On the Strategy of Enhancing the Independent Innovation Ability of Scientific Research Credit System based on the Analysis of Computer

Xin Guo¹,*

¹China Electric Power Research Institute, China, 100192
*Corresponding author e-mail: kinnyguo@hotmail.com

Abstract. The computer age is an age of independent innovation. In the context of computer technology, the ability of independent innovation is the most important ability for a country and a nation to prosper. For the scientific and technological personnel of the country, it is necessary to set up the credit system of scientific research. In order to prevent the damage of science and technology credit and enhance people's ability of independent innovation, we must promote the innovation of scientific research citation system[1]. We should clearly understand that scientific research is the main source of a country's development. The science and technology credit system to enhance the ability of independent innovation is the necessary stage for the country to follow the development and progress of the times.

Keywords: Computer, Independent Innovation, Science and Technology Credit, Strategy

1. Introduction

The computer age is an era of scientific and technological progress, and scientific research projects are particularly important under the computer technology. In the process of implementing scientific research projects, the lack of scientific research credit in independent innovation activities often occurs[2]. In order to enhance the ability of independent innovation, we need to promote the establishment and innovation of scientific research credit system. The ability of independent innovation is the most important ability in scientific research. Independent innovation can promote the development of scientific research projects. It is conducive to the development of enterprises.

Scientific research credit system is the core of scientific credit system. Its existence runs through the whole process of scientific research project operation. Before general scientific research projects, bidding, budget review and other links, we must query and evaluate scientific research credit through
relevant institutions and individuals. Generally speaking, it is an important reference for scientific research. In order to avoid the lack of credit, we must steadily improve the ability of independent innovation. At the same time, I think the establishment strategy of scientific research credit system is also a very important learning content.

2. To standardize the examination and approval system of scientific research projects and the appraisal system of achievements

2.1. It is necessary to clarify the main objects involved in the credit of independent innovation projects

There are two main objects involved in activity credit. They include credit subject and credit object. The credit subject mainly includes the executor, evaluator and manager of independent innovation project of research fund. The object of credit mainly includes scientific research plan, basic research plan and related national subject's scientific research plan. Sometimes many small and medium-sized enterprises and provincial important scientific research projects are also included in the content of credit object[3].

2.2. Contract management of independent innovation scientific research projects

Strengthening the contract terms and regulations can restrict the behavior of credit subject to a great extent. In the process of implementing independent innovation projects, those who need to form formal commitments should clearly write the credit relationship and the responsibilities to be undertaken in the contract terms.

2.3. Establishment of credit standard for project executors

In order to make the executor of independent innovation project abide by the commitment and implementation agreement, it is necessary to formulate the credit standard of the project. It can tell the executor what is trustworthy behavior and what is dishonest behavior. This way can ensure the honest and trustworthy behavior of the executors of innovation projects.

3. To establish a sound supervision system of funds for independent innovation of scientific research projects

3.1. Establish personal account based on security password

Staff engaged in the development, transaction and evaluation of scientific research projects must apply for personal credit security password. This kind of password must ensure that everyone can only have one (see Table 1). The data of everyone's credit information is stored in the information database in the password. If the partner of a research project wants to query someone's research credit information, he can get the data information of the other party by querying the security password of the other party[4].

| Develop strategy | Concrete content |
|------------------|------------------|
| Appraisal system | Identification of approval process |
### 3.2. To gradually expand the coverage of basic accounts

The improvement of science and technology information system can better play the role of basic account. It can not only accommodate the funds of independent innovation projects, but also gradually accommodate a variety of scientific research funds. In other words, we can put all kinds of income sources of scientific research projects in the basic account.

### 3.3. Financial forms of scientific research projects can be made by double entry bookkeeping

Generally speaking, there are two methods of fund accounting for independent innovation projects. They include single bookkeeping and double bookkeeping. Single bookkeeping refers to the daily accounts in daily life. It's also known as a regular bill. Double entry bookkeeping is based on the classification of account purpose. Compared with single bookkeeping, double bookkeeping is more detailed. Therefore, the financial statements of scientific research projects are generally arranged by double entry bookkeeping.

### 4. To improve the evaluation system of scientific research credit of independent innovators

#### 4.1. Establishment of scientific study credit evaluation system for independent innovators

The evaluation system should include the basic information evaluation index, the bad behavior record evaluation index and the good behavior record evaluation index. Evaluation index refers to the basic information of scientific study credit. It mainly includes the basic quality, scientific research ability and economic strength of scientific researchers. The evaluation index of bad behavior refers to the dishonest behavior of scientific research credit. If a researcher's bad behavior is recorded, his research behavior will be limited. If his good behavior is recorded, he will be rewarded for his research.

#### 4.2. Innovation of evaluation method of scientific study credit

Although the traditional evaluation method of scientific research credit can still be applied to today's scientific research projects, its error is relatively large. With the renewal of scientific research technology, the evaluation method with large error will cause the unfairness of scientific research. Therefore, I think the innovation of the evaluation method of scientific research credit can be divided into three parts. First, the credit of scientific researchers is evaluated by means of index quantification. Secondly, the error is evaluated by the way of correcting index quantification. Third, using the combination of credit rating and scientific research activities to evaluate scientific study credit[5].

### 5. Establish a complete punishment standard of scientific research credit system to enhance the ability of independent innovation

Punishment system is an important way of credit evaluation of scientific research. People generally don't
pay much attention to the credit evaluation system without punishment mechanism. The emergence of punishment mechanism can limit the dishonesty of most researchers. This way can promote the rapid improvement of scientific research level in China. It can also reduce the probability of plagiarism.

The specific punishment mechanism can be amended according to the meaning of the leadership. This article can give an example. For example, if the executor of a scientific research project violates the credit standard of the person in charge, the management department will disqualify the fund of its scientific project. After the disqualification, the executor needs to reapply for the inclusion of the fund within five years.

6. On the strategy of enhancing the independent innovation ability of scientific research credit system under the background of computer age

According to the above description, we can find that the establishment of scientific study credit system is very important for a country's scientific research development. Independent innovation ability is also an important part of the cultivation of scientific study ability[6]. Countries without the ability of independent innovation will not be strong, and researchers without the ability of independent innovation will not reach the peak of scientific study. In order to support and unswervingly support the advancement of scientific research projects in the computer age, we need an important scientific research management and supervision measures. This measure is called research credit system.

The establishment of scientific research credit system mainly includes appraisal system, supervision system, evaluation system and punishment system. Their strategies are different. The establishment of appraisal system should be based on the actual project application. The establishment of the supervision system should mainly rely on the basic account of the computer users and the actual situation of the financial statements of scientific research projects. Evaluation system and punishment system should be developed in a short and intelligent way. What we want to say here is that we can add a feedback system to the establishment strategy of scientific research credit system to enhance the ability of independent innovation. Feedback system can help leaders directly understand the main problems of each management. The feedback system can also help researchers to feedback their own problems in scientific study projects. Scientific research management personnel can provide specific help according to the specific needs of each scientific research personnel.

7. Conclusion

Generally speaking, the formulation strategies of scientific research credit system should mainly include: firm system strategy, supervision system strategy, evaluation system strategy and punishment system strategy. In the computer age, enhancing the independent innovation ability of scientific research credit system is a huge regulatory power for the promotion of scientific research projects in China.

References

[1] ZHANG Feng-lian, HAN Ling-chun, WANG Xiao-da. Study on production decline model after pattern infilling in low permeability reservoir[J]. petroleum geology & oilfield development in daqing, 2007.

[2] Zhu Wei, PetroChina Liaohhe Company. Study on determination method of reasonable well
spacing in low permeability oilfield[J]. Petroleum Geology & Engineering, 2016.

[3] Yang S R , Li B Y . The Study of Flowing Law of Typical well Patterns in Low Permeability Reservoirs[J]. Applied Mechanics and Materials, 2013, 444-445:338-341.

[4] Xinquan R . Study on horizontal well pattern in ultra-low permeability sandstone reservoir[J]. acta petrolei sinica, 2008.

[5] Hu W , Yang S , Lei H , et al. Study of Reasonable Well Planning for Tertiary Infilling in Xing6 Area, Daqing Oilfield[C]// 2015 International Conference on Science and Environment (ICSE 2015). 0.

[6] Wang Wendong, Su Yuliang, Zhou Shiyu. Investigation of hydraulic fracture optimization in on Infill well in low permeability reservoirs[J]. 2014.