

## **Promotion of Endogenous Power of Science and Technology Innovation in Electronic Information Enterprises in the New Era**

Fuqiang Tian<sup>1,2</sup>

<sup>1</sup>Research Center for Political Participation and Discussion of Shaanxi Jiu san Society, Xi 'an University, Xi'an, China

<sup>2</sup>Research Institute of Xi Xian New Area, Xi Xian New Area. Xi'an, China

tianfuqiang2004@126.com

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**Abstract:** Innovation-driven and take science and technology innovation as an important assessment index, increase the weight of the assessment of science and technology innovation index, improve the level of risk monitoring and increase the risk monitoring. Innovation-driven and establish the negative list of science and technology innovation of electronic information enterprises, analyze and clarify the forbidden zone of science and technology innovation of enterprises, and the behaviors that are not in the negative list can be explored by enterprises. Take the technology innovation experience of electronic information benchmark enterprises as the object of reference, and discard the obstacles that hinder technology innovation. Integrate resources and make the leading enterprises bigger and stronger. Break through barriers and actively participate in international market competition. Revitalize resources and fully activate the competitive potential of enterprises. Provide effective incentives, protect intellectual property rights, optimize the market for managers of electronic information enterprises, and offer competitive salaries and bonuses.

The driving force of enterprise operation and development is science and technology innovation [1],and to build innovative enterprises, it is necessary to stimulate the innovation drive of enterprises [2]. The collaborative innovation dynamics of enterprises prompt and promote the implementation of innovation-driven strategies [3]. The mechanism of enterprise independent innovation drive follows a certain evolutionary path, from exogenous drive of technological innovation process, to endogenous drive of institutional innovation process, and finally to synergistic drive of collaborative innovation process[4-10].

### **1. Innovation Leads and Uses Innovation as An Indicator for Evaluation**

Change the appraisal index system to give priority to the appraisal of innovation over the appraisal of asset preservation and appreciation. We should adapt to the innovation-driven trend, have the temperament of taking in all rivers, establish a diversified and inclusive appraisal system, and make science and technology innovation an important appraisal indicator in the appraisal index system.

#### **1.1. Make Science and Technology Innovation as An Equally Important Appraisal Indicator as Value Preservation and Appreciation**

The reform of Chinese enterprises in the new era must conform to the idea of economic structure transformation and upgrading, and no longer take value preservation as a single core indicator, but take scientific and technological innovation and value preservation as equally important core indicators. In the new era of focusing on the quality of economic development, it is undoubtedly one-sided if we do not consider the technological content of assets and focus only on the quantitative increase of assets and ignore the qualitative improvement of assets; while it is essential

to have quantitative improvement, it is more critical to have qualitative improvement. The competition of quantity is no longer enough for enterprises to obtain unique advantages in the international competition, and the close combination of quantity and quality to achieve quality economic development can make enterprises invincible.

### **1.2. Incorporate and Increase the Weight of Appraisal of STI Indicators**

After incorporating the assessment of the scientific and technological content of enterprise assets, the weight of the indicators of scientific and technological innovation should be gradually increased according to the stage in which the enterprise is transforming and upgrading. For enterprises with slower asset appreciation due to scientific and technological innovation, or enterprises with reduced assets due to scientific and technological innovation, they should be considered according to their comprehensive performance in both asset value-added preservation and scientific and technological innovation, so as to dispel the ideological concern that enterprises may fail to accomplish the single goal of asset value-added preservation in the process of scientific and technological innovation.

### **1.3. Extend the Appraisal Period for Value-added Preservation Indicators**

Scientific Technological innovation often has a longer-term impact on enterprises. If an enterprise breaks through the routine and wants to carry out challenging technological innovation, it will often invest huge amounts of money in R&D. Because of the originality of the technology and the unpredictability of the market, there may be a phenomenon that the investment is not proportional to the revenue in the short term, and it may even have to borrow money to invest because of the need to seize the opportunity, resulting in the short term failure of the assets to achieve the goal of preserving and increasing the value; however, if the risk control is appropriate, the huge amount of R&D. However, if the risk is properly managed, the huge investment in R&D funds may be effective in the medium and long term and achieve a dominant position in the market, resulting in a great increase in revenue, which not only makes up for the initial loss of assets, but also brings a greater benefit of asset preservation and appreciation than under conventional R&D conditions. In order to encourage strategic companies to leapfrog into R&D, the time frame for assessing the value-added of assets can be moderately stretched to assess the increase or decrease of assets after a period of time, so as to reduce the tension between the value-added of enterprises and technological innovation.

### **1.4. Improve the Level of Risk Monitoring and Increase Risk Monitoring Efforts**

Shaanxi Electronic Information Group and other five leading units operating income of more Allowing enterprises to specialize in science and technology innovation for a period of time is not to don't preserve and increase value, but to better preserve and increase value. Therefore, under the condition of not increasing or decreasing the burden of enterprises, we should make use of artificial intelligence and big data to increase the analysis and research on the risk of science and technology innovation of enterprises, and pass consulting suggestions for enterprises to control and reduce the risk. Under the condition of encouraging enterprises to let go, help enterprises to effectively reduce the risk of scientific and technological innovation.

## **2. Innovation-driven and Establish A Negative List of Companies**

The lack of innovation of enterprises is not only manifested in the assessment indicator system, but also in the holographic dimension with the assessment indicator system as the core. The negative list system is innovative, and currently the negative list is mainly used in macro areas to limit inappropriate government intervention in enterprises. The negative list system can also be migrated to the field of science and technology innovation of electronic information enterprises, according to the attributes of enterprises, stipulating the forbidden area of science and technology innovation, and explicitly prohibiting electronic information enterprises from doing behaviors that are against the prohibition in the process of science and technology innovation. The behaviors

outside the negative list can be implemented by electronic information enterprises.

### **2.1. Analyze the Attributes of Electronic Information Enterprises and Clarify the Forbidden Area of Scientific and Technological Innovation of Electronic Information Enterprises**

Before private enterprises undertake the development and production of military products, only by clarifying the special characteristics of electronic information enterprises can we truly activate the scientific and technological innovation potential of electronic information enterprises and get rid of the bondage of electronic information enterprises.

### **2.2. Establish a Negative List of Science and Technology Innovation of Electronic Information Enterprises, Enterprises are Not Prohibited or Allowed**

The main points of the operation of electronic information enterprises determine the forbidden areas of scientific and technological innovation of electronic information enterprises. The forbidden areas must be clear and necessary. The non-essential forbidden areas should be deleted and ensure that the negative list of forbidden areas will be gradually reduced with the improvement of the level of science and technology innovation of electronic information enterprises.

## **3. Emancipate Your Mind and Use Benchmark Companies as Reference Objects**

Some electronic information enterprises are subject to more constraints, and there is a gap between the level of science and technology innovation of some benchmark enterprises. Unbinding the mechanism of electronic information enterprises is the direction of development of science and technology innovation driven by electronic information enterprises.

### **3.1. Drawing on the Experience of Science and Technology Innovation of Benchmark Enterprises**

Analyze the advantages of science and technology innovation of some benchmark enterprises and analyze the elements required for science and technology innovation of electronic information enterprises. To draw on the experience of science and technology innovation of benchmark enterprises, we should make a list to find the aspects that can be drawn on, find the aspects that cannot be drawn on temporarily but can be drawn on after a short period of time by improving internal and external conditions, find the experiences that basically cannot be drawn on, and analyze whether there is a path to compensate for the solution.

### **3.2. Discard Barriers to Innovation of Electronic Information Enterprises**

Understand the obstacles that exist for electronic information enterprises in gaining innovation advantages, classify the obstacles and problems one by one, clarify which are determined by the attributes of electronic information enterprises, and solve them through alternative solutions; clarify which are determined by factors other than the attributes of electronic information enterprises, and solve them as soon as possible if they can be solved; provide compensation solutions if they cannot be solved.

## **4. Integration of Resources and Bigger and Stronger Industry Leaders**

To make the leading enterprises bigger and stronger, the first thing is to make the scale of enterprises bigger. Integrate existing resources, create globally competitive electronic information leading enterprises, and promote the centralized and coordinated development of electronic information enterprises.

### **4.1. Doing Addition**

In the process of accelerating the cultivation of leading enterprises, enterprises with strong innovation ability, strong market competitiveness, flexible and efficient mechanism and good economic and social benefits should be implemented to integrate high-quality resources.

#### **4.2. Do Subtraction**

In the process of integration, it is impossible not to add a choice and pick up all the dishes in the basket. The resources of the former state-owned enterprises to be integrated into the leading enterprises should be screened. Eliminate the bad assets that affect China's development strategy, and set up a separate enterprise; To ensure that the resources of the leading enterprise have a good growth.

#### **4.3. Do Multiplication**

The main criterion of resource integration is to attract complementary strategic resources. To ensure that the complementary strategic resources between the formation of stimulating effect, greater innovation benefits than the original parts of resources.

#### **4.4. Do Division**

After the integration of high-quality resources, it does not mean that high-quality leading enterprises can be formed. The reason why state-owned enterprises did not achieve the expected development results, there must be insufficient endogenous power. After the integration and formation of a leading enterprise, if there is no mechanism innovation and the influence of original disadvantages is eliminated, it is still a large but not strong enterprise and cannot become a leading enterprise in a true sense. In the process of mechanism innovation, mechanisms that are not conducive to the development of leading enterprises should be eliminated and mechanisms that are conducive to the growth of leading enterprises should be constructed. We should promote the development of state-owned industries by enhancing the strength of clusters. Break through barriers and actively participate in international market competition to become bigger and stronger leading enterprises, secondly, to have the courage to withstand the baptism of market competition. The state champions do not compete entirely at home. Therefore, both must implement effective protection of state-owned enterprises, cultivating leading enterprises to grow stronger, and dare to let go, a comprehensive introduction of market competition, the leader of the market economy through wind and rain, with a strong sense of market comprehensive natural resources and flexible market thinking, dares and is good at the fierce competition in the global scope, realize the strategic target for leading the world.

### **5. Break through Barriers and Actively Participate in International Market Competition**

To be bigger and stronger leading enterprises, followed by the courage to withstand the baptism of market competition. The competitors of electronic information leader enterprises are not entirely in the country. Therefore, we should not only implement effective protection for electronic information enterprises, cultivate the leading enterprises to become bigger and stronger, but also dare to let go and introduce market competition comprehensively, so that the leading enterprises can withstand the wind and rain of the market economy, and revitalize resources with strong market awareness and flexible market thinking, and dare and be good at participating in the fierce global competition to achieve the strategic goal of leading the world.

### **6. Revitalize Resources and Fully Activate the Competitive Potential of the Company**

To make the leading enterprises bigger and stronger, once again, a comprehensive internal competition mechanism should be formed. The leading electronic information enterprises should have a benign competition mechanism. The internal competition of electronic information enterprises can only be activated more fully to make up for the shortcomings of competitiveness. The comprehensive introduction of internal competition mechanism to adapt to international competition, the external competition pressure is transferred to the internal electronic information leading enterprises, so that everyone really feels the pressure of fierce competition to ensure the activation of the leading enterprises.

## **7. Effective Incentive Mechanism**

To make the leading enterprises bigger and stronger, we also need to have an effective incentive mechanism. To enhance the competitiveness of science and technology innovation as the standard, break the obstacles of institutional mechanism that are not conducive to the incentive of all employees, and transform all the hindering factors that are not conducive to the employees' maximum enthusiasm. Comrade Yi Gang summarized that there are five aspects of incentives and constraints for people: property rights, managerial market, salary and bonus, "black hat" mechanism, and ideological and political work, which can be learned from.

### **7.1. Protect Intellectual Property Rights**

The incentive and restraint function of property right is obvious. In order to stimulate the potential of scientific and technological innovation of state-owned enterprises, under the condition of maintaining and increasing the value of state-owned assets, the property rights of scientific and technological personnel of state-owned enterprises should be clarified and protected, the transaction cost of intellectual property transformation should be reduced, and the enthusiasm of scientific researchers should be brought into full play.

### **7.2. Optimize the Market for Managers of State-Owned Enterprises**

Under the market incentives and constraints of managers, senior managers, accountants, lawyers, doctors, professors, engineers, analysts and other professionals can do their best. They have built a strong track record through their work, thereby increasing their value in the manager market. Establish a manager market connecting state-owned enterprises and private enterprises, so that state-owned enterprises and private enterprises can give full play to the innovation potential of professionals. To make state-owned enterprises more attractive to professionals.

### **7.3. Provide Competitive Salary Bonus**

Allow SOE managers and employees to receive salaries similar to those of domestic private companies with similar competitiveness. Under the condition that state-owned assets maintain and increase in value, operators are allowed to obtain the surplus profits of similar private enterprises, and the main operators of state-owned enterprises are encouraged to give full play to their operation potential.

### **7.4. Make Good Use of the "Black Gauze Cap" Mechanism**

The "black hat" mechanism refers to the promotion of the job as an incentive. Create and excellent then official, use promotion to mobilize the enterprising spirit of the elite of state-owned enterprises, mobilize the enthusiasm of the managers of innovation. In order to encourage the managers of state-owned enterprises to make bold innovation, actively innovate and have the courage to innovate, the managers of state-owned enterprises who have made outstanding achievements in technological innovation shall be boldly promoted to higher levels and be reused beyond the normal promotion level.

### **7.5. Doing A Good Ideological and Political Work of Science and Technology Innovation**

Ideological and political work, political beliefs and professional beliefs have a strong motivating and restraining effect on people. Make innovation as the professional belief of SOE operators, popularize innovation consciousness among SOE operators and their employees, and use innovation consciousness popularization rate as one of the rewarding dimensions for SOE operators and employees.

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