

CONSTRUCTION OF A BUDGET PERFORMANCE EVALUATION INDEX SYSTEM FOR APPLIED UNDERGRADUATE COLLEGES

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Abstract: This study aims to construct a budget performance evaluation index system tailored for applied undergraduate colleges to optimize financial management and enhance resource allocation efficiency. By reviewing the theories and practices of budget performance management in domestic and international universities, and considering the characteristics of applied undergraduate colleges, the study employs the Balanced Scorecard and Logical Framework Approach to propose an evaluation system covering four dimensions: financial performance, teaching quality, student development, and social services. The results indicate that this system can effectively assess the performance of university budget usage and provide scientific and reasonable suggestions for improvement. The study concludes that applied undergraduate colleges should dynamically adjust their budget performance evaluation systems based on their educational goals and resource characteristics to improve the quality of education and the efficiency of fund utilization.

Keywords: Applied undergraduate colleges; Budget performance evaluation; Index system; Balanced Scorecard; Logical Framework Approach; Financial management

1 INTRODUCTION

As an essential part of China's higher education system, applied undergraduate colleges have played an active role in promoting local economic and social development and enhancing regional industrial technological innovation in recent years. These colleges primarily aim to cultivate applied talents and serve the local economy. Compared to traditional research universities, their educational philosophy places more emphasis on developing practical skills and professional competence. However, with the deepening reform of China's higher education system, budget management in applied undergraduate colleges faces increasingly complex challenges [1]. On the one hand, government investment in higher education has gradually increased, expanding the scale of university operations and fiscal expenditure. On the other hand, inefficiencies in fund utilization and unreasonable resource allocation in budget management have been exposed, limiting further improvements in the effectiveness of college operations.

Currently, most universities adopt a traditional financial management model for budgeting, which focuses on pre-budget preparation and post-financial report analysis, lacking comprehensive tracking and assessment of fund utilization throughout the process [2]. Although some universities have explored budget performance management mechanisms, attempting to enhance the rationality and efficiency of fund utilization through performance assessments, practical challenges remain. These include inconsistent evaluation standards, incomplete index systems, and a lack of quantitative evidence in the assessment results [3]. These shortcomings directly affect the ability of university administrators to allocate and utilize funds effectively, preventing budget performance evaluation from fully playing its vital role in improving the quality of education.

The construction of a budget performance evaluation system is of significant practical importance in university management. First, budget performance evaluation provides a scientific assessment of the effectiveness of fund utilization in universities, identifying issues in the budget execution process and optimizing resource allocation. For example, scholars have studied the differences in the impact of various budget investments on teaching and research outcomes, providing empirical support for rational budget evaluation in universities [4]. Second, performance evaluations encourage universities to focus more on fund utilization efficiency, avoiding wasteful expenditure and enhancing the return on investment [5]. Research has shown that budget investments can enhance the practical application of medical teaching, and such teaching outcomes can serve as core indicators in budget performance evaluation for universities [6]. For applied undergraduate colleges, their financial needs are closely related to their educational goals. Therefore, establishing a budget performance evaluation system tailored to their characteristics can effectively enhance overall management and promote the rational use of resources.

This study aims to construct a budget performance evaluation index system that fits the characteristics of applied undergraduate colleges. It comprehensively considers various factors such as the educational goals, teaching needs, and social services of these colleges, designing a scientific and reasonable set of evaluation standards and index systems. By constructing and implementing this system, it provides theoretical support and practical guidance for university budget management, helping colleges achieve rational resource allocation and improve the efficiency of fund utilization, thereby enhancing the overall quality of education. This study not only holds significant practical relevance for budget management in applied undergraduate colleges but also offers a reference for budget performance management in other types of universities.

2 LITERATURE REVIEW

As an essential component of modern budget management, budget performance evaluation has been extensively studied and discussed, both in theory and practice. A budget performance evaluation system refers to a set of quantitative indicators and evaluation standards used to assess the effectiveness of budget fund utilization, optimizing resource allocation and enhancing efficiency [7]. While budget performance evaluation has been widely applied in the fields of public finance and corporate management, research and practice in the field of higher education, especially in applied undergraduate colleges, remain in the preliminary stages. Therefore, systematically reviewing relevant literature holds significant theoretical and practical value for constructing a budget performance evaluation index system for universities.

First, regarding the concept and theoretical foundation of budget performance evaluation, existing research is mostly based on performance management theories in the public sector, emphasizing the clarity of performance objectives, scientific evaluation processes, and the operational applicability of results [8]. Studies in public finance highlight that budget performance evaluation should not only focus on ex-post assessments of fund utilization but should also be integrated throughout the entire process of budget preparation, execution, and supervision [9]. As university management becomes increasingly complex, budget performance evaluation is regarded as an essential tool for improving financial management. It helps universities prioritize budget expenditures, ensuring the efficient use of funds [10].

Second, research on university budget performance evaluation has been conducted by scholars domestically and abroad. Budget performance evaluation in foreign universities is typically linked to university rankings and government funding, emphasizing the correlation between fund utilization and educational outcomes [11]. In contrast, domestic studies have paid more attention to compliance and efficiency in budget execution. Although some applied undergraduate colleges have attempted to implement performance evaluations, these evaluations often reference standards from comprehensive universities and fail to fully reflect the unique educational characteristics and practical needs of applied colleges. As a result, the evaluation results lack specificity and effectiveness [12]. Therefore, it is necessary to design a tailored budget performance evaluation system based on the particularities of applied colleges.

Additionally, the construction of performance evaluation index systems is a focal point of current research. The scientific and reasonable nature of an index system directly impacts the validity of the evaluation results. Generally, budget performance evaluation indicators can be divided into financial and non-financial indicators. Financial indicators primarily include budget allocation ratios and fund utilization efficiency, while non-financial indicators cover areas such as teaching quality, student development, and social services. Different scholars have proposed various models and methods for constructing index systems, such as the Balanced Scorecard model and the Logical Framework Approach. Each method has its advantages and limitations. For applied undergraduate colleges, the challenge lies in selecting appropriate evaluation indicators and constructing a budget performance evaluation system that aligns with their educational model and financial needs.

A review of the existing literature shows that research on budget performance evaluation in applied undergraduate colleges is still in an exploratory stage, with relatively limited research findings and practical experience. Constructing a scientifically sound and operationally feasible budget performance evaluation system requires drawing on established theories and models, while also innovating based on the specific circumstances of applied colleges. Therefore, this paper aims to explore the construction path of a budget performance evaluation index system tailored to the development needs of applied undergraduate colleges, considering their unique characteristics.

3 THEORETICAL ANALYSIS

The construction of a budget performance evaluation system for applied undergraduate colleges must fully account for their unique educational philosophy, financial needs, and management objectives. Compared to traditional research universities, applied undergraduate colleges focus more on cultivating practical skills and professional competencies. Fund utilization is closely related to university-industry collaborations, practical teaching, and the construction of experimental training bases [13]. Furthermore, research in medical-related disciplines shows that investments in practical teaching and experimental resources significantly improve students' learning outcomes, underscoring the importance of budgeting for teaching experiments [14]. Therefore, in the design of evaluation indicators and the selection of models, the budget performance evaluation system should reflect the distinct educational model of applied undergraduate colleges.

3.1 Characteristics of Applied Undergraduate Colleges

Applied undergraduate colleges aim to cultivate talents with practical skills and professional competence to serve local economic and social development. Thus, fund utilization not only focuses on traditional teaching and research activities but also prioritizes university-enterprise collaboration, practical teaching, and the construction of experimental and training facilities [15]. For instance, considerable resources are often allocated to building modern laboratories and training bases that simulate real professional environments for students. These expenditures on practical applications should be a key focus in the evaluation of budget performance.

Moreover, the financial sources of applied undergraduate colleges are diverse. In addition to government funding, social donations and self-generated funds are important components of their budgets. This diversification introduces complexity in fund management, necessitating performance evaluations to assess not only the rationality and efficiency

of fund usage but also tailor evaluation standards to different sources of funding. For instance, social donations may be primarily used for scholarships or special projects, and their performance evaluation should differ from government appropriations. Therefore, the budget performance evaluation system must be sufficiently flexible to adapt to the diverse funding sources and uses.

3.2 Theoretical Models for Budget Performance Evaluation

The budget performance evaluation system for applied undergraduate colleges can draw on the Balanced Scorecard (BSC) model from modern management theory. The BSC evaluates organizational performance through four dimensions: financial performance, customer satisfaction, internal processes, and learning and growth. Applying this model to university budget performance ensures a balanced evaluation of financial and non-financial goals, allowing for comprehensive assessment of the effects of fund utilization [16].

Firstly, the financial dimension assesses fund allocation ratios, utilization efficiency, and project completion rates. Indicators might include the budget execution rate, cost control capacity, and fund utilization efficiency. For instance, since applied undergraduate colleges often allocate a large portion of their budget to practical teaching and university-industry collaborations, the efficiency of fund utilization in these areas can be measured by the ratio of inputs to outputs. Secondly, the customer dimension reflects satisfaction levels among students and society. In applied undergraduate colleges, this evaluation might include indicators such as graduate employment rates, the effectiveness of university-industry collaborations, and the level of social services provided. These indicators assess how effectively budget funds enhance students' practical skills and employment quality.

Thirdly, the internal process dimension focuses on optimizing internal management and operational efficiency. This can be assessed by evaluating the flow of funds in teaching management and project execution. Since applied undergraduate colleges invest heavily in university-industry collaboration projects and practical teaching, the efficiency of internal processes is crucial for effective fund utilization. Indicators might include project completion timelines and cost-saving measures in management.

Lastly, the learning and growth dimension evaluates the university's investments in faculty development, teaching innovation, and student entrepreneurship projects. Indicators in this dimension might include faculty research achievements, teaching innovation efforts, and student entrepreneurial accomplishments. These indicators assess how effectively budget funds support teaching innovation, faculty development, and student entrepreneurial skills.

In addition to the Balanced Scorecard, the Logical Framework Approach (LFA) is another effective tool for constructing budget performance evaluation systems in applied undergraduate colleges. The LFA emphasizes the setting of clear objectives, which are then broken down into specific evaluation indicators. For applied undergraduate colleges, budget performance objectives can be set according to their educational strategies and broken down into specific evaluation criteria. For example, budget performance indicators can be designed based on long-term development goals, such as student employment, social services, and research innovation, ensuring that funds are aligned with the university's strategic goals.

3.3 Indicator Selection and Construction Path

In constructing a budget performance evaluation system for applied undergraduate colleges, the selection of appropriate indicators and the construction path are critical to success. Given the diversity and complexity of fund utilization in universities, the evaluation system should cover multiple dimensions, including financial performance, teaching quality, student development, and social services, to ensure comprehensive evaluation of fund utilization.

Firstly, financial performance primarily evaluates the effectiveness of fund management and utilization. Specific indicators might include the budget execution rate, fund utilization efficiency, and the rationality of fund allocation. These indicators reflect the efficiency and standardization of fund utilization, helping university administrators identify instances of waste or mismanagement. For instance, if certain equipment procurement costs exceed expectations but the utilization rate is low, performance evaluations will help identify and rectify such issues.

Secondly, teaching quality is a core component of budget performance evaluations in universities, primarily assessing how funds support teaching activities. For example, in medical experiments, investments in complex experimental equipment and technology are crucial for teaching and serve as a reference for evaluating whether budgeted funds have been appropriately used [17]. Indicators might include the utilization rate of teaching equipment, teaching outcomes, faculty teaching input, and student course satisfaction. These indicators reflect the use of teaching resources and evaluate the impact of financial investments on student development.

Thirdly, student development focuses on evaluating the impact of funds on improving students' practical skills and professional competence. Indicators might include graduate employment rates, student entrepreneurship achievements, and student participation in university-industry collaboration projects. These indicators reflect the university's commitment to student development, ensuring that fund utilization enhances students' employability and practical skills.

Lastly, social services reflect the university's contribution to local economic and social development. Applied undergraduate colleges often establish close ties with local industries through university-industry collaborations, contributing to regional economic needs. Indicators might include the number of university-industry collaboration projects, the rate of research outcome commercialization, and the university's contributions to local industries. These

indicators help assess the impact of budget allocations on social services, ensuring that funds in these areas are effectively utilized.

In selecting these indicators, special attention should be given to their adaptability and operational feasibility. The selected indicators should accurately reflect the educational characteristics of applied undergraduate colleges, avoiding comparisons with research universities or other types of institutions. Additionally, the indicators should be quantifiable to enable scientific evaluation through data. In the process of constructing this system, universities can base their indicator selection on strategic goals, incorporate feedback from internal and external experts, and assign appropriate weights to ensure the scientific rigor and rationality of the evaluation results.

Through this index system, applied undergraduate colleges can more effectively manage budgets and allocate resources, improving fund utilization efficiency and enhancing overall educational quality.

4 CONCLUSION

This study proposes a budget performance evaluation index system suited to the characteristics of applied undergraduate colleges. Based on theoretical analysis, combined with classic performance evaluation models such as the Balanced Scorecard (BSC) and the Logical Framework Approach (LFA), it explores how to construct a budget performance evaluation system that meets the practical needs of applied undergraduate colleges. The following summarizes the key conclusions and policy recommendations of the study.

4.1 Research Summary

First, this study analyzes the unique characteristics of applied undergraduate colleges and the particularities of their financial management. Compared to research universities, applied undergraduate colleges place more emphasis on practical teaching, university-industry collaborations, and the integration of production, education, and research. Consequently, their budget management must not only allocate funds for teaching and research but also consider practical teaching and related funding. Therefore, the budget performance evaluation system must encompass multiple dimensions, including financial performance, teaching quality, student development, and social services, to ensure that the utilization of funds reflects the core educational goals of these colleges.

Second, the study draws on the Balanced Scorecard and the Logical Framework Approach, combining them with the practical needs of applied undergraduate colleges, and proposes four key evaluation dimensions: financial performance, teaching quality, student development, and social services. These dimensions not only assess the efficiency of fund utilization but also evaluate the impact of financial investments on teaching, students, and society, ensuring a comprehensive evaluation of how university resources are used.

Additionally, the paper discusses how to select specific evaluation indicators in practice. By breaking down the university's strategic goals, the study proposes a performance evaluation index system for applied undergraduate colleges. This system provides flexible evaluation methods tailored to different funding sources and uses. The system helps university administrators allocate and utilize resources more scientifically and rationally, improving the overall quality of education.

4.2 Policy Recommendations

Based on the research findings, applied undergraduate colleges should consider the following points when implementing a budget performance evaluation system:

Firstly, universities should further clarify their strategic goals in budget management. The core of performance evaluation lies in aligning with the institution's development goals. Therefore, budget management should be closely aligned with the educational mission of applied colleges. When determining the index system for performance evaluation, universities should integrate their long-term development goals with specific financial management practices, ensuring that fund utilization is aligned with the institution's core strategies.

Secondly, universities should balance the evaluation of financial and non-financial performance. In practice, financial performance is often easier to quantify and measure, but non-financial performance (such as teaching quality, student development, and social services) is also crucial in budget performance evaluations. Therefore, when designing a budget performance evaluation system, institutions should give appropriate weight to both financial and non-financial performance, ensuring that resource allocation and utilization lead to comprehensive improvements in institutional performance.

Thirdly, it is recommended that universities use information technology to optimize the budget performance evaluation process. Modern university budget management often involves multiple funding sources and purposes, making the process complex. Traditional manual operations make it difficult to achieve full tracking and dynamic evaluation. Therefore, applied undergraduate colleges can utilize modern information technology to build budget management information systems, achieving full-process monitoring and performance evaluation of fund utilization. This would improve the efficiency and transparency of budget management.

Finally, universities should establish a long-term feedback mechanism for budget performance evaluation. After the execution of the budget, institutions should regularly review and summarize the effectiveness of fund utilization. Through a feedback mechanism, universities can continuously optimize their budget performance evaluation index system, ensuring that it adjusts dynamically with the institution's development needs and external environment changes.

This mechanism helps administrators identify problems in real time and provides scientific support for future budget planning.

4.3 Future Research Outlook

Although this study has constructed a budget performance evaluation index system suited to the characteristics of applied undergraduate colleges, empirical research is still needed to validate and refine this system across more institutions. Future research can further analyze large-scale data, comparing budget management models and performance evaluation results across different types of applied undergraduate colleges. This will help explore performance differences under various educational conditions. Moreover, with ongoing reforms in higher education, changes in government policies and social and economic developments will present new challenges to university budget management. Therefore, future research should focus on the dynamic adjustment of budget performance evaluation systems, ensuring they can respond to changing external environments and internal management needs.

Through these suggestions and research outlooks, applied undergraduate colleges can continue to optimize their budget performance evaluation systems, improve management standards, prove the efficiency of fund utilization and promote higher educational quality and management.

COMPETING INTERESTS

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