

Research on Comprehensive Budget Performance Management in Universities under the Background of Smart Finance

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Abstract: The comprehensive implementation of budget performance management is an inherent requirement for promoting the modernization of the national governance system and governance capacity. It is an important measure to optimize the allocation of educational resources, improve the quality of educational public services, promote the acceleration of education modernization, and improve the management level of universities. At present, there are still significant limitations in the application of smart finance in universities, such as low fund settlement efficiency, insufficient integration of financial systems, insufficient financial data analysis and decision support, and insufficient internal financial control, which seriously affect the breadth and depth of smart finance application in universities. Based on this situation, universities need to use intelligent information technology to provide technical support and guarantee for the precise implementation of budget performance management systems. The school should restructure the intelligent financial reimbursement model, promote online reimbursement, strengthen the interconnection between financial systems, and improve the intelligent data analysis and decision-making platform. This can effectively improve the efficiency of financial governance and promote the intelligent and high-quality development of university finance.

1. Introduction

In recent years, the implementation of government accounting standards, the implementation of scientific research "streamline administration, delegate power, strengthen regulation and improve services" reform, the implementation of internal control system, the full implementation of budget performance management and electronic file management have put forward higher requirements for financial management in colleges and universities. Some colleges and universities have carried out related work in budget performance management and accumulated some useful experience, but there is still a gap compared with the requirements of full implementation of budget performance management [1]. Budget reporting and implementation are relatively out of touch, and the centralized business management department can't grasp the implementation rate of funds, which is prone to inefficient, ineffective and idle precipitation, loss and waste, lack of performance

indicators and standard system construction that are compatible with budget expenditure standards and education industry standards, and lack of a mechanism for linking performance evaluation results with budget arrangements [2]. In order to effectively improve the efficiency of financial governance, it is necessary to make a more reasonable and long-term plan, and transform the traditional financial service model into smart financial service by optimizing and recreating the accounting process [3]. At the same time, with the rapid development of digital technologies such as big data, cloud computing, mobile Internet and blockchain, new transformation requirements have been put forward for accounting information processing, accounting development and accounting technology reform. At present, there are still some limitations in the application of smart finance in colleges and universities, such as low fund settlement efficiency, insufficient integration of industry and finance systems, insufficient financial data analysis and decision support, and insufficient financial internal control, which seriously affect the breadth and depth of smart finance application in colleges and universities [4-5]. Based on this situation, colleges and universities need intelligent information technology to provide technical support and guarantee for the accurate implementation of the budget performance management system. Colleges and universities must push the basic functions of accounting to a new height, and realize the integrated development of business and finance under the premise and requirements of "convenient reimbursement", "dynamic supervision of funds", "programmed internal control" and "scientific financial decision" [6]. Universities should restructure the financial intelligent reimbursement model, implement online reimbursement, strengthen the interconnection of financial systems, improve the intelligent data analysis and decision-making platform, effectively improve financial governance efficiency, and promote financial intelligence and high-quality development [7].

2. Research on Comprehensive Budget Performance Management in Universities

2.1. Design principles of comprehensive budget performance management system

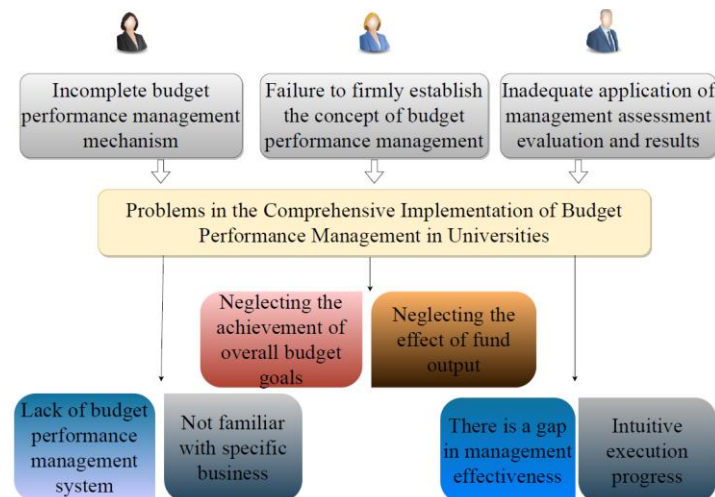


Figure 1: Problems in the Comprehensive Implementation of Budget Performance Management in Universities

The management of universities does not attach enough importance to budget performance management and lacks top-level design; The understanding of performance objectives, performance monitoring and performance evaluation is not systematic and in-depth enough. Many colleges and universities lack the awareness of performance oriented strategic Management by objectives, the basic work of performance management is relatively weak, and the awareness of tracking and

efficiency of relevant managers is weak [8]. This article analyzes the problems that exist in the comprehensive implementation of budget performance management in universities. The problems that arise from the comprehensive implementation of budget performance management in universities can be analyzed from three aspects, as shown in Figure 1.

During the budget declaration process, as the supervisory department, we have strengthened communication among various departments within the unit, combining budget preparation with asset allocation information. At the same time, we have also strengthened the approval authority and responsibility of the centralized management department in the budget preparation process. Through the information system, historical annual data is provided as data support for budget preparation, and online approval process is provided to realize the basis of preparation and traces of approval [9]. From the perspective of "management accounting", this paper tries to integrate the management ideas and tools of management accounting in strategic management, budget management, cost management and performance management with the budget performance management of colleges and universities, so as to provide new ideas for promoting the implementation of comprehensive budget performance management in colleges and universities, optimizing the rational allocation of educational resources and improving the efficiency of the use of funds in colleges and universities. We carry out internal audit evaluation, consolidate the responsibility of rectification, increase the application of audit results, and play a good role in "revealing problems, standardizing management, promoting reform, and improving efficiency" in educational financial governance.

For projects with serious problems, it is necessary to suspend or stop the budget allocation and urge timely rectification and implementation. In order to fully implement the budget performance management, all departments need to declare the performance targets of income and expenditure, and earnestly achieve "to be effective in spending money, to arrange more effectively, to reduce inefficiency and reduce pressure, and to be accountable for inefficiency" [10]. The establishment will be based on the budget performance implementation and evaluation results as an important basis for future annual funding arrangements, giving priority to projects with good performance and urging improvements to projects with average performance. Realizing the integration of budget and performance management is the guiding ideology of comprehensive budget performance management, which is in the same strain as the concept of comprehensive budget management in management accounting. Therefore, it is the policy requirement of national budget performance management and the proper meaning of management accounting to take comprehensive budget management as the main line of budget performance management in colleges and universities.

2.2. Overall Design of Comprehensive Budget Performance Management System

In the context of budget declaration, we establish project library management to achieve special declaration, warehousing management, and performance evaluation of financial special projects. We also establish a performance indicator library to achieve self-evaluation and monitoring of performance. The system can achieve full budget lifecycle management with a multi-dimensional data model, a complete budget system, and comprehensive process management, focusing on budget declaration, multi-level review, budget control, process supervision, and performance evaluation, meeting the requirements of refined budget management. Universities develop medium and long-term development plans and annual work plans around strategic goals, setting corresponding performance goals, indicators, and evaluation standards for each level, and conducting a series of activities such as performance operation monitoring, performance evaluation, and application of evaluation results based on performance goals. Guided by strategic goals, universities need to analyze, extract, and integrate various resources that can achieve goals, and

make budget arrangements that correspond to achieving goals at all levels. Comprehensive budget performance management needs to cover all funds of the school, run through the entire process of budget preparation, execution, and supervision, achieve the integration of performance and budget management, and establish a closed-loop system for budget performance management before, during, and after the event. The comprehensive budget performance management architecture is shown in Figure 2.

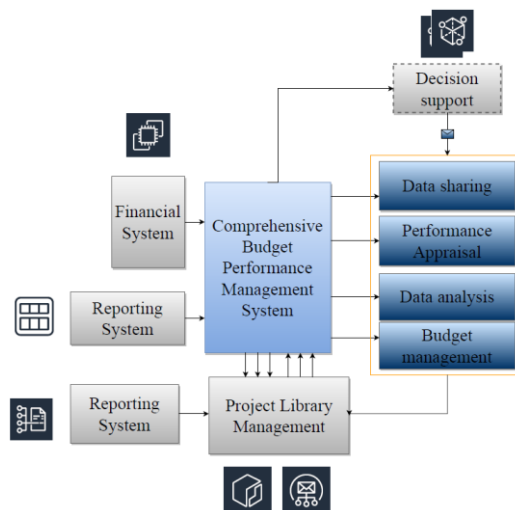


Figure 2: Comprehensive Budget Performance Management Architecture

In the field of budget management, the core idea of management accounting is comprehensive budget management. Comprehensive budget management refers to the rational planning and calculation of business activities, investment activities, and fundraising activities for a certain period of time in order to achieve strategic goals, using the budget as a means, and monitoring the execution process, evaluating and providing feedback on the execution results based on the budget.

3. The Guarantee Mechanism of Budget Performance Management in Universities

3.1. Strengthen the construction of institutional systems

To enhance budget performance management in universities, a leadership group will be established under the leadership of the Party committee. Additionally, a position of chief accountant in charge of budget performance work will be established. The president and chief accountant serve as the leader and deputy leader of the leadership group, respectively. The leadership group has an office, which adopts matrix management method and is not affiliated with the finance department. The office is composed of corresponding functional departments and colleges such as regulations, finance, personnel, state-owned assets, academic affairs, etc., guided by performance goals, Implement budget performance management throughout the entire process. Budgeting requires setting performance goals; The performance evaluation results serve as an important basis for budget arrangement, and if the evaluation is not approved, the budget cannot be arranged; The approved performance goals must serve as the basis for budget execution, performance evaluation, and accountability, and cannot be arbitrarily changed. The school evaluates the performance of each unit based on the performance goals set by each unit, using performance evaluation indicators, standards, and methods to evaluate the economy, efficiency, and effectiveness of budget expenditures. The evaluation results are included in the department's annual assessment index system, thereby strengthening management efforts and achieving dynamic allocation between budget projects and the school's overall funds. The leadership group should also develop

comprehensive and operational budget performance management methods and procedures based on the policy documents of the superior department, combined with the school's development goals and plans, to ensure that budget performance management work has laws and regulations to follow, clear division of responsibilities among responsible parties, and clear responsibilities, so as to implement budget performance management work effectively.

3.2. Strengthen information construction

In recent years, the development of informatization has provided strong technical support for budget performance management in colleges and universities, and colleges and universities can rely on the informatization platform. Multi-dimensional reflection of budget management results through charts and other means, such as: budget implementation progress, comparative analysis of budget planning and implementation, comparative analysis of budget allocation and implementation, budget implementation rate of various departments, analysis of budget implementation over the years, and early warning tips of abnormal budget implementation. To promote budget performance management comprehensively, it is essential to strengthen the publicity of related content. The university will communicate the relevant policies of budget performance management to every faculty member, aiming to enhance their understanding and ensure the full implementation of budget performance management. This effort will create a favorable atmosphere for comprehensive budget performance management and contribute to the full development of performance management. The budget performance adjustment, performance evaluation method, implementation operation process, division of labor and responsibilities of personnel are elaborated in detail, and the performance management system and process that meets the development needs of colleges and universities are formulated from various aspects. Guided by performance objectives, with budget management as the main line, we will break the "information island" and integrate, optimize and upgrade business systems such as finance, educational administration, students, assets and personnel.

3.3. Strengthen the construction of talent team

Universities should adopt various forms to strengthen the construction of talent teams for budget performance management. To illustrate, the university can take initiatives such as organizing performance management training and explanations for major leaders and key personnel in various departments. Furthermore, it should focus on strengthening the understanding and learning of business by university financial personnel. This can be achieved through various means, including research, lectures, training, and other methods aimed at theoretical and practical learning. There are two key points in implementing comprehensive budget performance management in universities: management accounting and integration of industry and finance. Management accounting provides management ideas and tools for comprehensive budget performance management in universities, and the integration of industry and finance provides a foothold for the implementation of comprehensive budget performance management in universities. Taking comprehensive budget performance management as an important lever to improve management efficiency and stimulate endogenous motivation, the university should organize the establishment of a comprehensive budget performance management working group with relevant business departments as members. Additionally, an office should be established within the Finance Department to be responsible for budget performance management work. By means of management accounting, using artificial intelligence and Big data and other technical means to analyze and judge data information, and at the same time going deep into university business activities, cost control can be integrated into project management, helping universities optimize resource allocation and achieve performance

goals. Improving professional knowledge and business capabilities can also enhance the understanding of budget performance management and the understanding of the comprehensive budget performance management process among relevant personnel, grasp their position and responsibilities in the process, and help team members improve their professional knowledge and business capabilities to better complete their work.

4. Conclusions

On the basis of combing and analyzing the new requirements of budget performance in an all-round way, this paper analyzes the "blocking points" and "pain points" existing in current financial management. Guided by improving the financial service level and governance efficiency, this paper makes a concrete analysis from four dimensions, and puts forward corresponding measures to build smart finance in colleges and universities. Due to the diversity of sources of funds, the complexity of the use of funds, and the difficulty in quantifying the output results, the performance indicators need to be continuously improved. Colleges and universities should seize the opportunity of information transformation and digital transformation to promote the transformation and upgrading of traditional financial management to smart finance, improve the fund settlement mode, set up emergency funds, strengthen financial internal control, establish and improve long-term financial management mechanism, and improve financial service level and governance efficiency. At present, the linkage between the budget fund arrangement and the budget implementation progress has been realized, and the linkage mechanism between the budget fund arrangement and the achievement degree of performance goals needs to be further explored, and the scientific nature of the budget fund arrangement needs to be continuously improved. Whether the pre-business planning is economical, whether the cost can be controlled in the process of business promotion, whether the business can be closely followed, and whether the business can be completed with high quality and efficiency in the end, etc., only when the budget performance management covers all the business activities of colleges and universities, and only when the specific business activities are deeply integrated with the budget performance management, can the business itself truly create value.

References

- [1] Min W, Peng Minjiao. *Analysis of Opportunities and Challenges Faced by Comprehensive Budget Performance Management in the Age of Big Data* [J]. *Economic Review Journal*, 2021, 25(16):12-18.
- [2] Zecai W. *Budget Performance Management: Towards the Comprehensive Performance Management in the New Era* [J]. *Chinese Public Administration*, 2021, 39(7):49-56.
- [3] Yongyun C. *Research on Comprehensive Budget Management of Colleges and Universities* [J]. *Accounting and Finance*, 2020, 41(22):19-43.
- [4] Lijuan J, Department F. *Application of Budget Management in Financial Management of Colleges and Universities* [J]. *Journal of Qilu Normal University*, 2021, 28(11):19-27.
- [5] Le, Oanh Thi Tu, Nguyen N T. *Management Efficiency of Budgeting: Evidence from Public Universities in Vietnam* [J]. *International Journal of Accounting & Finance Review*, 2020, 5(1):105-115.
- [6] Zhihui Y, Yeling Xu, et al. *Reflections on the Financial Budget Management of Colleges and Universities under the Background of "Double Tops" Construction* [J]. *Journal of Anhui University of Technology (Social Sciences)*, 2022, 33(16):25-38.
- [7] Jingjing S. *The Construction of Comprehensive Budget Management Information System in Colleges and Universities in the New Era* [J]. *Journal of Qujing Normal University*, 2021, 19(4):9-18.
- [8] Bingxin W, Finance D O. *Research on Problems in Colleges' and Universities' Budget Management* [J]. *Journal of Jilin Institute of Chemical Technology*, 2022, 36(12):15-20.
- [9] Hongyi N. *The Practice of Performance Budget Management and the Design of the Index System in Local Colleges and Universities* [J]. *The Science Education Article Collects*, 2022, 16(5):41-49.
- [10] Qingming N, Rongjing D, Finance D O. *Design and Practice of Budget Management System in Colleges and Universities under the Background of Financial Informatization* [J]. *Journal of Wuxi Institute of Technology*, 2021, 13(5):17-23.