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Enhancing the Management Effectiveness of the Scientific Research Achievements at Colleges and Universities

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Abstract
In recent years, with an increasing number of scientific research findings at colleges and universities, the management of them is increasing step by step. Meanwhile, the work task is also growing. Wonderful management of scientific research is of great significance to promote the development of scientific research in higher educational institutions. This paper, aiming at disadvantages existing in the management of scientific research in our country, put forward a suggestion that is to enhance the management effectiveness of the scientific research achievements at colleges and universities by sounding the management system, making full use of the modern information technology, increasing the investment of funds, realizing the combination of production as soon as possible, strengthening the construction of scientific research innovation team to implement the scientific, accurate, timely, orderly scientific research management goal.

Keywords: scientific research; management; effectiveness

Introduction

Scientific research, the fruits of labor of all universities full of academic and social value, comes from the researchers' hard work, by doing a lot of scientific research practical activities in the process of researching activities conducting the creativity, scientific researches on purpose. Generally speaking, there are a number of talents relatively concentrated at colleges and universities, who are in the possession of a good scientific research environment, rich human resources and advanced scientific equipment, which provide a better condition for the research personnel engaged in scientific research, at the same time, also producing more scientific

research achievements. At present, the competition between universities also has been evolved into the scientific research strength and level of the competition. Such as the gaining of SCI papers, national natural fund projects, national social science fund projects, 973, and other high level projects, occupies a very important role in university ranking. It is obvious that scientific research has become an important symbol about scientific research at colleges and universities. In order to enhance their own competitiveness, nearly all the colleges and universities try their best to produce the more high-quality goods from various aspects. Scientific research management plays an important role in the topic selection and the work efficiency improvement. So, how to scientifically manage the scientific research, enhance the effectiveness of scientific research management, improve service levels, scientific research management of colleges and universities to promote healthy and orderly coordinated development, is also a problem to be solved at colleges and universities.

The present situation and problem analysis of scientific research management in colleges and universities

The imperfect management system of scientific research

At present, most universities in China have made the achievements management, acknowledgment and registration, appraisal, reward, evaluation and related management system. But, relative to the rapid development of scientific research in colleges and universities, the system is not enough. Firstly, the system itself has some shortcomings, such as the fuzzy verification method and unshaped responsibility. So it is inevitable to appear various problems in the process of implementation, such as fuzzy policy, different standards, and mutual shuffle. Secondly, it is lack of strength and fairness in the rewards of the scientific achievements. For SCI papers, the rewards are aggressive, however, for general paper the awards are at the provincial level. A higher level national project will get heavy rewards; on the contrary, the less of projects will be got lighter rewards. Thirdly, the management system is poor in the comprehensive implementation. Some scientific research management system is only literally. But in the process of actual management, the policy the management of policy is not yet implemented due to the little knowledge of research management. Fourthly, to attach the great importance to the projects given, but to look down on the projects finished. Now, the problem universally existing in the management of colleges and universities is that they lay particular stress on project management, ignoring the management of the project results, and the transformation of achievements. On the management methods, the colleges and universities only excessively pursuit the number of the achievements, but lighten the quality of them, taking a view of less optimistic concluding achievements of scientific research. Fifthly, to play more emphasis on the output of achievement, less emphasis is put on the transformation of them. Take China West Normal University as an example, every year the achievements of the scientific research are 300 or so, the paper results are about 2800, but the number only reaches 20, which can go on the transformation, bringing the economic benefits and the proportion of it is only 0.06%.

Not having kept up with the market changing

On the one hand, affected by the traditional idea seeking quick success and instant benefits, some local colleges and universities are lack of certain exchanges and cooperation between other universities and societies, without understanding the social demands properly. On the other hand, part of the scientific research workers don't know the market very well, lacking benefit consciousness, so it is difficult for them to make the achievements serve the society effectively. What's more, in order to get project and funds as soon as they can, some scientific workers are buried themselves in a large number of books looking up a great many documents getting enough information, to establish their own subjects, taking no notice of the market demanding. Such topics are seriously out of line. As a result, the findings, in a way have certain social value, but sometimes they can't form effective productivity because of being lack of a good many market materials; let alone to bring social and economic benefits. Therefore, in colleges and universities it is a common phoneme that the scientific research achievements registered are ten or more times than those applied, which is not good for the development of the colleges and society.

To strengthen the investment in scientific research

A scientific study, starting from the preparation, through a series of research activities, such as early research, mid-term inspection, to the final, which is a creative, long periodicity, high risk activity, needs to spend a lot of manpower and material and financial resources. In our country, most colleges and universities have a large number of investment in the construction of hardware and software, but less in the school scale expansion, teaching equipment, scientific research and other aspects. That mainly shows in the aspect of rewards. Now take China West Normal University for example, a national natural foundation project of China and a national social science foundation project of China, the school only give 150000 yuan to set and a ministry of education project will be given less, only 5000 yuan. In papers, A paper of SCI1 area will give 20000 yuan, some other colleges and universities will give much more than CWNU, 150000 yuan. In Chinese papers, the rewards are even less, for instance, a paper from CSSCI core journal, the reward is only 2000 yuan, which is not enough to pay the published fee. In a word, for the above reasons, the enthusiasm of the teachers' scientific research can't be fully stimulated.

To enhance the abilities of the achievements of conversion and application

A Ministry of Education report on the achievements conversion and application shows that there are achievements obtained between 6000 and 8000 every year in colleges and universities. But the proportion of the achievements transformed and industrialized is only to reach one out of ten, due to being short of the intrinsic motivation mechanism, the external economic carrier, poor social investment mechanism and so on. At present, in our country, the conversion rate of scientific and technological achievements is only 20% on average, which is less than 5% for its production, and the exchange rate of patent technology is only 5%, far lower than the developed countries. The achievements of CWNU in 2014 are listed in the following table.

Category	Number	Proportion
Longitudinal Study	290	8%
Horizontal Project	34	1%
Papers	2723	84%
Monographs	37	1%
Appraisals	18	0.5%
Creations	44	1%
Patents	14	0.5%
Adopted Results	2	0.06%
Servings	65	2%
Sum	3227	

From the table, we can see paper is the highest among the results, which are mostly the basic research. The proportion of other results, just like patents, horizontal projects, is less than the paper. Most of the results will be kept in the file rooms, through a series of processes, such as topic selection, project, intermediate inspection and so on.

The countermeasures of improving the management effectiveness

To improve the system of scientific research management

As a management department of the scientific research, it is necessary and important for them to adapt to the times, advance with the times and constantly improve the system of scientific research management. A scientific research project must go through application, evaluation, recommendation, and other processes. As far as the fruits, the determination, registration, archiving, rewards are ought to be fair and justice, trying to be the scientific densification, the fair review, reasonable rewards and the specific documents.

To establish a scientific system of rewards and punishments

The colleges and universities are ought to strongly support those achievements, which can turn the theories into productivity and bringing economic benefits in the process of rewarding. Meanwhile, they also should pay more attention to support the significant and key projects, which are more difficult with a long time to finish, ensure to provide them the required manpower, material resources and the necessary scientific research equipment and sites, giving sufficient funds, opening for these support can inspire the researchers to devoting themselves to the scientific research work, striving for the high-quality goods.

To strengthen the industry-university-research cooperation

The report on ―the exploration and practice of the science and technology achievements transformation in colleges and universities‖, completed by 20 universities in China joined together pointed out that the competition of technology is not only reflected in the technological innovation, but also in the transformation of technological achievements. Up to now, in our country the transformation of scientific and technological achievements has been far behind the developed countries, especially in colleges and universities. So this situation is not conducive to the development of the colleges and universities, let alone to the society. This result is also harmful to the implementation of the strategy relying on science and education, not matching with the modern university educational philosophy and the social status of the university.

As we all know, it is a common sense that in colleges and universities the scientific and technological achievements must realize the transformation. But at present, the transformation of scientific and technological achievements in our country is very low, which doesn't match with the technology resources inventory and demand of social reality. There are many reasons for the low proportion of the technology achievements conversion, which mainly show in the following two aspects. One is the social environment; the other is the internal culture and system of school. For the colleges and universities, the main reason is that the technological innovation idea is out of the times, lack of the intrinsic motivation mechanism. The results are short of the external economic carrier, mostly still linger on the research platform, and the carrier is not internalized to the real economy. The social investment mechanism doesn't carry out smoothly, mostly on the heavy academic value, but lack of the real technology integration.

To solve these problems, it is necessary to establish the universities internal motive mechanisms for transformation of scientific and technological achievements. Therefore, in this paper, the writer suggested that the government study and inspect the colleges and universities with the principle of ―education–tech—economic integration‖, bringing the technological transformation into the evaluation standard, tracking the application of technological achievements, and being included in the individual performance assessment system. We should urge the effective combination of complete production as soon as possible.

To strengthen the construction of research management team and the service consciousness

The staff's personal quality of research management directly affects efficiency of management activities. Universities should establish and improve the team training system, rewarding and publishing system in the people-oriented horizon. What's more, the staff had better go on professional knowledge, business ability training regularly, being arranged to go out to learn the exchange, to build a management team with good political quality, high accomplishment, business ability, and innovative achievements. To promote the healthy development of the school, strengthening the scientific research competitiveness, service for society and the local economy of the colleges and universities are very important.

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