

# Research on the application of project management method in the informatization construction of personnel management in Colleges and Universities

Yiyuan Zhang<sup>1,2</sup>, Ye Zhang<sup>1</sup>

School of Civil Engineering, Southeast University, Nanjing, Jiangsu, 2100961;

Jiangsu Taihu Water Conservancy Project Management Office, Suzhou, Jiangsu, 215128

**Abstract:**the information construction of university personnel management is of great significance to improve the efficiency of personnel management and optimize the allocation of teachers' resources. However, there are still many problems with this construction. On the basis of analyzing the current situation of information construction, this paper analyzes and studies the cost management and quality management of personal information construction projects in Colleges and universities by using the relevant theories and methods of project management. So as to provide the reference for improving the information construction of personnel management in Colleges and universities.

**Key words:**project management;Promotion of information technology;University; Personnel management

With the promotion of the modernization of colleges and universities, the requirements of personnel management in Colleges and universities are getting higher and higher, and the previous working methods can not meet the needs of personnel management at present. At the same time, due to the limited staffing in some colleges and universities, the workload of personnel management is increasing day by day, but the staff has not been supplemented, which makes the work burden of the existing personnel management personnel greatly increased and the work efficiency difficult to improve. Faced with such a situation, many domestic colleges and universities have started to strengthen the informatization construction of personnel management, and improve the quality and efficiency of personnel management through the combination of informatization technology and manual processing. However, there are still many problems in the current informatization construction of personnel management in Colleges and universities, such as how to improve the quality of personnel informatization construction and fully meet the needs of personnel management in Colleges and universities.

## 1 Analysis on the current situation and problems of personnel management informatization construction in Colleges and Universities

### 1.1 Despise the development, maintenance and training of software

At present, in the construction of personnel management informatization, some colleges and universities just blindly purchase hardware and despise the development and use of software. When the hardware procurement and installation are completed, due to the neglect of software development, the performance of the hardware can not be brought into full play, and finally the money is spent but nothing is done. Compared with hardware, software is more direct in daily use. In the process of using computers for information processing, staff are realized through various kinds of software. If the software function development and system maintenance are not well done, it will bring great inconvenience to daily use. Sometimes it will not improve the office efficiency, but will increase the workload. Over time, the information system will gradually become a decoration and return to the traditional office mode in the past.

### 1.2 Slow update speed and low accuracy of information

The personnel information system of some colleges and universities has weak ability in data processing, and cannot realize the timely analysis and processing of information. If some information requiring high timeliness cannot be processed and updated in time, it will not only affect the efficiency of personnel work, but also cause inconvenience to the lives of teaching staff. For example, in the process of uploading statistical reports, some information systems cannot analyze and process the information quickly and accurately, resulting in inaccurate and timely personnel statistical information received by superior departments.

### 1.3 Personnel information is scattered and disordered

The amount of information involved in university personnel management is huge, and the information is relatively scattered. How to effectively integrate the information is an important task of information construction. In the application of the information platform, some colleges and universities only collect information through different parts of the platform, and do not effectively integrate and process the information, resulting in the phenomenon of repeated uploading of many identical information. When information query or further processing is required, due to the scattered and disordered information on the platform, the required information cannot be found quickly.

### 1.4 Insufficient information sharing ability and poor universality

In the process of information construction in Colleges and universities, some colleges and universities are "going their own way". The technical mode adopted by the main system of the school is different from the following subsystems, and most of the subsystems customize

different database software according to the work needs of the Department. As a result, the universality of data exchange between systems is poor, information is difficult to be shared across systems, and the systematization of information application cannot be realized.

The source of the above problems is that there are many deficiencies in the management process of personnel management informatization construction project. For personnel management informatization construction projects, colleges and universities usually do not have the ability of independent construction, and need to rely on relevant professional companies for project construction. How to effectively control and manage the project is the task of the personnel management department in Colleges and universities, and it is also related to whether the goal of informatization construction can be achieved. The following suggestions for the informatization construction of personnel management in Colleges and universities are put forward from two aspects of cost management and quality management.

## **2 Cost management of university personnel management informatization construction project**

Cost management is the foundation of project management. At present, some colleges and universities are not clear about the mode and demand of personnel management informatization construction, so they lack a complete and long-term planning for the cost management of the whole informatization construction project, which is easy to cause the situation that a large amount of funds have been invested but the predetermined goal has not been achieved. Therefore, in order to effectively use the project funds and achieve the project objectives, it is necessary to do a good job in cost management from the aspects of planning, estimation and control.

### **2.1 Cost planning**

Cost planning is an important guide for project cost management. At the early stage of information construction project decision-making, the school project leader needs to formulate a detailed project implementation plan, including a complete and feasible cost management plan. When formulating the cost management plan, it is necessary to focus on analyzing the needs of personnel management for information construction and clarify the direction of the construction project. The plan content can be continuously improved and the feasibility can be improved by consulting experts in information related fields, holding scheme demonstration meetings, internal discussions of the personnel department and other forms.

Personnel management informatization construction involves network system construction, security system construction, informatization equipment procurement, wiring installation and other aspects. When formulating the cost management plan, we should fully consider the needs of the personnel department and select according to the actual situation. For example, many colleges and universities now have a preliminary personnel management information system. For such construction projects, when making cost management plans, we should start from the aspects of equipment update, software upgrade, network expansion, etc.

### **2.2 Cost estimation**

The task of cost estimation is to preliminarily calculate the funds required for project construction. If the estimation method used in the estimation is relatively rough, it will easily lead to the deviation of the estimation results, which will affect the subsequent cost control of the project. Among the estimation methods, analogy analysis, price comparison analysis and project management software are commonly used.

Before cost estimation, the project cost can be classified and different estimation methods can be adopted according to different categories. The cost of personnel management informatization construction project is mainly divided into software and hardware and auxiliary material procurement, on-site construction and installation, operation, maintenance and commissioning. For the procurement of software, hardware and auxiliary materials, the price comparison analysis method can be used to make a list according to the equipment requirements in the project implementation plan and make an inquiry from relevant manufacturers, or make an independent inquiry through the online procurement platform. For the on-site construction, installation, operation, maintenance and commissioning, the analogy method can be used to estimate the cost with reference to the construction and commissioning costs of similar information construction projects in the past.

### **2.3 Cost control**

Cost control is the supervision and tracking of the cost in the process of project implementation. Its role is to find out in time and take measures to correct it. In the construction project of personnel management informatization in Colleges and universities, measures can be taken from the aspects of organization and technology to effectively control the project cost.

In terms of organization, the university should allocate a special project leader for the information construction project. The project leader should timely communicate and coordinate with the person in charge of the construction unit according to the cost budget and site construction conditions during the project implementation, and adjust the construction scheme appropriately, so as to achieve the goal of cost control. For example, during the installation and debugging of information software, it is found that the computer hardware configuration cannot meet the software operation requirements. At this time, updating the hardware is bound to increase the project cost. In the face of such situations, the project leader can communicate with the construction party to reduce the labor cost by shortening the construction period and other means to meet the needs of hardware update. In addition, the recruitment of personnel department staff can attract talents of computer and informatization related majors, improve the informatization business ability of the Department, and reduce the cost of human resources in project management.

In terms of technology, earned value analysis can be used to compare and analyze the cost base and actual progress, and corresponding

measures can be taken to solve the deviation. The specific method is to calculate the cost deviation according to the actual cost generated during the implementation of the project. The formula is:

$$\text{Cost Variance (CV)} = \text{Earned Value (EV)} - \text{Actual Cost (AC)}$$

If the calculation result is positive, it indicates that the cost control of the project is good; If it is negative, it indicates that the project has overspending, and measures should be taken to correct it. Before rectification, the personnel department of the university can hold a meeting to invite the construction party to attend, jointly analyze the causes of cost overruns and discuss solutions.

### 3 Quality management of university personnel management informatization construction project

The quality management of the project is the process of controlling and managing the quality of the whole project. The quality management in the informatization construction of personnel management in Colleges and universities is a project quality management activity according to the actual needs of personnel work in Colleges and universities, aiming to improve the efficiency of personnel office and the quality of personnel management. Acceptance and other stages are reflected accordingly.

#### 3.1 Quality management in project planning stage

The most important thing in the quality management of the planning stage is to ensure the planning quality of the information construction project. When formulating the project planning scheme, we should sort out according to the actual needs of the personnel management work in Colleges and universities, and prepare the demand analysis table (as shown in Table 1). At present, the personnel departments of some colleges and universities already have certain information management systems. For them, the goal of information construction projects is to update and supplement the original functions and foundation. Therefore, the personnel departments of these colleges and universities should not only consider the needs of equipment updates and insufficient functions, but also ensure the matching of the new software and hardware with the original software and hardware, such as whether the data interface is universal and whether the software can be mutually compatible. Especially in the software update, the same information standards should be adopted as the original software, so as to ensure the integration and sharing of personnel management information and other information in the school.

**Table 1 demand analysis of personnel management in Colleges and Universities**

Sub items of personnel management	Demand for information construction
Organization setting and post management	Check the intelligence of each organization and carry out post management operations.
Post appointment and employment period assessment	Realize classified filing and online assessment of employment, assessment and other data.
Open recruitment	Check the information of recruiters online, and count and process the written examination and interview results.
Internal transfer, position change, resignation and dismissal	Faculty can apply for internal transfer, post change, resignation and other operations through the online platform, and the heads of functional departments at all levels can approve the application online.
Personnel ask for leave	Faculty can ask for leave and cancel leave online.

#### 3.2 Quality management in project implementation phase

The quality management in the process of project implementation is the core content of the whole information construction project quality management, also known as process control. The most effective quality management method at this stage is to implement the standardized process of project implementation, which is the best scheme formed by constantly summarizing the experience and lessons in the past project implementation. The implementation of information construction projects in strict accordance with the standardized process can effectively avoid the possibility of encountering risks in project implementation and ensure the realization of project quality objectives.

At the same time, in the implementation of information construction projects, technical methods such as cause and effect diagram, flow chart, statistical sampling and six sigma law can also be used to compare the deviation between the completed results of project construction and the planned quality objectives, and timely take improvement measures to improve the project quality.

#### 3.3 Quality management in project acceptance stage

At the stage of project acceptance, the personnel department of colleges and universities should carry out acceptance according to the requirements of the bidding documents on project quality, the information technology agreement, and the quality objectives in the project planning, and form the project acceptance report. For the subdivisions that do not meet the acceptance requirements, it is necessary to put forward rectification opinions, and the acceptance can be given only after the rectification meets the acceptance requirements.

It shall focus on the acceptance test of the software and hardware implemented in the project to ensure that the quality of the software and hardware meets the use requirements. The personnel department of colleges and universities can organize the staff of the Department to carry out the trial of the information system after the completion of the project implementation, and check whether the software and hardware functions meet the personnel management requirements in the project planning. If problems are found during the trial or there are new requirements for system functions, you can also contact the construction unit in time to solve them.

## 4 Conclusion

In the 21st century, information has become the first factor of production. The informatization construction of personnel management in Colleges and universities is an important basic project of personnel management in Colleges and universities. This paper discusses the problems existing in the informatization construction of personnel management in Colleges and universities, and according to the project management method, puts forward the corresponding improvement measures from the whole stage of the informatization construction project, which has certain practical significance. In the future development, colleges and universities need to keep pace with the development of the times, strengthen the construction of personnel management information system, and improve the management level.

## References:

- [1] Chong Zhang Thoughts on the informatization construction of personnel management in Colleges and universities [j]Chinese Journal of multimedia and network teaching (zhongxunjian), 2021 (12): 184-186
- [2] Li Jiang Several problems to be solved urgently in the informatization of personnel management in Colleges and universities [j]China modern education equipment, 2013 (09): 77-79
- [3] Yan Lian Research on the informatization construction of university personnel management based on big data [j]Statistics and management, 2017 (12): 179-180
- [4] Wei Fang Information engineering project construction cost management and control [j]Energy saving, 2021,40 (04): 69-70
- [5] Xiaoting Chen Application of project management method in university personnel management [j]Journal of Chifeng University (Chinese philosophy and Social Sciences Edition), 2011,32 (05): 252-255
- [6] Chunli Ren Cost management in the construction of hospital informatization upgrading project [j]China informatization, 2019 (02): 73-74
- [7] Deyu Qi Discussion on cost management of information construction projects in Colleges and universities [j]China management informatization, 2018,21 (14): 12-13
- [8] Jianwu Cui Application of project management method in university personnel management [j]Southern entrepreneur, 2018 (04): 19-20
- [9] Jinghai Huang On cost management of informatization projects [j]Information and communication, 2018 (10): 129-130
- [10] Jian Feng Quality management in information construction of Higher Vocational Colleges [j]Communication and information technology, 2018 (02): 53-55
- [11] Pinghua Jiang Project management of university information system construction [j]Project management technology, 2015,13 (05): 106-109
- [12] Huafeng Cen Research on risk management strategy of informatization project construction in Higher Vocational Colleges [j]Mechanical vocational education, 2019 (02): 49-52
- [13] Lingdong Zeng,Peng Dong,Gang Liu Research on quality management of an information system engineering project [j]Project management technology, 2022,20 (05): 115-118
- [14] Rong Mu Problem analysis and Countermeasures of university information construction project management [j]Information technology and informatization, 2016 (11): 59-60
- [15] Jian Feng Quality management in information construction of Higher Vocational Colleges [j]Communication and information technology, 2018 (02): 53-55

**About the author:** Zhang Yiyuan (1993 -), male, born in Zhenjiang, Jiangsu Province, assistant engineer, postgraduate, mainly engaged in research on water conservancy project management.