

## Incentive Oriented Research on the Management Policy of Horizontal Project Funds in Local Universities

Yan Bao

Jilin Engineering Normal University, Changchun Jilin 130052

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**Abstract.** To assess the comprehensive strength of a university, we should not only look at its own discipline construction, talent introduction, research team research and development ability, and cultivate students' comprehensive quality, but also look at the contribution made by the school in serving local social development and economic construction. And the best basis to judge all this is to look at the size of the horizontal project project funding that the school received. With the development of science and technology in our country, the scale and proportion of the horizontal project funding in the scientific research funds of colleges and universities are getting larger and larger. Of course, on the whole, most universities can correctly implement the national financial and economic policies and school regulations, strictly supervise and regulate the use of horizontal scientific research funds, so as to ensure the rapid development of horizontal scientific research. Cannot be denied, however, there are also considerable understanding with transverse scientific research management in colleges and universities does not reach the designated position, or management system is not perfect in itself, or to his casual attitude cause transverse scientific research funds management confusion, serious impact on the research work smoothly, some even derivative discipline and corruption, therefore, paid close attention to and strengthen the horizontal scientific research management and use of funds, improve the efficiency of using scientific research funds to ensure the healthy development of the scientific research work in colleges and universities is imperative. In view of the prominent problems existing in the management of horizontal scientific research funds in local universities, this paper puts forward some countermeasures and Suggestions from the aspects of various funds management policies.

### 1. Introduction

In recent years, the scientific research strength and level of China's universities have been greatly improved, and the r&d cooperation between local governments, enterprises and universities has been continuously strengthened. The scale and proportion of the horizontal scientific research funds in universities are becoming larger and larger, and correspondingly, there are more and more problems in the management of the horizontal scientific research funds [1]. Of course, on the whole, most universities can correctly implement national financial and economic policies and school regulations, strictly supervise and regulate the use of horizontal scientific research funds, so as to ensure the rapid development of horizontal scientific research [2]. However, it is undeniable that some institutions of higher learning do not have a complete understanding of the management of horizontal research funds, or their own management system is not sound enough, or their attitude is careless, leading to the confusion of the management of horizontal research funds, which seriously affects the smooth development of research work, and some even generate disciplinary violations and corruption [3]. Therefore, it is imperative to pay high attention to and practically strengthen the management and use

of horizontal scientific research funds, improve the use efficiency of scientific research funds, and ensure the healthy development of scientific research in universities [4].

The introduction of relevant national documents further clarified and standardized the prominent problems in the management and use of scientific research funds. As the management of scientific research funds in universities is a complicated system engineering, there are still many problems [5]. Researchers are underpaid, their mental work is not fully recognized, and their enthusiasm for scientific research is dampened. The complicated financial system almost cultivates scientific researchers into professional accountants, which wastes their precious time and causes them to resist. Unpredictable research activities cannot enter the budget and research work is limited. The evaluation system of quick success and quick profit makes researchers gradually get away from the essence of research work and so on [6]. In the process of rapid development, a series of problems appear, which is inevitable in management practice [7]. To attach importance to and find out the causes of these problems, solve the problems fundamentally with appropriate medicine, and then improve the relevant regulations and systems is the inevitable requirement to enhance the enthusiasm of Chinese researchers and build China into an innovative country. It is of great significance to reform the current management regulations and system of scientific research funds [8]. Exploring a scientific and reasonable scientific research management system in universities is conducive to the healthy development of scientific research work in universities, the scientific and technological innovation of the country, and the prosperity of the country [9].

In this paper, on the basis of the theory of human capital, etc, on the present situation and problems of China's scientific research management research, analysis of the root causes of problems and put forward countermeasures, helps to reveal the law of scientific research funds management behavior and the nature, for the good operation of scientific research funds management mechanism in colleges and universities to provide experience for reference and policy basis [10].

## **2. Methods**

### **2.1 Research Methods of Scientific Research Funds Management in Colleges and Universities.**

Firstly, review a large number of recent literature at home and abroad to fully understand the research status of research fund management at home and abroad, and try to understand the latest development trend of policies and regulations on research fund management in universities in China, and analyze the problems and causes of research fund management in China. Combine the existing management methods at home and abroad with the current management situation of China's scientific research funds, select the essence and discard the dross, and promote the research on the basis of the existing research results and policies.

Secondly, the interview can be used to understand the details of a certain aspect, so as to discover the problems behind these situations. For different people develop different interview outline, interview the K line workers in university academy dean, bursar's office and part of the school of scientific research personnel, access to the school management on scientific research in the specific data and information, understand the scientific research personnel and scientific management for the current inner real ideas of scientific research management system, to sum up and carry on rational analysis.

Finally, taking K university as an example, I first looked up the management documents of scientific research funds in K university and understood the overall situation of the management of

scientific research funds in K university. Then, the research fund data and policy implementation of K university were collected through interviews, and the research fund management of K university was studied in detail. From K more problems of university scientific research management of the current our country university scientific research management widespread influence on two main problems, to analyze the causes of these two problems, and draw lessons from the advanced experience of foreign and domestic parts and units put forward countermeasures and Suggestions of perfecting our country's current scientific research management system.

## **2.2. Management Scheme of Scientific Research Funds.**

First, project bidding: the scientific research projects determined by relevant departments are open to the public bidding of universities and research institutions nationwide. Second, submit the plan: the person in charge of the scientific research project who intends to apply for the project shall determine the steps for the project, prepare a detailed budget and submit it to the competent department. Third, sign a contract: after reviewing the project plan, the competent department will sign an execution contract with legal effect with the project leader if it agrees. Fourthly, appropriation: after the contract is signed, scientific research funds will be allocated to the unit of the project leader as planned. At present, all kinds of scientific research project funds in China are managed by the financial department of the unit of the project leader. Fifthly, execution contract: scientific research activities shall be carried out according to the scientific research project plan, the expenditure shall be carried out according to the procedures prescribed by each unit, the signature responsibility system of the project leader shall be implemented, and the project progress and expenditure utilization report shall be submitted to the competent department on a regular basis. Sixth, evaluation and audit: after the conclusion of scientific research projects, relevant departments should evaluate the completion of projects and audit the expenditure. Process evaluation and audit results in accordance with prescribed procedures.

## **3. Experiments**

There are many researches on the management of scientific research funds in colleges and universities. With the continuous improvement of relevant national policies, the practice of scientific research management in colleges and universities will change greatly. The primary innovation of the experiment in this paper lies in the research on the status quo, problems and causes of the management of scientific research funds in colleges and universities under the background of the latest relevant national policies. Current anti-corruption environment is too strict and complicated management system for scientific research and scientific research personnel too much, violating rules of scientific research, reduced the enthusiasm of scientific research personnel engaged in scientific research work, this article point on the root of the problem from another innovation both suppress violations, corruption and can arouse the enthusiasm of research personnel of scientific research funds management system. In terms of scientific research project undertaking, K university combines the characteristics of local economy and the school's specialty, and focuses on the applied development project research, while attaching importance to basic research. In the past five years, it has undertaken more than 70 national longitudinal projects and 2,000 other vertical and horizontal projects, including 973, 863, national natural science and social science foundation. The amount of scientific research funds of the university increases year by year, and at the same time, it has achieved fruitful results, won many provincial and ministerial awards, and has a large number of patent applications and authorization.

To be specific, the realization of this paper is to conduct in-depth research on the scientific research funds of K university, understand the research utilization of scientific research funds in various subjects and related management policies and procedures, draw relevant conclusions and give guidance Suggestions.

#### **4.Discussion**

##### **4.1The Important Role of Transverse Project Funds in Scientific Research Activities in Universities.**

There are two main sources of scientific research funds in universities: the longitudinal sources are mainly from the state, ministries, provinces and cities, such as the Ministry of Science and Technology, the Ministry of Education, the national social science office, local provinces and cities; Lateral aspect mainly is the name of the university and natural persons, legal persons and other organizations technology contracts (including technology development, technical services, technical advice, technology transfer) related to the money, the other contains the international institute of science and technology cooperation projects in our country and abroad, universities, research funding and specialized agencies or individuals through the donation of the project of science and technology, etc.

Longitudinal topic mainly focus on the frontier of scientific research, public welfare, market orientation and major scientific research projects, etc., and horizontal topic is based on a high and new technology resources of colleges and universities to provide services for clients, receive income through market exchange, its research content more close to the social demand, compared with vertical subject, readily available, source is wider.

With the deepening of horizontal cooperation and the increase of the volume of horizontal project funding, its role is also increasing. The output of horizontal research projects is the ultimate goal of the expenditure of research projects. By means of industry-university-research cooperation, technology integration, technology merger and acquisition, and resource complementation, technology, talents and capital are integrated to link the interests of universities, research institutes and enterprises, so as to enhance the ability of r&d and innovation.

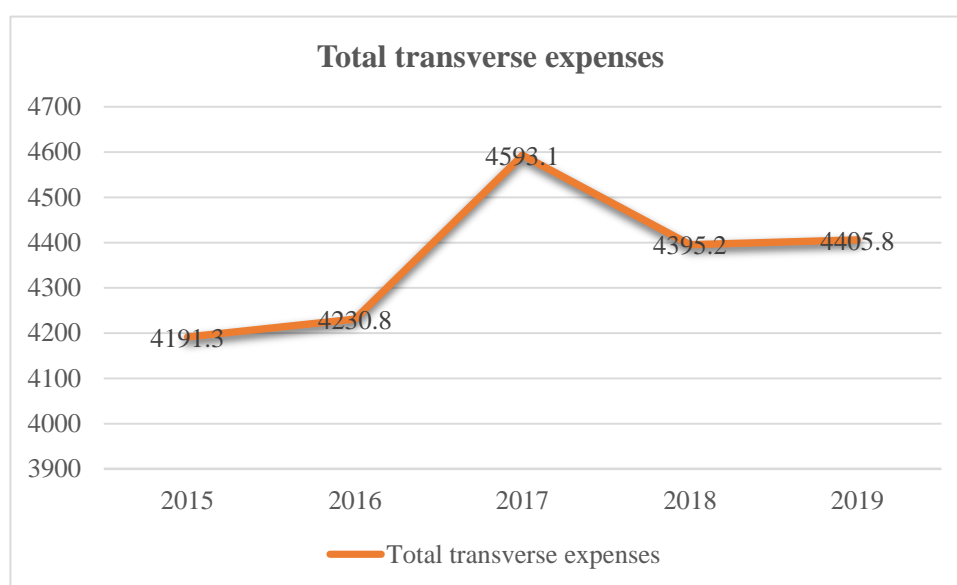
The function of horizontal project to universities is mainly reflected in the aspects of talent training and resource reserve. Taking part in the horizontal task can broaden students' vision, enhance students' hands-on ability and practical ability, and the acquisition of horizontal scientific research funds can broaden the resource channels of universities and promote the sustainable development of university scientific research.

The role of horizontal subjects in cooperation between universities, research institutes and enterprises is mainly reflected in that the technical support provided by universities through scientific and technological support and in-depth cooperation can significantly improve the r&d and innovation capabilities of research institutes and enterprises and promote the transformation or upgrading of enterprises. Through the tentacles of the partners, we can explore the market demand keenly and combine the advantages of professional disciplines to promote the expansion of social service. Taking K university as an example, the number of horizontal research projects in 2018 is shown in the following table.

**Table 1** Table of the number and expenditure of various scientific research projects of K in 2018

Project type	Number	Total expenses (ten thousand yuan)
Scientific research	171	3172.4
Technical research	25	154.37
Decision argument class	16	104.1
Design planning	91	165
Software development	46	85
Five platform open fund topics	172	110
PhD research start-up fund	15	88.5
Longitudinal subject	345	3593.1
The data in the table is from the archives management office of K university		

At the same time, by comparing the use of funds for potential horizontal projects in the past five years, the expenditure remains stable on the whole. The research funds for horizontal projects in the past five years are shown in the figure below. The data in the figure is from the archives management office of K university.



**Figure 1.** The utilization diagram of research funds of K university in recent 5 years

#### **4.2 Management System of Scientific Research Funds in Colleges and Universities.**

The use of scientific research funds shall be governed by the two-level management system of project leaders, colleges (departments) and schools. The college (department) is the basic management unit of scientific research work and scientific research funds and undertakes corresponding supervision responsibilities.

Academy to be responsible for the scientific research project contract management, scientific, reasonable and actual project manager with the bursar's office to help to prepare the budget and final accounts audit (budget or project team to actually), supervise the project director in accordance with

project issued notice (specification), contract and project budget to carry out the scientific research work, assist the school finance department to do a good job of supervision and administration of the use of scientific research funds.

The finance department is responsible for the financial management and accounting of scientific research funds, and carries out separate accounting and management according to the project. Each approved scientific research project corresponds to an independent financial account. Work with the scientific research institute to assist the project leader in scientifically, reasonably and truly compiling the budget and final accounts. To supervise and guide the use of scientific research funds in accordance with laws and regulations.

The assets management office is responsible for the bidding, procurement and management of scientific research instruments and equipment, as well as the management of assets formed by scientific research activities.

The supervision and audit office is responsible for the audit, supervision and inspection of scientific research funds.

The responsible person responsibility system shall be implemented for scientific research funds. That is to say, the project leader is the person directly responsible for the use of scientific research funds and bears legal responsibility for the use of funds. Project leaders should prepare budgets, carry out research activities and use research funds in strict accordance with relevant regulations, and voluntarily accept supervision and inspection. At the end of the project, finish the project and settle the accounts according to relevant regulations.

## **5.Conclusions**

In recent years, China has adopted many policies on the transformation of scientific and technological achievements, hoping to encourage more use of scientific research achievements and create value. The increase of the national policy incentive force should make full use of the favorable conditions for the transformation of scientific and technological achievements in applied research, which also to a certain extent improves the income of these researchers.

This paper has a certain understanding of the use of transverse research funds and the use mechanism of funds in local universities and has made corresponding Suggestions.

After the research, this paper suggests that for the problems of rigid and tedious reimbursement system and taking up a lot of time of scientific researchers, unnecessary procedures should be removed first and scientific research management should be simplified. Can be achieved through the establishment of information public platform and database. Secondly, the academic secretary system should be established according to the situation of colleges and universities so as to avoid direct connection between teaching researchers and financial personnel. In addition, it is also possible to reduce management procedures and free researchers by establishing market-based trading methods and treating horizontal and vertical subjects differently in management.

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