

# Application System Design of Budget Performance Management Based on Intelligent Data Entry and Mining Algorithm in Colleges

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**Abstract:** Through intelligent data entry and association rule mining technology in data mining, historical data in educational administration teaching is analyzed and rules are extracted, and potential rules in historical data that are instructive for future work are obtained. The coordination of responsibility is the goal orientation of the design of the performance evaluation model for college teachers. Using the AHP method, a fuzzy evaluation index system is designed, and a performance evaluation model for college teachers is constructed from this. The system dynamics method is used to carry out simulation. Combined with the user's main body evaluation, an evaluation report is formed, and the project performance completion status is obtained.

**Keywords:** Application System Design, Budget Performance Management, Intelligent Data Entry, Colleges and Universities

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## 1. INTRODUCTION

The bus passenger flow survey provides basic data for bus planning, dispatching operation and route optimization, but the inhomogeneous distribution of bus passenger flow in space and time makes the bus passenger flow survey a costly and tedious task [1]. The reason why this winter appears, the main reason is that college administrators lack a correct understanding of budget performance management [2], fail to recognize the importance of budget performance management, simply think that budget management is only the work of the financial department, and have not done a good job of budget performance management [3]. And there is no related management content implementation in colleges and universities, so the related research on college budget performance management is the current focus of researchers in related fields. In the budget performance management model [4].

Data mining is a new technology applied in the era of big data. In the era of big data, the level of informatization in the work [5] of public institutions has been continuously improved, resulting in a large amount of data. On the one hand, these data can accurately record and reproduce the work of the unit, that is, the descriptive schema of the data. Data mining is a multidisciplinary field that integrates database technology [6], machine learning [7], information retrieval, artificial intelligence and other latest technologies. It is widely used in various fields, such as banks and insurance companies. Classification models use this to predict fraudulent behavior. The nature of public goods and the need for equity in education. In modern times [8], with the development of privatization of colleges and universities, the performance of financial education investment has become the main object of concern for related parties [9], and academic circles have also carried out research, which is mainly reflected in the following two aspects: It is believed that colleges and universities benefit many subjects, therefore, it is necessary to In accordance with market principles, market entities should take the initiative to bear these costs [10].

Taking Canadian university education as an example, further research shows that there is a phenomenon of unclear responsibilities of various market entities in university

education, and it is difficult to achieve optimal benefit output. On the basis of analyzing the characteristics [12] and functions of the existing university management information systems, this paper absorbs the management ideas of other university management information systems at present. Rules Mining for College Management Information Systems [13]. .NET is a widely used XML Web server platform on which most data software systems or service businesses can be built. As long as they are connected to the Internet, users can freely access published services [14]. The goal of the .NET platform is to allow users to access the information, files, and programs they need regardless of location, time, and device [15].

As the name suggests, teacher performance mainly reflects the effectiveness and contribution of teachers' labor. Based on the aforementioned analysis of teachers' [16] occupation and teachers' labor characteristics, the composition of their performance has its own characteristics. Generally speaking, teacher performance includes both teacher work results. The research on the performance evaluation [17] of educational informatization is relatively late. At present, the current research status of the construction and application of informatization projects in colleges and universities in my country can be seen [18]. The current domestic scholars' research on the performance of informatization projects in colleges and universities still mainly focuses on the performance evaluation of informatization projects in foreign universities [19]. On the relevant experience and the discussion on the completion of the performance indicators of university informatization, the vehicle scheduling operation information of the public transportation system (see Table 2) can be used to assist in inferring the passenger's boarding station [20].

The literature proposes a method of using fuzzy mathematics to connect the passenger's boarding time with the boarding site, and then infer the boarding site. The budget performance management of colleges [21] and universities in our country also lacks the control of execution, because there are many revenue and expenditure items in colleges and universities, and many revenue and expenditure items are temporarily decided [22], which makes the budget plan difficult to implement, resulting in insufficient execution of budget performance management. It is required that multiple links

such as budget performance preparation, implementation, and supervision should [23] pay more attention to the reasonable control of the output and results of budget funds. When colleges and universities carry out budget performance management, they are quite different from other fields [24].

## 2. THE PROPOSED METHODOLOGY

### 2.1 The Intelligent Data Entry and Mining Algorithms

As a method of mining useful content in big data in a timely manner, data mining technology can find useful information from massive information, give full play to the functions of data description and prediction, and improve the performance of data mining. Management level of performance compensation in business units.

The pre-selection of effective candidate support vectors is mainly based on the fact that the support vectors are usually located at the class boundary. Compared with other samples in this class, they are farther from the center of this class and closer to the center of heterogeneity. The samples whose center distance is less than the distance between the two types of samples are used as effective candidate support vectors. Enhancement of enterprise object reusability; objects that encapsulate enterprise logic program code to perform specific functions are enterprise objects. The development of component technology makes more and more reusable component patterns appear in software development. As stated in Definition 2, there are two situations in the time interval between two consecutive card swipes: card swipe interval and running interval. The purpose of the classification step is to distinguish these two cases. In addition to the time spent by passengers getting on the bus and swiping the card, the running interval also includes the travel time between stations, so it is usually larger than the boarding interval.

### 2.2 The Budget Performance Management

Since solving the standard SVM problem is equivalent to solving the minimum bounding sphere problem, BVM is an approximate algorithm for solving the SVM optimization model based on the minimum bounding sphere. First, the support vector machine is equivalent to the minimum bounding sphere problem, and then the minimum bounding sphere is calculated. The problem is converted to a 1 approximate bounding sphere problem to solve. In this system, the function of judging user authority and system entry is realized by the user login module. According to the identity of the user when logging in, the user has different levels of authority. If the user name and password do not exist or do not match several times in a row, the system closes the login interface.

The whole process management characteristics of internal control management and budget performance management in colleges and universities are also the same. Budget performance management the work is to evaluate the various management transitions of colleges and universities, and runs through every level of college management.

Staff should improve the budget performance management mechanism from the perspective of internal control management. First, they should set reasonable budget performance targets. Budget performance targets are an important basis for colleges and universities to carry out performance evaluation, so it is very important to set reasonable performance targets. Before carrying out the budget performance management of colleges and universities, it is necessary to complete the budget performance plan first,

and its essence is to complete the setting of college budget performance indicators and the setting of corresponding tasks. In the university budget performance management system in this article, the maintenance of budget performance tasks is mainly used to realize the creation of various tasks. The premise of any informatization project is budget investment, and the result of the investment depends on the income. In enterprise informatization projects the concept of income is the choice of capital investment. Capital investment is based on a certain considerable prospect. Capital invests in information systems as commodities. It must ensure that the use of the system is closely related to the business operations. The system has a positive effect on the management and production. It can restrain the management of the public sector more effectively and allocate the resources of the sector more efficiently.

### 2.3 The Application System Design of Budget Performance Management in Colleges and Universities

The specific process is as follows: First, the division of labor between each department should be clear, and each department should perform its own duties. Then, according to the actual situation and responsibilities, the implementation projects of this year should be defined. In terms of database management system, this system uses a database with high security. And equipped with a database server for real-time data backup. In terms of user identity authentication, in addition to system administrators, teachers, and students, other servers and hosts that access the system also need to be authenticated. Not only the user name needs to be verified. Under the guidance and arrangement, many colleges and universities have successively carried out the exploration and promotion of teacher performance evaluation.

Under the new educational policy situation, since 2000, more and more colleges have formulated regulations known as the "University Constitution". The board of directors, council, alumni association, education foundation, etc. have been established, and corresponding procedures have been formulated, which enriches the connotation and significance of the principal responsibility system under the leadership of the party committee in the new era, so as to speed up the development of school education. Performance evaluation process design These four "views" are directly converted into the first-level indicators required for project evaluation, and the second-level indicators derived from the first-level indicators are set up, and relevant methods are used to set theoretical weights and assign theoretical values to the second-level performance indicators. , using subjective and objective methods and tools to collect the values corresponding to the secondary performance indicators in batches during the use of the informatization project.

By estimating  $x$ , the travel time of a large number of vehicles on the road can be obtained, and then the parameters composed of the mean value and variance of the new travel time can be calculated. It is a plurality of source data with different characteristics. According to the above operations, all the acquired data features are formed into a set, and a new data connection is constructed in the system software platform. In the connection process, it is necessary to ensure that the data is cleaned and fused.

### 3. CONCLUSIONS

This system integrates the research results of modern resource management and development, data mining theory, higher education research, information management system and other multi-disciplinary fields to ensure the advanced nature of the system; at the same time, the modularization of system functions requires the improvement of the relevant budget performance management system, to make a reasonable and effective evaluation of budget management. Therefore, colleges and universities should strengthen the application of internal control management in budget performance management to improve the vitality of the unit. However, the application of data mining technology in performance management assessment is not widely used.

### 4. REFERENCES

- [1] Xu Duo, Zhao Zemin. Construction and Application of University Budget Performance Management System Based on Excel VBA—Taking H University as an Example [J]. China Management Informatization, 2022, 25(1):7.
- [2] Zhang Chenzhi. Design and Research of University Scientific Research Management System Based on Data Mining Technology in Big Data Environment [J]. Network Security Technology and Application, 2018(5):2.
- [3] Qiu Xiangying. The design of university budget performance management system for the integration of industry and finance [J]. China New Technology and New Products, 2021(12):3.
- [4] Jiang Ruiyuan. Data mining and its application in supplier evaluation [D]. Hunan University, 2019.
- [5] Hong Chuang. Research on the Adoption of User Knowledge Contribution in Open Innovation Community [D]. Jilin University, 2019.
- [6] Guo Lihong. Research on the application of big data and artificial intelligence in financial budget management in colleges and universities [J]. Small and Medium Enterprises Management and Technology, 2019(26):2.
- [7] Qi Ganlu, Zu Quanmin, Ye Fei. How to apply whole-process performance budget management in colleges and universities [J]. Chinese and Foreign Entrepreneurs, 2018(7):1.
- [8] Gao Wenyong. Application of data mining in performance salary management of public institutions [J]. 2021.
- [9] Li Na. Design and Implementation of Comprehensive Budget Management System in Colleges and Universities [J]. Accounting Learning, 2018(17):2.
- [10] Qin Yan. Analysis of the design and implementation of financial budget management system in colleges and universities [J]. China Market, 2018(16):3.
- [11] Xia Dan. Management Mechanism of College Budget Performance Target Based on SMART Principle—Taking F College as an Example [J]. Business Accounting, 2021(16):4.
- [12] Wang Fei. The application of internal control management in college budget performance work [J]. Finance and Economics, 2019(32):2.
- [13] Wang Haimin. Design and implementation of intelligent push service system for university library based on data mining [J]. China Information Technology Education, 2020(19):3.
- [14] Zhang Yan. The application of performance evaluation feedback and application management in college budgets [J]. Business Intelligence, 2018, 000(022):68.
- [15] Shao Shenghua, Hu Zhenwei. Analysis of College Budget Performance Management Based on Strategic Map—Taking A College as an Example [J]. 2021(2017-6):80-83.
- [16] Zhang Lei. A New Model of Comprehensive Budget Performance Management in Colleges and Universities: The Value and Application of Big Data [J]. Journal of North China University of Science and Technology: Social Science Edition, 2020, 20(5):7.
- [17] Wang Xuedong. A preliminary study on budget performance management in colleges and universities based on "effect orientation" [J]. Contemporary Accounting, 2020(9):2.
- [18] Xu Junwei, Liu Changsheng. Design of evaluation system based on artificial intelligence and deep data analysis technology [J]. Electronic Design Engineering, 2021.
- [19] Deng Renfeng. Research on the application of big data technology in the evaluation of scientific research ability of higher vocational teachers [J]. Wireless Internet Technology, 2021.
- [20] Wang Wei. Application of artificial intelligence and data mining in ergonomic PHM [J]. Journal of North China Institute of Science and Technology, 2019, 16(5):10.
- [21] Xue Yanan. Application of clustering algorithm based on data mining [J]. Industrial Science and Technology Innovation, 2020(10):2.
- [22] Zhu Mengran, Yan Xianglin, Yuan Qinjian. Structural Hole Theory and Its Application and Prospect in Social Network Research [J]. Journal of Intelligence, 2018, 37(7):9.
- [23] Cheng Ping, Yang Jiwan, Zhu Puyi. Research on Performance Evaluation of Planning and Design Projects Based on DEA-CART Algorithm—Taking the Planning and Design Projects of Research Institute A as an Example [J]. Finance and Accounting Communications, 2021(22) :5.
- [24] Li Di. Research on key technologies of hospital archives information management [J]. Microcomputer Application, 2021.