Research on Innovation of Scientific research Management in Universities from the Perspective of Informatization

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Abstract: Scientific research management innovation is the inevitable requirement driven by scientific and technological innovation and the inevitable trend of Scientific research connotation development in universities. The informationization of Scientific research management has become the general trend of the development of management mechanism in various fields, and the informationization construction of Scientific research management in universities has become a construction project which is highly concerned by experts, scholars and educators in the field of education at present. As an extremely important part of the informatization system construction in universities, Scientific research informatization will play an extremely important role in innovating the Scientific research management and improving the Scientific research management level, and also bring far-reaching and meaningful influence to the whole informatization construction in universities. As far as the current situation is concerned, there are still a series of problems in the application of big data technology in China's Scientific research management informationization, so further exploration is needed. Based on this, this paper mainly analyzes the exploration of university Scientific research management informationization under the big data environment.

1. Introduction

As the content of Scientific research management in universities is complex and extensive, it needs the guidance of scientific management concept. Therefore, the application of project management concept in Scientific research management in universities can effectively improve its management level [1]. Since the implementation of university informatization, many universities have actively built various database systems, but these systems are not connected, so there is a strong information island, which will not only cause a lot of waste of resources, but also have a negative impact on the effective management of Scientific research [2]. At this stage, the Scientific research management of universities needs to carry out strict supervision and quality control in all links from the application of Scientific research projects to the conclusion of the project, so as to ensure the smooth development of Scientific research projects [3]. At present, the construction of information technology and the management mechanism of Scientific research in universities have become the general trend of the development of information technology in various fields of education and Scientific research [4]. With the characteristics of cross-border integration, innovation driven and connecting everything, the Internet gives the Scientific research management of universities the advantages of information sharing, timely communication and comprehensive management, and plays an important role in improving the efficiency and quality of Scientific research management of universities [5].

In the process of Scientific research management in universities, the literacy and level of Scientific research managers will greatly affect the development of Scientific research in universities. Especially under the development background of informatization, the quality, professional skills and informatization level of Scientific research management have an important impact on the Scientific research management in universities [6]. As an important teaching and research group, the technical level and research literacy of university Scientific research managers directly affect the level of information Scientific research service. From the perspective of informatization, Scientific research managers tend to carry out various types of academic research

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activities through the network platform, systematically and planned educational research and identify research data [7]. As an extremely important part of the construction of university information system, Scientific research informatization will not only play an extremely important role in innovating university Scientific research management and improving Scientific research management level, but also have a far-reaching and meaningful impact on the whole information construction of universities [8]. Scientific research project management tells Scientific research management staff to jump out of the business circle of the Department and adhere to people-oriented and positive innovation in management practice. The management of Scientific research projects in universities involves a wide range of contents and complicated operating procedures. The reform and innovation of management methods is imminent. Only by continuously improving the literacy and level of Scientific research managers in universities can we provide support for the innovation of Scientific research work.

2. Necessity of introducing big data into Scientific research management in universities

2.1. Improve the scientificity of Scientific research topics

It is a difficult and serious job to determine the topic of Scientific research and declare the Scientific research work. As far as the current situation is concerned, the topic selection of Scientific research work in universities will be chosen according to the research guide, which will lead to the narrow scope of topic selection, and may also lead to the disconnection between the topic and social needs. According to the main characteristics of the current information horizon, we need to explore the basic qualities that Scientific researchers should possess, of which information awareness and emotion are typical manifestations. With the experience of project management, the manager of Scientific research project is the project leader, and any related matters in Scientific research project need to be the responsibility of the Scientific research project manager, whose responsibility includes the application of Scientific research project to the conclusion of Scientific research project. For educators, they should be intuitive and sensitive to educational information, especially to valuable information of educational research. Specifically, we can improve our research ability through information technology, and use existing information to collect potential information and apply it to practical management. Through big data technology, the Scientific research management departments of universities can mine relevant data based on social needs, analyze them deeply, and then provide them to Scientific researchers, providing assistance for the determination of project declaration. In addition, big data technology can also build a contact platform for university researchers and social related units, so as to realize resource sharing, further reduce Scientific research costs, and finally obtain good benefits.

2.2. Help to optimize data resources

As far as the research work of Scientific research projects in universities is concerned, it is often supported by a large amount of data. However, as far as the specific situation is concerned, there are still a series of problems in the Scientific research departments of universities, which are manifested in the fact that a large number of data are idle in the database, but researchers are still collecting and even repeatedly applying some data with low value. In the mode of project management, it is the project manager who is responsible for transmitting the specific work arrangement information, and his task is to ensure that the work information is accurately and timely transmitted to the staff. Therefore, in the management of Scientific research projects in universities, we can refer to this working mode in project management, and let the Scientific research project manager be responsible for transmitting the latest Scientific research information to relevant Scientific research personnel, so as to avoid the mistakes of Scientific research projects caused by information delay. For researchers, on the one hand, they need to have good Scientific research skills, including mastering network knowledge and technical terms, operating experience, fault analysis and so on. On the other hand, it is necessary to have the literacy and foundation of Scientific research, determine the thinking of problem solving on the premise of clear research problems, analyze the

role of research tools, and finally organize and study through the collected data. Under the big data technology, the data can be integrated and unified, and the data can be layered and classified, which makes it more convenient for researchers to apply it, which not only helps to improve the data utilization efficiency, but also promotes the research progress.

3. Information construction of Scientific research management in universities

3.1. Build a Scientific research management information platform in universities

Informatization and networking provide a brand-new working environment for Scientific research management in universities. The information network technology platform has become a brand-new carrier for Scientific research management in universities, and has gradually replaced the traditional Scientific research management methods in universities and become a new position for Scientific research management in universities. As the core content of informatization construction, university Scientific research management information platform or system stores a large amount of Scientific research information and data. When hackers attack it, it may cause the loss and destruction of Scientific research data, and the system or platform will not work normally, which will affect the order of Scientific research management in universities. If it is not adjusted in time, it will have more serious adverse consequences, resulting in irreparable losses in universities. The perfect Scientific research management mechanism in universities is the key to promote the informationization of Scientific research management in universities, and plays a very important role. Therefore, the Scientific research departments of universities should pay more attention to it, improve and construct it from various aspects, and ensure that the informatization construction can be carried out stably. The ultimate goal of informatization construction of Scientific research management in universities is to realize the sharing of Scientific research data in universities. To achieve this goal, in the process of informatization construction of Scientific research management in universities, it is necessary to formulate a unified informatization standard, which can also standardize the business process of Scientific research management in universities. Under the guarantee of these mechanisms, the informationization of Scientific research management in universities will be well constructed and promoted, paving the way for the development of universities.

3.2. Strengthen the construction of talent team

In the big data environment, we should pay attention not only to the innovation of Scientific research ideas, but also to the construction of talents. On the one hand, it is imported from outside, which improves the entry threshold, ensures that the recruited personnel can skillfully apply big data technology, and injects fresh blood into the Scientific research team of universities. On the other hand, pay attention to the training of existing Scientific research personnel, organize relevant lectures regularly, and teach them new information and skills. Scientific research management departments must highlight the concept of service, put people first, and provide good comprehensive services for Scientific researchers. The main body of scientific and technological activities is the vast number of Scientific research personnel. Compared with public universities, the Scientific research conditions and living conditions that universities can provide for them are not dominant, so we must work hard on "service". Figure 1 shows the network structure system of talent information fusion management.

In terms of information processing and analysis ability, we should especially emphasize the ability of Scientific research managers to analyze documents, and strengthen training and guidance based on the assistance of information technology. If it is subject professional knowledge, it can promote the professional cooperation between subject field and information technology field, establish a network platform to analyze and solve problems, and complete related work in the way of Scientific research cooperation. In order to stimulate everyone's enthusiasm for Scientific research, the service quality of Scientific research management department is particularly important. School Scientific research managers must give full play to their subjective initiative and strengthen

their own skills, so as to provide high-quality management services for Scientific research personnel. Establish an effective incentive mechanism to encourage teachers to participate in Scientific research. In this process, it can also provide excellent researchers with opportunities to study abroad, such as studying abroad, and then organize seminars to share the learned experience and knowledge. In this way, Scientific research management in universities can keep up with the pace of development of the times and achieve long-term and stable development goals.

Figure 1 Network structure system of talent information integration management

4. Conclusions

Under the big data environment, the development of Scientific research management informationization in universities is very important. As far as the specific situation is concerned, big data technology has been widely used in all aspects of society and achieved remarkable results. To develop the current Scientific research work in universities, we should improve the understanding of Scientific research management informationization, speed up the construction of Scientific research management informationization, and promote the improvement of Scientific research competitiveness. Under the condition of informationization, educational informationization Scientific research began to appear, and higher requirements were put forward for the information analysis and processing ability of Scientific research workers. It is particularly important to improve the comprehensive quality of Scientific research managers from the perspective of informationization, which is an important measure to improve the Scientific research level of universities at present, and also an important driving force to practice the national strategy of developing Scientific research strength in higher education. In view of the basic goal of improving ability, universities should make overall planning and guidance for management work and establish corresponding management systems and training methods according to their own actual conditions. Through the informatization construction of Scientific research management in universities, it can not only narrow the gap with public universities in Scientific research management level, but also provide necessary guarantee for improving the Scientific research level of universities.

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