

# Analysis on the Development Path of Scientific Research Management Innovation in Higher Vocational Colleges in the New Era

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**Abstract:** Big data technology is the product of the rapid development of information technology, and various industries such as transportation and e-commerce have paid more attention to the application of information technology. Infiltrating it into scientific research management in universities can promote management innovation. This paper discusses the innovation strategy of scientific research management in universities under the background of big data, specifically analyzes the optimization path of scientific research management under the application of advanced technology and provides reference for scientific research management in universities. At present, universities must not only have strong competitiveness, but also must do a good job in economic management and the analysis of economic activities, to some extent, directly affects the production development and future development direction of colleges and universities. Based on this, the article conducts an in-depth analysis of the innovation of scientific research management in universities under the new situation from multiple angles and levels, to promote scientific research in universities to become an important driving force for modern economic development.

**Keywords:** Development Path, Scientific Research, Management Innovation, New Era

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## 1. INTRODUCTION

Big data technology has obvious advantages in information storage and management. The maturity of Internet technology has a significant impact on the operation and management of all walks of life. Specific to the scientific research management of universities, it can be noticed that in the new era environment, scientific research management is developing in the direction of informatization, focusing on the sharing and arrangement of various information in the process of scientific research activities, and ensuring the effectiveness and rationality of management work. Provide guarantee for the advancement of scientific research activities in universities.

Scientific research management personnel are an important force in university management. The training and cultural level they receive directly affect their work efficiency and professional skills. To some extent, scientific research management personnel determine the effectiveness of university administrative management. In the development process of universities, scientific research management is a very important content, and it is an important way to improve the competitiveness and teaching quality of universities. For a long time, the survival and development of my country's colleges and universities have relied on mandatory plans, and the operating funds are also allocated by the state or financial departments. Corruption breeds.

Innovation must be supported by scientific research. Lu Xin, the former vice minister of the Ministry of Education, pointed out: Without high-level scientific research, it is impossible to have high-quality vocational education, it is impossible to cultivate high-quality technical and technical personnel, and it is impossible to support the economy. Transformation of development mode and adjustment and upgrading of industrial structure. Higher vocational education is one of the important types of higher education and an important level of vocational education. Scientific research innovation in higher

vocational colleges, especially technological innovation, is crucial to leading the development of higher vocational colleges and improving the cultivation of high-tech talents. Upgrading and economic restructuring provide strategic support. Innovation must be supported by scientific research. Lu Xin, the former vice minister of the Ministry of Education, pointed out: Without high-level scientific research, it is impossible to have high-quality vocational education, it is impossible to cultivate high-quality technical and technical personnel, and it is impossible to support the economy. Transformation of development mode and adjustment and upgrading of industrial structure.

Higher vocational education is one of the important types of higher education and an important level of vocational education. Scientific research innovation in higher vocational colleges, especially technological innovation, is crucial to leading the development of higher vocational colleges and improving the cultivation of high-tech talents. Upgrading and economic restructuring provide strategic support. First, innovate the concept of scientific research management in colleges and universities, and form a scientific and systematic management. Driven by new management methods, the development of colleges and universities has higher and higher requirements for management. The traditional management model not only needs to consume a lot of manpower and material resources, but also cannot effectively improve the quality and efficiency of work. In the new era, science and technology are changing with each passing day, and new knowledge and new skills are constantly emerging. Scientific research management personnel are the center of universities, acting as a bridge for employees to communicate with each other, and responsible for the coordination and cooperation of the entire work.

## 2. THE PROPOSED METHODOLOGY

### 2.1 Exploration of the innovation path of scientific research management in colleges and universities under the environment of big data

It has a very good effect on improving the practical teaching and technology research and development of teachers in higher vocational colleges. In recent years, with the emphasis on connotation construction in higher vocational colleges, the proportion of highly educated teachers such as postgraduates and doctoral students has continued to increase. Influence, the scientific research environment is not relaxed enough, and the platform and conditions conducive to the development of scientific research have not been established, which affects the progress and quality of the "double-qualified" team building in higher vocational colleges. Scientific research management needs to rely on information support to ensure the effectiveness of scientific research management in the case of information sharing and provide better services for the development of scientific research activities.

Therefore, in the process of scientific research management, colleges and universities need to pay attention to the perfect construction of scientific research management sharing platforms, to change the disadvantages of independent scientific research activities in the past, and to severely crack down on academic fraud in the exchange of scientific research information in colleges and universities. The survey shows that most colleges and universities currently participate in the construction of scientific research management information sharing platforms and transmit their own scientific research activity information to the system. Provide a reference for the direction of development. Establishing a scientific and reasonable salary system is also a respect for the value of talents. Universities are the center of scientific and technological innovation, and the focus of work should be shifted to the focus of "people-oriented and property rights". It is recognized that scientific research projects must be won through a fair and perfect competition platform. Universities should guide modern salary theory and formulate targeted the staff incentive system and management model should be developed, the relationship between managers and the production and construction of colleges and universities should be properly handled, and the salary of faculty and staff should be combined with actual performance to effectively mobilize the enthusiasm and initiative of employees and promote the healthy and stable development of colleges and universities.

The use and management of scientific research funds has the phenomenon of emphasizing hardware facilities and neglecting scientific research personnel. As the state attaches great importance to vocational education, research funds in higher vocational colleges continue to increase. However, due to restrictions on the use of funds by various scientific research management systems, a large amount of scientific research funds can only be used to purchase scientific research equipment, hold meetings, and reimburse research groups. Transportation and travel, etc., and labor costs for mobilizing the enthusiasm and initiative of scientific researchers are difficult to pay. Especially for researchers in the humanities and social sciences, their research does not require any major scientific research equipment, but more creativity and thinking that requires years of professional knowledge accumulation and precipitation. Under the above-mentioned management mode, the individualization of

scientific research management is emphasized, starting from the relevant information of various scientific research activities, timely discovering the key points of management in research activities, and ensuring that the management methods meet the needs of scientific research activities.

### 2.2 Analysis of Effective Ways and Suggestions for Strengthening Scientific Research Management in Colleges and Universities in the New Era

At present, in the implementation process of scientific research management in most universities, special management personnel will be arranged for various scientific research activities to collect, organize, and record project operation information, so as to ensure that the whole process of scientific research activities is under supervision and improve the level of scientific research management services, to provide basic conditions for the enhancement of scientific research strength of colleges and universities. Strengthen the construction of scientific research management team and build an innovative scientific research management team. With the continuous development of society and the rapid development of economy, the development of colleges and universities has become a long-term worldwide topic. Colleges and universities are facing a critical period of structural transformation, especially for key colleges and universities. Under the new economic normal, economic structure and the market environment has undergone tremendous changes. As an indispensable part, scientific research management personnel play an increasingly prominent role in the development of universities and play a vital role in the healthy development of universities. The level of scientific research management focuses on software improvement and neglects the quality improvement of scientific research management personnel.

The scientific research management department first pays attention to the purchase and improvement of the scientific research management system, but pays less attention to the service awareness, professionalism, knowledge ability level, and management level of the scientific research management personnel, and does not consider the development of the scientific research management personnel in depth. buildup. To achieve a better scientific research management effect, managers need to actively participate in scientific research management, discover deficiencies in scientific research activities in a timely manner, and provide scientific suggestions for the improvement and optimization of scientific research planning. For example, in the big data environment, colleges and universities have increased the construction of scientific research information sharing platforms and arranged specialized personnel to participate in system operation and maintenance to ensure the quality of system operation. At the same time, a special channel has been established for the communication of scientific research management documents and indicators, so that relevant personnel can inquire about scientific research management information. In the big data environment, it is required to change the scientific research management model, and to encourage all employees to participate in scientific research management through an open management platform, to continuously improve the management level.

Human resource managers must establish and improve the enterprise talent guarantee and incentive mechanism, listen carefully to the suggestions and ideas of the employees themselves, and then give correct guidance and demonstration

according to the actual situation of the employees. Regardless of actively participating in the management of colleges and universities, or through learning or training, it can be used to make the faculty and staff more excellent. Both managers and staff must keep up with the development of the times, learn and master more information technology and related Information knowledge, and it is necessary to analyze and match each link of university management, education, and evaluation, to find a correct path suitable for its own development, to have a clear method for its own future development direction, and to promote university information management. The rapid economic development promotes the sustainable development of colleges and universities. Scientific research evaluation emphasizes quantity over quality, scientific research projects focus on project establishment rather than problem conclusion, results over process, and grades of results over transformation and use.

### 3. CONCLUSION

To sum up, in the era of big data, new opportunities are provided for the reform of scientific research management in universities. By providing scientific research management services, it can ensure the smooth development of scientific research activities in universities. Under the new management model, scientific research management information is shared, and the level of management services is higher. Scientific research managers can use big data technology to mine the development information of scientific research projects from scientific research project supervision to provide information support for management strategies, and then play a role in scientific research. The role of management in the efficient development of scientific research in universities.

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