Research on the Construction of University Human Resource Management Information System

Meilin Piao

Liaoning University of International Business, Dalian, 116052, Liaoning, China

Abstract: Under the background of information, it is necessary for colleges and universities to use information system in the process of human resources management, so as to improve the management process and mode of human resources in this way. Compared with the traditional means, the human resource management assisted by information system has more significant effectiveness, so it can provide a basis for the decision-making of colleges and universities. After entering the new era, it is necessary for colleges and universities to introduce new information system in the exploration of improving traditional management. By using the information system, a convenient and efficient human resource management system can be built, so as to obtain real-time human resource information. For colleges and universities, it is necessary to reconstruct the information management system of human resources on the basis of design and analysis, and use the information technology in the new era to ensure the effective improvement of human resources management.

The construction of talent team is becoming more and more important to improve the competitiveness of colleges and universities, and the corresponding manpower management should also constitute the core part of college management. Improving manpower management, in essence, means innovating the existing management system of colleges and universities and perfecting it under the guidance of information technology. This is because the information system is helpful to obtain real-time human resource information and ensure the good effect of human resource management through the way of informatization. The Times are progressing, so the traditional human resource management process in colleges and universities can no longer reflect its applicability and needs to be improved and perfected [1]. The innovative design of the information system in the human resources management of colleges and universities is conducive to the comprehensive absorption of excellent talents, but also convenient for the daily human resources management and resource allocation of colleges and universities.

1. Overview of University Human Resource Management System

Human resource management system of colleges and universities is a human-machine system that collects, transmits, stores, processes, maintains and uses human resource information of colleges and universities based on the campus network, and can share information seamlessly with other college management information systems [2]. It will be the work of teachers in wages and benefits, title appraisal and examination assessment, personnel deployment and recruitment,

personnel file management information, automation, make the staff can manage with different permissions system access according to the different information resources and the function module, and thus generate significant new information resources[3].

The university human resource management system realizes the optimization of the traditional university human resource management process and reduces the cost of personnel work. The automatic processing of routine personnel work is realized, which improves work efficiency and ensures accuracy[4-5]. Realized a large number of personnel work online processing, promoted the paperless office upgrade; It realizes information sharing among departments, reduces the workload of other departments in personnel related information collection, and avoids meaningless repetitive work[6]; The automatic data analysis of the overall personnel information is realized, which provides data support for the decision-making of school leaders and related management personnel. The realization of the teaching staff to their own authority query such as salary, title, awards and other aspects of the information self-service query, for each teaching staff better career development to provide data support[7]. Through the human resource management system, colleges and universities can reduce the cost of human resources, increase the flexibility of human resource management, so that the efficiency and quality of human resource management work in colleges and universities rise to a new level.

The human resource management system in colleges and universities has gone through a long time of development and evolution and formed its current function and structure. As early as in the 1980s, leading universities represented by Tsinghua University and Peking University developed the personnel management system in colleges and universities on the computer platform at that time. Limited by the software and hardware technology of the computer technology at that time, the system was only used in the personnel department, with simple function and limited computing and storage capacity. In the 1990s, with the construction of campus network in domestic colleges and universities, colleges and universities have also started the construction of networked personnel system, which realizes the access and operation of human resource management through browser. At present, the human resource management system of most colleges and universities is generally set up in the school network center or the computer room of relevant management departments, and realizes remote connection based on the open campus network. Each function provided by the system for users is composed of a series of basic business logic functions. This mode can better adapt to the change and upgrade of personnel management and the docking with other information systems on campus.

2. The Basic Idea of Designing Information System

When implementing the basic goal of manpower management, colleges and universities need to have information website, system database and other application software. On the basis of perfect hardware and software, a new manpower management information system can be designed. Before the development and design, the system designers should first clarify the basic design ideas: with the support of the information business process, the daily business of the hr department should be straighted out, and various human resource decisions can be supported by providing real-time human resource data. In the system design, designers also need to ensure that the information system has the characteristics of humanization and applicability from the root, and also need to increase the friendly interface of human-computer interaction for the information system. The information system should be able to be expanded flexibly, and the system interface needed for secondary development should be reserved in the design.

To be specific, colleges and universities need to divide different modules of information system when managing human resources, including database module and functional module, both of which

belong to structural module. In the two modules, the functional modules can be divided into labor management, comprehensive management, data exchange, system management and teacher management, and the corresponding database module contains text database and report database, knowledge method database and several parts of human resources data. In the management of human resources business process, the university information system is beneficial to preserve the intermediate results of information processing, so it also improves the information process.

On the basis of sharing information, data query and cross-database statistics become more convenient, which helps to save the overall cost of university manpower management and shorten the time of system development. In addition, in the design of information management system, designers also need to provide the conversion of different documents required system tools, through the establishment of a unified interface to expand business processes and system functions. At the same time, hr information system also shows stronger flexibility, can edit reports and call documents. Under the premise of centralized management, it is necessary for designers to minimize the workload required by client maintenance and ensure extensible functional modules. According to the basic idea of layer decomposition to divide clear division of departments, formulate a clear human resources management process.

3. Specific Techniques of System Design and System Analysis

Choose the appropriate technology pattern. University administrators are usually faced with complex human resource information, which will inevitably lead to confusion. In order to improve the management, the information system set up a hybrid system mode, including C/S and B/S two modes in the information system. This is because traditional C/S information management has significant security, which can guarantee fast information transfer and transaction processing, but at the same time, it lacks the possibility of system maintenance and expansion. By contrast, B/S integrates graphics, text, video and audio, which is conducive to the construction of an interactive integrated system environment, so it has excellent maintainability and portability. If the university information system can integrate the two, it can fundamentally guarantee the information security, and also set up the necessary permissions for each college to access the human resource data.

Construct manpower information database. Under normal circumstances, in order to ensure higher efficiency of human resources management, colleges and universities will build a database dedicated to human resources management. However, human resource database usually contains complex data tables and other contents, so the fields and tables in the database need to be carefully designed, according to the relational model to build accurate data table structure, through the information to create the database. The basic goal of establishing the information database for human resources management in colleges and universities is to add and delete the relevant information of human resources at any time, so as to facilitate information inquiry and information sorting. In each design stage, designers should give a clear recording process, through the way of statistics can get real-time human resource changes. Reasonable and effective information system database should be set up to facilitate all departments to share human resources related information, so as to provide information and data support for decision-making.

Optimize and modify the design. The design of information system is not fixed, but needs to be closely combined with the reality of changing human resources in colleges and universities. For each university department responsible for human resources management, it needs to be included in the information system, so as to clarify the management responsibilities of each department and its personnel. Once some changes of human resources occur, the Personnel department needs to change or add or delete information with the help of information system, so as to ensure the reliability of information human management through timely updating. In order to ensure the

effectiveness of information system design, the information system should be modified when necessary.

4. Conclusions

When making policies related to human resources, colleges and universities should not only make decisions based on existing experience and subjective judgment, but also follow the basic management rules of human resources and conform to the current situation of human resources in colleges and universities. On the basis of scientific decision-making, colleges and universities can explore more suitable human resources management process and mode, and then give more practical human resources decision-making. The use of information system can guarantee the good effect of human resources allocation in colleges and universities to a large extent, and also put an end to the blindness in human resources management. Under the premise of "people-oriented", it will establish accurate and effective comprehensive personal data for the faculty and staff, achieve efficient and high-quality information management mode for the management, and provide scientific decision-making basis for the university leadership, which has far-reaching significance for the development of the university.

References

[1] Chetty, V. R. K., & Phung, S. P. (2018). Economics behind Education: Elements of Development Outcomes through Political Involvement. Eurasian Journal of Analytical Chemistry, 13, 146-157.

[2] Raju, V. (2018). Theory of Lim Law: Leadership Style. Eurasian Journal of Analytical Chemistry, 13, 125-136.

[3] Raju, V. (2021). Implementing Flexible Systems in Doctoral Viva Defense through Virtual Mechanism. Global Journal of Flexible Systems Management, 22, 127-139. https://doi.org/10.1007/s40171-021-00264-y

[4] Raju, V., Juan, W., Shrestha, S., Kalathinathan, A., & Ramachandran, K. (2021). Role of Big Data Analytics in Belt and Road Initiative (BRI): Multivariate Analysis with Gaussian Distribution of Data. In A. J. Tallón-Ballesteros (Ed.), Modern Management Based on Big Data II and Machine Learning and Intelligent Systems III (pp. 169-177). IOS. Press. https://doi.org/10.3233/FAIA210245

[5] Wei Dong, Zhang Yongjun, Liu Xinyi et al. Robust line segment matching across views via ranking the line-point graph[J]. ISPRS Journal of Photogrammetry and Remote Sensing, 2021, 171.

[6] Zou Quanyi, Lu Lu, Yang Zhanyu et al. Joint feature representation learning and progressive distribution matching for cross-project defect prediction[J]. Information and Software Technology, 2021(prepublish).

[7] Andrea Capiluppi, Davide Di Ruscio, Juri Di Rocco et al. Detecting Java software similarities by using different clustering techniques[J]. Information and Software Technology, 2020, 122(prepublish).