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Research on Performance Evaluation of Scientific Research Funding in Universities Owned by Jiangsu Province

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Abstract**—***Under the background of "Delegation, regulation and service", China has continuously increased the investment in scientific research funding in colleges and universities. However, the issues of poor efficiency and inadequate management of scientific research funding in colleges and universities have become increasingly prominent. One of the pressing issues to be addressed in the management of scientific research in colleges and universities is how to evaluate the performance of scientific research funding in an acceptable and suitable way and enhance the governance approaches. This paper combines the present state of the scientific research funding management in colleges and universities, builds a performance evaluation index system of scientific research funding in colleges and universities based on the AHP method, which is used to ascertain the weights of the indexes. Data from the universities owned by Jiangsu Province is gathered using the questionnaire survey method. Later, a case of University J is examined using a comprehensive evaluation of scientific research funding via fuzzy comprehensive evaluation approach. At last, it offers recommendations for three different ways to promote the governance route of scientific research funding: government level, university level and researcher level.*

Keywords**—** *Higher education, research funding management, AHP approach.*

I. INTRODUCTION

"Delegation, regulation and service" refers to streamlining administration, delegating power, improving regulation and optimizing services. China seeks to expedite the execution of "Delegation, Regulation, and Service" reforms in scientific research, having issued a series of documents and policies regarding scientific research funding to invigorate researchers and enhance the dynamism of scientific innovation.

Jiangsu Province, a significant region in education and economics, has made success in the reform of scientific research funding. Nonetheless, the governance framework for such funding necessitates additional enhancement. During the reform of "Delegation, regulation and service" for scientific research funding, certain schools, faculties, and project leaders continue to face challenges including mismanagement, inadequate handling, and poor utilization. The Government of Jiangsu Province has recommended the creation of a comprehensive evaluation system for scientific research investment focused on R&D quality, introducing new criteria for assessing the performance of scientific research funding.

Consequently, adapting to the existing national management system of scientific research funding, effectively conducting performance evaluation, and enhancing governance procedures has become an urgent challenge for research management personnel in colleges and universities.

II. CURRENT STATUS OF RESEARCH ON SCIENTIFIC RESEARCH FUNDING IN COLLEGES AND UNIVERSITIES

Currently, the predominant study on university research funding management has been defined by the competitive management model pioneered by the United States and the complete and refined management approach spearheaded by the United Kingdom.

Countries such as the United States, Japan, and France use a competitive research funding model to stimulate innovation (Gao Yang, and Yang, Chongqi, 2017), promoting competition in project submissions to enhance the efficacy of funding utilization. This method has also incited discussions within the academic community. The competition concept undoubtedly invigorates scientific research and encourages scholars to explore autonomously. Nevertheless, when rivalry becomes excessively fierce, it inevitably detrimentally impacts scientific research outcomes. The emphasis on the amount of research outputs rather than quality results in diminished research innovation and other adverse outcomes (Otto Auranen, 2010). This may lead to a competition for research funding, compelling researchers to devote considerable time to ideas and project applications instead of focusing on the execution of scientific research (Gross K and Bergstrom CT, 2019).

The UK, on the other hand, puts more emphasis on regulating the management of university scientific research funding based on a refined full-cost accounting system and the REF scientific research quality evaluation system. After a number of explorations, the UK's university scientific research evaluation system was finally determined to be based on data indicators, retaining the necessary expert review procedures (Wang Min and Zhang Guobing, 2015). This model focuses on the construction of the management system, believing that a scientific and reasonable management system can satisfy the interests of all parties and enhance the overall effectiveness of the use of scientific research funding.

Currently, the management method of scientific research funding in China is a comprehensive approach that involves the management of the entire process. This approach is centred on the transformation of scientific research results, the level of

scientific and technological innovation, and other elements. Based on scientific research data, indicators such as the ability to provide social service, the economic benefits of scientific research and the cultivation of high-level talent teachers are selected to comprehensively evaluate the use of scientific research funding. Nevertheless, there continue to exist problems with the management of scientific research funding, including the design of the management system, internal control, and the transformation of scientific research results.

In terms of management system design, Song Xupu and Gu Quan (2019) executed a questionnaire survey on the utilization of scientific research funds and specific management systems in universities, revealing many teachers concentrated on the proportion of labour cost and management fee ratios. Furthermore, the report highlighted a delay in the distribution of government scientific research funds, resulting in a contraction of the project's actual implementation timeline. Information asymmetry, ineffective communication between researchers and managers, and mutual distrust have led to challenges in the management and utilization of scientific research funding (Meng Xin, Yu Hongjun, 2018). The inadequate level of information in fund management leads to diminished efficiency and disjointed management processes, a recurring issue in the management structure (Guo Juan, 2018).

From the perspective of internal control, Wu Xiaofen and Liu Yajing (2019) believed that to implement the policy of " Delegation, Regulation, and Service " in the management of scientific research funds, it is necessary to further revise and improve the internal control system of scientific research funds in colleges and universities to standardize the management of scientific research funds while delegating power and relaxing restrictions.

From the perspective of the transformation of scientific research funds, Gao et al. (2017) believed that when making policies related to the management of scientific research funds, we should optimize the supply structure and strengthen the transformation rate of scientific research results according to the different characteristics of the transformation stage of scientific and technological achievements while ensuring the total supply of scientific research funds.

To address previously mentioned issues, Chinese researchers have conducted studies from various perspectives. Yang and Yuan (2019) contended that universities can enhance resource allocation and service efficiency by integrating departments in the reform of scientific research management mechanisms. In the reform of the "large department system," functional departments with analogous functions and overlapping business scopes should be organized and integrated to create an efficient university management organization characterized by clearly defined functions, established responsibilities, and a flat organizational structure. Li Hong et al. (2019), referring to the COSO framework in corporate audit and from the perspective of collaborative governance between internal control and external supervision, claimed that a scientific and reasonable internal control system should be established to address the primary risk factors associated with such funding in universities. Li Dongmei (2018) argued that the existing scientific research system leads many academic researchers to prioritize the application of research projects and the publication of papers over the conversion of research outcomes.

Constructing a performance evaluation system for university scientific research funding can effectively alleviate the current problems in the management of scientific research funding. (Jiang Liang 2021).

In the field of academia, there is a diverse array of research types on scientific research funding performance evaluation methods, such as data envelopment analysis, balanced score card, analytic hierarchy process, fuzzy comprehensive evaluation method and factor analysis. Diverse methodologies are implemented by academicians to evaluate their investigations. For instance, Xue Xiaolin (2021) employs the balanced score card, analytic hierarchy process, and key performance indicators to identify specific indicators for the purpose of conducting empirical research and building models regarding the special funds for education and teaching reform at S University. The fuzzy evaluation method was employed to conduct empirical research on the budget management index data, and the balanced score card and strategic map theory were employed to establish the performance evaluation index system of university budget management by Shi Shuxia (2019).

This paper mainly adopts analytic hierarchy process (AHP) and fuzzy comprehensive evaluation method to construct the performance evaluation system of scientific research funding, so as to explore the realistic path to optimize the management of scientific research funding in universities.

III. PERFORMANCE EVALUATION SYSTEM OF SCIENTIFIC RESEARCH FUNDING MANAGEMENT IN UNIVERSITIES

A. Establishment of a performance evaluation system for the management of scientific research funding in universities

This paper conducts a comprehensive analysis of the literature and combines the actual situation and existing problems of the management performance evaluation of scientific research funding in universities. Drawing on the merits of the current various editions of the performance evaluation index system for scientific research funding management, it initially establishes a performance evaluation index system for scientific research funding management from four aspects: the performance of funding investment， the performance of funding budgeting, the performance of budget execution and the performance of the output of scientific research funding.

TABLE 1. Performance evaluation index system of scientific research funding management

target level	criterion level	programme level
Scientific Research Funding Management Performance Evaluation	Performance in the management of scientific research funding investment(A)	Funding inputs: funding inputs for research projects (A1)
		Hardware inputs: actual inputs of supporting hardware (A2)
		Human resources inputs: research personnel input (A3)
	Performance in the management of scientific	Budget compliance: budget compliance of research projects (B1)

	research funding budgeting(B)	Budget review and approval: whether the budget plan has been rigorously reviewed and approved (B2)
		Budget services: availability of services for budget formulation and adjustment (B3)
	Performance in the management of scientific research funding budget execution (C)	Project progress: Whether the project has been successfully implemented as planned, and whether programme adjustments have been justified (C1)
		Status of expenditures: reasonableness of expenditures and adjustments to budgetary provisions (C2)
		Project completion: whether the project is completed in time, whether the stage results are published and whether the expected quantity is achieved (C3)
	Performance in the management of scientific research funding output (D)	Scientific research achievements: books, papers, academic reports, awards for achievements, number of patents, etc.(D1)
		Market transformation: number of scientific research results transformed, integration of industry, academia and research, etc. (D2)
		Talent development: Scientific research team construction and talent cultivation (D3)
		Economic benefits: direct and indirect economic benefits from the use of technical results (D4)
		Social benefits: the degree of improvement in labor productivity (D5)
		Environmental benefits: the reduction of energy consumption and the contribution of the application of technological achievements to pollution emission(D6)

After establishing the performance evaluation index system of scientific research funding management, the weights of the indexes are determined by using the analytic hierarchy process. A questionnaire survey is conducted to the selected 50 Jiangsu provincial colleges and universities' financial department managers, scientific research department managers, information office scientific research system managers, and the person in charge of scientific research funding. The weights of the evaluation index system are determined by analyzing the results of the questionnaire survey, and the model for the evaluation of scientific research funding management performance in Jiangsu provincial universities is subsequently constructed.

The weights of the indicators are determined by analyzing the questionnaire results through Expert Choice 2000. The performance evaluation index system and weights for scientific research funding management are as follows:

TABLE 2. Performance evaluation index system and weights of scientific research fund management

target level	criterion level	weights	programme level	weights
Scientific Research Funding Management Performance Evaluation	Performance in the management of scientific research funding investment(A)	16.10%	Funding inputs: funding inputs for research projects (A1)	38.30%
			Hardware inputs: actual inputs of supporting hardware (A2)	13.40%
			Human resources inputs: research personnel input (A3)	48.30%
	Performance in the management of scientific research funding budgeting(B)	13.80%	Budget compliance: budget compliance of research projects (B1)	45.30%
			Budget review and approval: whether the budget plan has been rigorously reviewed and approved (B2)	22.60%
			Budget services: availability of services for budget formulation and adjustment (B3)	32.10%
	Performance in the management of scientific research funding budget execution (C)	29.20%	Project progress: Whether the project has been successfully implemented as planned, and whether programme adjustments have been justified (C1)	14.60%
			Status of expenditures: reasonableness of expenditures and adjustments to budgetary provisions (C2)	29.30%
			Project completion: whether the project is completed in time, whether the stage results are published and whether the expected quantity is achieved (C3)	56.10%
	Performance in the management of scientific research funding output (D)	40.90%	Scientific research achievements: books, papers, academic reports, awards for achievements, number of patents, etc.(D1)	12.90%
			Market transformation: number of scientific research results transformed, integration of industry, academia and research, etc. (D2)	12.80%
			Talent development:Scientific research team construction and talent cultivation (D3)	21.90%
			Economic benefits: direct and indirect economic benefits from the use of technical results (D4)	13.10%
			Social benefits: the degree of improvement in labor productivity (D5)	20.10%
			Environmental benefits: the reduction of energy consumption and the contribution of the application of technological achievements to pollution emission(D6)	19.20%

Specifically, in the established index system, performance in the management of scientific research funding output constitutes the largest share, representing 40.9%. The majority of respondents assert that the performance in the management of scientific research funding output in colleges and universities is crucial, as it most accurately reflects the management quality and utilization efficiency of these resources. In recent years, China has increasingly emphasized environmental protection, which is reflected in the survey results that environmental benefits account for as high as 19.2%. Performance in the management of scientific research funding budget execution accounts for 29.2%, among which the completion of projects

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accounts for 56.1%. It can be seen that respondents are concerned about the completion of scientific research projects and the publication of results, which is also a significant manifestation of the implementation of scientific research funds. Performance in the management of scientific research funding investment constitutes 16.1%, with human investment comprising 48.3%, illustrating the significance of research individuals to project success. Performance in the management of scientific research funding budgeting was merely 13.8% of the total.

B. *Using the fuzzy comprehensive evaluation method for evaluation*

The fuzzy comprehensive evaluation method is mostly employed in assessments involving complicated evaluation objects and results influenced by subjective factors. The characteristics of the management of scientific research funding are analyzed above, revealing their complexity and subjectivity, thereby making this method appropriate for evaluation. This paper employs the fuzzy evaluation approach to comprehensively evaluate the management of scientific research funding, and the specific procedures are as follows:

The determination of the review set.

In this study, a review set was used to evaluate the performance of scientific research funding through the distribution of questionnaires. First, define a row vector with four levels of "poor," "medium," "good," and "excellent," denoted as V = (V_1,V_2,V_3,V_4). A column vector $(90,70,50,30)^T$ is established to assign values to the above review set, thereby converting qualitative assessments into quantitative outcomes. "Excellent" corresponds to a score of 80-100; "Good" corresponds to a score of 60-80; "Medium" corresponds to a score of 40-60; "Poor" corresponds to a score of 0-40. A set of evaluation factors R = {R_1, R_2, R_3, R_4} is designated for the four established indications. Define the set of performance in the management of scientific research funding investment index layers as R_1 = {A_1, A_2, A_3}, where A_1 denotes funding inputs, A_2 signifies hardware inputs, and A_3 indicates human resources inputs. Respectively, this method establishes the performance in the management of scientific research funding budgeting index layer set R_2 = {B_1, B_2, B_3}, the performance in the management of scientific research funding budget execution index layer set R_3 = {C_1, C_2, C_3}, and the performance in the management of scientific research funding output set R_4 = {D_1, D_2, D_3, D_4, D_5, D_6}.

The determination of index membership at all levels.

Initially, the questionnaire was formulated based on the previously established index system. Subsequently, in accordance with the defined review set, four rating options were provided for each indicator: "poor", "medium", "good", and "excellent". Respondents were then invited to provide their evaluation. Ultimately, the frequency of each rating option was counted, and the respective counts were divided by the total number of valid questionnaires to obtain the membership vector for each indicator.

Conducting fuzzy integrated evaluations.

The membership vector B of the upper level index can be derived by multiplying the weight vector W of the index by the corresponding membership matrix, based on the calculated weights and memberships of each index. The formula for calculation is as follows:

$$B = W \times R = \begin{Bmatrix} r_{11} & r_{12} & \cdots & r_{1n} \\ r_{21} & r_{22} & \cdots & r_{2n} \\ \cdots & \cdots & \cdots & \cdots \\ r_{m1} & r_{m2} & \cdots & r_{mn} \end{Bmatrix}$$

In this way, the membership vector for the performance evaluation of scientific research funding management at the target layer can be ultimately obtained. The performance evaluation result D of scientific research funding management can be calculated by multiplying this vector by the previously defined score column vector：

$$D = \{90,70,50,30\}^T \times \{R_1, R_2, R_3, R_4\}$$

IV. Case Analysis

According to the performance evaluation index system established above, the scoring questionnaire is designed, with the specific questionnaire included in Appendix B. This study involves the distribution of 50 scoring questionnaires to J University, primarily targeting the finance department, research department, audit department, and graduate students engaged in research projects. The membership degree of the questionnaire has been processed, and the calculated membership degree is presented in Table 3.

Initially, the membership vector for each index at the criterion level is calculated based on the previously determined index weight and membership degree. The calculation process of the membership vectors of performance in the management of scientific research funding investment (Indicator A), performance in the management of scientific research funding budgeting (Indicator B), performance in the management of scientific research funding budget execution (Indicator C), and performance in the management of scientific research funding output (Indicator D) are as follows:

$$R_1 = (38.3\%,13.4\%,48.3\%) \cdot \begin{Bmatrix} 0.51 & 0.26 & 0.23 & 0.00 \\ 0.22 & 0.12 & 0.50 & 0.16 \\ 0.16 & 0.38 & 0.44 & 0.02 \end{Bmatrix} = (0.30,0.30,0.37,0.03)$$

$$R_2 = (45.3\%,22.6\%,32.1\%) \cdot \begin{Bmatrix} 0.56 & 0.32 & 0.12 & 0.00 \\ 0.62 & 0.28 & 0.10 & 0.00 \\ 0.29 & 0.31 & 0.40 & 0.00 \end{Bmatrix} = (0.49,0.31,0.20,0.00)$$

$$R_3 = (14.6\%,29.3\%,56.1\%) \cdot \begin{Bmatrix} 0.16 & 0.54 & 0.30 & 0.00 \\ 0.29 & 0.31 & 0.40 & 0.00 \\ 0.36 & 0.56 & 0.08 & 0.00 \end{Bmatrix} = (0.31,0.48,0.21,0.00)$$

$$R_4 = (12.9\%,12.8\%,21.9\%,13.1\%,20.1\%,19.2\%) \cdot \begin{Bmatrix} 0.30 & 0.54 & 0.16 & 0.00 \\ 0.00 & 0.24 & 0.68 & 0.08 \\ 0.27 & 0.39 & 0.34 & 0.00 \\ 0.10 & 0.22 & 0.45 & 0.23 \\ 0.21 & 0.41 & 0.27 & 0.11 \\ 0.05 & 0.39 & 0.41 & 0.15 \end{Bmatrix} = (0.16,0.37,0.37,0.10)$$

The calculation process of the membership vector for scientific research funding management performance evaluation is as follows:

$$R = (16.1\%,13.8\%,29.2\%,40.9\%) \cdot \begin{Bmatrix} 0.30 & 0.30 & 0.37 & 0.03 \\ 0.49 & 0.31 & 0.20 & 0.00 \\ 0.31 & 0.48 & 0.21 & 0.00 \\ 0.16 & 0.37 & 0.37 & 0.10 \end{Bmatrix} = (0.27,0.38,0.30,0.05)$$

Finally, the membership vector (0.27,0.38,0.30,0.05) of scientific research funding management performance evaluation is calculated. The performance evaluation score of

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scientific research funding management at University J can be derived by multiplying the membership vector with the score column vector. The calculation process is as follows:

$$D = (0.27,0.38,0.30,0.05) \times (90,70,50,30)^T = 67.4$$

According to the evaluation criteria defined previously, a score of 60-80 means "good". Consequently, J University's scientific research funding management achieved a performance evaluation score of 67.4, categorizing its performance level as "good".

TABLE 3. Membership degree of each index

Programme level	Weights	Degree of membership			
		Excellent	Good	Medium	Poor
Funding inputs: funding inputs for research projects (A1)	38.30%	0.51	0.26	0.23	0
Hardware inputs: actual inputs of supporting hardware (A2)	13.40%	0.22	0.12	0.5	0.16
Human resources inputs: research personnel input (A3)	48.30%	0.16	0.38	0.44	0.02
Budget compliance: budget compliance of research projects (B1)	45.30%	0.56	0.32	0.12	0
Budget review and approval: whether the budget plan has been rigorously reviewed and approved (B2)	22.60%	0.62	0.28	0.1	0
Budget services: availability of services for budget formulation and adjustment (B3)	32.10%	0.29	0.31	0.4	0
Project progress: Whether the project has been successfully implemented as planned, and whether programme adjustments have been justified (C1)	14.60%	0.16	0.54	0.3	0
Status of expenditures: reasonableness of expenditures and adjustments to budgetary provisions (C2)	29.30%	0.29	0.31	0.40	0
Project completion: whether the project is completed in time, whether the stage results are published and whether the expected quantity is achieved (C3)	56.10%	0.36	0.56	0.08	0
Scientific research achievements: books, papers, academic reports, awards for achievements, number of patents, etc.(D1)	12.90%	0.3	0.54	0.16	0
Market transformation: number of scientific research results transformed, integration of industry, academia and research, etc. (D2)	12.80%	0	0.24	0.68	0.08
Talent development: Scientific research team construction and talent cultivation (D3)	21.90%	0.27	0.39	0.34	0
Economic benefits: direct and indirect economic benefits from the use of technical results (D4)	13.10%	0.1	0.22	0.45	0.23
Social benefits: the degree of improvement in labor productivity (D5)	20.10%	0.21	0.41	0.27	0.11
Environmental benefits: the reduction of energy consumption and the contribution of the application of technological achievements to pollution emission(D6)	19.20%	0.05	0.39	0.41	0.15

V. Proposals for Optimizing the Governance Framework of Scientific Research Funding

A. Government level

Deepen the reform of streamlining administration and delegating power, optimize the approval process. The Jiangsu provincial government ought to grant greater autonomy to colleges and universities, and further simplify the application, approval, and acceptance procedures for scientific research projects so as to further deepen the "delegation, regulation and service" policy. We can guarantee the rapid initiation and smooth progression of scientific research projects by streamlining the procedures, lowering the entry threshold for research projects, and enhancing the efficiency of approval. Furthermore, the government should elucidate the boundaries of authority and responsibility in the management of scientific research funding, streamline the approval process, and ensure that authority and responsibility are clearly defined.

Establish an information supervision platform to ensure that funds are utilized in accordance with legislation. Ensure the compliance and efficiency of the use of funds by establishing a sound research funding information supervision platform for colleges and universities, facilitating data sharing and real-time monitoring from a macro perspective, timely following up on the project, and conducting regular reviews of the use of scientific research funding. In order to effectively deter violations and ensure the proper use of scientific research funds, the audit and inspection processes in colleges and universities are supposed to be enhanced. This additionally encourages researchers to adhere to normative research costs.

Improve the performance evaluation and incentive mechanism to invigorate innovation vitality. The Jiangsu provincial government should implement a systematic and rational performance evaluation system for scientific research funding in colleges and universities, taking into account the output, transformation, and societal benefits of research achievements. A thorough assessment of scientific research initiatives must be conducted to guarantee the objectivity and precision of the evaluation outcomes, as well as to confirm that the funded scientific research projects possess practical scientific and social value.

B. University level

Enhance the management system by clearly defining responsibilities and authorities. Colleges and universities ought to amend and enhance the system of scientific research funding management in accordance with the national policy of "delegation, regulation and service" and the management requirements of scientific research funding. Establishing explicit standards and operational protocols for the allocation of scientific research funding can mitigate researchers' uncertainties over funding utilization, hence ensuring compliance and enhancing efficiency in the utilization of funds.

Optimize service procedures and internal control to mitigate risks. Colleges and universities should build and enhance a regular communication and interdepartmental information exchange platform to maximize collective advantages. It should consolidate the information systems of research, finance, audit, and other departments to facilitate comprehensive management, streamline the reimbursement process for scientific research funding, enhance reimbursement efficiency, thus alleviating the burden of researchers. Simultaneously, the internal control system must be reinforced to supervise and govern the entire process of scientific research funding utilization, thereby mitigating risk.

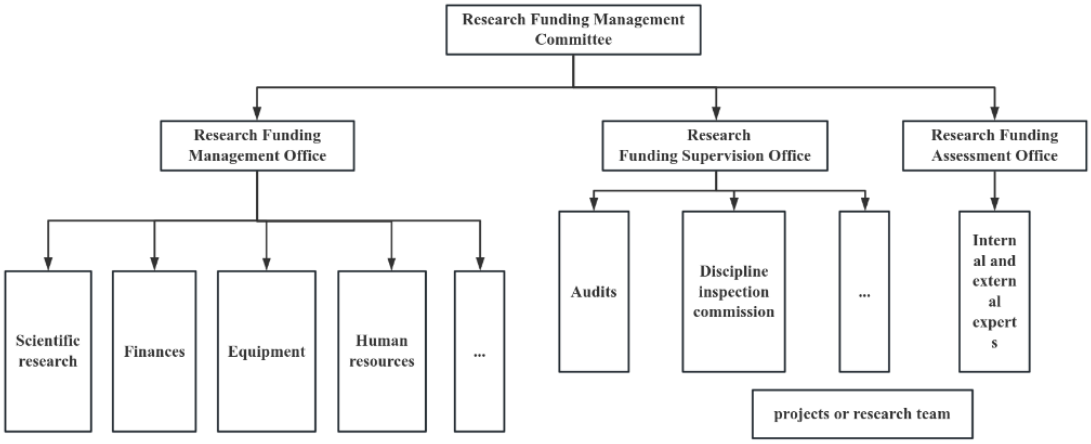

Fig. 1. Collaborative Management Framework for University Research Funding.

Create an Information-based research platform in colleges and universities to enhance the efficiency of scientific funding utilization. Colleges and universities should make use of informational resources to enhance the supervisory service model and facilitate the coordination of the process of management through sharing information. Utilize electronic invoices, mobile Internet, financial cloud, and other contemporary information technologies to improve the accessibility of scientific research funding. Furthermore, colleges and universities could further enhance the development and construction of platforms like "Internet + government affairs," which facilitate minimizing redundant oversight and alleviating the burden on researchers.

Enhance the performance evaluation system for scientific research funding and ensure the standardized utilization of funds. To enhance accountability in funding utilization, colleges and universities should establish and improve the performance evaluation system for the scientific research funding management. Specifically, colleges and universities are supposed to utilize a comprehensive, objective, and systematic index system to evaluate the scientific research funding management. For instance, in the formulation of indicators, they ought to emphasize the quantity of published papers, patents and awards, while also considering the economic, social and environmental impacts of research, as well as the training of research personnel.

C. Researcher level

Researchers must adhere rigorously to the relevant regulations and protocols regarding scientific research funding management. They ought to guarantee the legality and compliance of funding utilization by enhancing transparency and openness, while proactively embracing oversight and inspection. Simultaneously, researchers must enhance their self-restraint and self-regulation regarding the utilization of scientific research funding, while proactively improving their management capabilities and proficiency in handling these funds, thereby ensuring robust support for the effective execution of scientific research projects.

Enhance performance awareness and concentrate on results. Researchers must focus on the output and transformation of research results, while enhancing the efficiency of utilization of scientific research funding and actively participating in the evaluation and assessment of scientific research projects. Simultaneously, researchers ought to enhance collaboration and exchange with the industry, facilitate the transformation and application of research outcomes.

Enhance collaboration and resource sharing. Researchers should enhance collaboration and partnerships with other universities and research institutions to disseminate management experiences and practices. They are supposed to participate in academic conferences and seminars actively so as to comprehend contemporary research and policy trends, thereby expanding their scientific research perspectives and concepts. Simultaneously, researchers ought to pursue collaborative possibilities, jointly apply for scientific research projects, share resources and technologies, and enhance the efficiency and innovative capacity of scientific research funding.

The above measures and recommendations seek to enhance the modernization of governance capacity and system of scientific research funding in colleges and universities owned by Jiangsu Province in the context of "delegation, regulation and service," thereby facilitating the successful development of research activities in these higher education institutions. The governance level of scientific research funding can only be thoroughly enhanced by the collaborative efforts of the government, universities, and researchers, thus fostering the positive advancement of research.

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