80% of the bank profits come from 20% of high-quality customers, while the other 80% of customers is not important, and the remaining 80% of the customer markets is thus ignored. Long Tail Theory is different from the 20% of the customers in "80/20 rule" of traditional banking financial services. Facing the capital requirements market, it is right for the Internet finance to strive the 80% small customers of "long tail". Though small and micro-sized individual customers at the tail cannot bring higher returns for Banks like big customers at the head, the created profits by a large number of small customers can even compete with large customer at the head. In addition, the financial demand of these small and micro-sized customers are small and personal, and consequently, the Internet financial institutions should rely on their own advantages to efficiently solve the personalized requirements of small capital demanders.

Japan firstly exploited this tail market with potentially huge business opportunities. In order to give funds support to the innovation of scientific and technological small and micro-sized enterprises, Japan has established many financial institutions that specially provide service for small and micro-sized enterprises, and supplied equipment funds and circulating capitals loans, etc. for small and medium enterprises, and the interest rate and loan term are all better than the market. What's more, the Japanese government has also funded the institution in whole or in part to provide loan guarantee for small and micro enterprises, and thus, the opportunity to get loans from private Banks for small and micro-sized enterprises is increased.

（4）Intensify policy support

Contributions of scientific and technological small and micro-sized enterprises for economic growth and employment are proverbial. In the current fragmented economy era, it is undoubtedly necessary for the government to mobilize strength of various aspects to help scientific and technological small and micro-sized enterprises to get through the plight of financing difficulties. But the difficulties faced by scientific and technological small and micro-sized enterprises are not only embodied in the financing aspect, but also in other various aspects with policy discrimination, like industry, taxation, investment, etc. At present, many policies and regulations to promote the development of small enterprises in China is also imperfect. Small and micro enterprises are obviously discriminated in the

aspects like government procurement, admittance into industries, as well as the tax policy. Our country's existing policies, like tax policy, is mainly for traditional industries like manufacturing, and thus, the policy support for knowledge-intensive industries is still not enough. Besides, large state-owned enterprises and some foreign monopoly enterprises continuously strengthen its own monopoly position, which forms a strong crowding-out effect for small and medium-sized enterprises. Consequently, small and medium-sized enterprises not only fail to obtain the chance of gaining experience, but also cannot get financial support for rolling development, which all make it difficult to guarantee enterprise's sustained market innovation.

In general, it is believed that large enterprise is the main contributor to the economy, however, the world economic development in recent decades demonstrates the easily overlooked small and medium-sized enterprise at the long tail, especially scientific and technological small and micro-sized enterprise is the important strength to drive industry technological progress, and is also related to the key of whether China can win the future competition advantage. As the main body of market economy, an enterprise can hardly achieve survival and development in the fierce market competition without a good policy support environment. Especially for scientific and technological small and micro-sized enterprises, its special role and growth rule in the economic and social development need more support of policy and law environment. Countries should increase the intensity of policy support for scientific and technological small and micro-sized enterprises, put the small and micro enterprise's development in the important strategic position, set up specialized service agencies for small and micro-sized enterprises. And a full range of encouragement and support should be given to the development of small and micro enterprises from the planning and layout to the innovation environment and from public service to the related tax policies,

The key to the fast development of America's scientific and technological small and micro-sized enterprises is that the U.S government attaches great importance to the strategic position of small business in market innovation, and has taken practical measures to guide and support. The purchase amount of U.S. federal government in a year is more than $400 billion. Congress claimed that the federal agencies must establish procurement goals in view of the small and micro-sized enterprises, and at least 23% of the annual orders should be given to small enterprises. Moreover, the federal government procurement law also stipulates that if the amplitude of their own suppliers' offer is higher no more than 6% than the foreign suppliers, domestic suppliers can firstly get the sourcing, and at the same time, small and micro-sized enterprises can enjoy preferential treatment in more than 12%. It is these policies that make many high-tech small and micro-sized enterprises in Silicon Valley benefit a lot.

5. Conclusion

Small enterprise is the cradle and foundation of large enterprise. In order to win in the global competition, China should have a group of scientific and technological small and micro-sized enterprises with competitive advantages, because they carry the tasks of raising the China's superior industries and promoting the national innovation ability, and affect the sustainable development of China's economic future. Therefore, the country must give high degree of attention for the great number of tail small and micro-sized enterprises, and promote the development of scientific and technological small and micro-sized enterprises to the national strategic level. In order to ensure the long-term development of scientific and technological small and micro-sized enterprises, the country should perfect the financial market system as well as policies and regulations continually, provide superior financing environment and policy support, and provide sustainable development planning. At the same time, scientific and technological small and micro-sized enterprise itself should make the best efforts for its development. Specifically, the enterprise need to have full understanding of the development law of modern enterprises, seize the opportunity, increase the investment of innovation resources, introduce the high-tech talents, and strengthen the entrepreneur's own market innovation consciousness.

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References

[1] Zhou K Z, Yim C K, Tse D K.:The Effects of Strategic Orientations on Technology-and Market-based Breakthrough Innovations,Journal of Marketing,2005,69(2):42-60.
[2] Hang C C,Chen J,Yu D:An Assessment Framework For Disruptive Innovation,Foresight,2011, 13(5):4-13.
[3] Huang Hengxue.:*Market Innovation*(Tsinghua University press,China,1998),p.47-63.
[4] Zhou Yanling,Xia Kan.:The Theory of Market Innovation Process and Implementation,Science and Technology Management Research,2001,04:55-57.
[5] Wang Ruzhi:The Market Innovation of Small and Medium-sized Enterprise,Industrial Technology Economics,2005(08):22-23
[6] Rick Ferguson, Kelly Hlavinka:The Long tail of loyalty: How Personalized Dialogue and Customized Rewards Will Change Marketing Forever,Journal of Consumer marketing, 2006 (6):60.
[7] Jiang Qiping.:*Long Tail Strategy*(CITIC Press,China,2007) p.64-70.
[8] Liu Jibing,Wang Dingchao.:Study on the Innovation Ability and Performance Reviews of Scientific and Technological Small and Micro-sized Enterprises Based on the Analytic Hierarchy Process,Scientific and Technological Progress and Countermeasures, 2013,18: 165-169.