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EDUCATION COST ACCOUNTING AND MANAGEMENT: A DISCUSSION ON PROMOTING UNIVERSITIES' COST ACCOUNTING AND MANAGEMENT WITH THE CONCEPT OF "LEAN MANAGEMENT"

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Abstract: Cost control constitutes a core strategic priority for university operation and management. Building on the strategic value of cost control within higher education institutions, this paper examines the current state of university cost management, introduces the lean management concept, and elaborates on targeted measures to improve universities' cost accounting and management by adopting lean management thinking. This research aims to further standardize university cost accounting and management systems, improve the efficiency of fund utilization, and facilitate the scientific allocation of campus resources.
Keywords: University cost; Accounting control; Lean management

1 INTRODUCTION

1.1 Cost Accounting and Management in Universities Is a Policy Requirement Issued by the Ministry of Finance

The *Specific Guidelines for Cost Accounting of Public Institutions – Institutions of Higher Education* (Caikuai [2022] No.26) states that standardized cost accounting and management in universities helps improve internal management and operational efficiency, supports the full implementation of budget performance management in universities, and promotes the high-quality development of higher education.

1.2 Cost Accounting and Management in Universities Is an Inevitable Measure to Implement the Requirements of the Central Government

After the regular management of the COVID-19 pandemic in 2024, the global economy came under substantial downward pressure. As public institutions, institutions of higher education should earnestly implement the central authorities' directives and strengthen cost accounting. This helps improve the efficiency of fiscal fund utilization and achieve the goal of high output at low cost.

1.3 Cost Accounting and Management in Universities as the Foundation of Budget Performance Management

Standardized cost accounting implemented by universities provides cost information support for finance, education, and other relevant authorities to carry out performance management covering university-wide, policy, and project dimensions. It also lays a foundation for universities to conduct performance self-assessment.

1.4 Cost Accounting and Management in Universities as an Objective Requirement for Improving Fund Utilization Efficiency and Optimizing Resource Allocation

Standardized cost accounting in universities delivers information support for reasonable cost control, cost structure optimization, and enhancement of fund utilization efficiency. Meanwhile, it offers cost information reference for resource allocation optimization, such as the formulation of tuition fee standards.

2 CHARACTERISTICS OF COST ACCOUNTING AND MANAGEMENT IN UNIVERSITIES

The core function of universities is talent cultivation. Universities conduct teaching, scientific research, and social services to ensure that the quality of education and teaching meets the standards stipulated by the state. The professional business activities of universities mainly consist of teaching, scientific research, and social services. Teaching activities include basic teaching activities such as classroom teaching, laboratory courses, internships, social practice, and graduation theses[1]. Research activities cover scientific research, technology, academic work, popular science, and other research-related businesses. Social service activities include teaching services, scientific and technological services, information services, equipment opening services, and other services.
The cost accounting objects defined by universities according to administrative levels mainly include the university as a whole, internal departments, disciplines, and majors. The cost accounting objects categorized by activity types mainly

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encompass professional business activities such as teaching and scientific research, as well as other activities.
The stakeholders demanding university cost information involve the state (central and local finance), competent education authorities, and internal university management. The applications of university cost information cover macro decision-making, fiscal appropriation adjustment, education resource allocation, managerial decision-making, cost control, and performance assessment (see Table 1)[1-2].
Diversified business activities and varied demands for cost information result in diverse requirements and complicated management of university cost accounting.

Table 1 List of Demand for University Cost Information

Stakeholders of Cost Information Demand	Purposes of Cost Information
The state (central and local finance)	Macro decision-making, fiscal appropriation adjustment
Competent education authorities	Education resource allocation, performance assessment
University itself	Performance assessment, cost control
Special fund management of universities	Managerial decision-making, cost control, performance assessment

3 CURRENT SITUATION AND DILEMMAS OF COST ACCOUNTING AND MANAGEMENT IN UNIVERSITIES

First, universities, as public institutions, started cost accounting relatively late with weak awareness of cost management, featuring the tendency of "valuing project application over fund management". It is common that project application takes precedence over management, direct cost accounting is prioritized over indirect cost accumulation, and more attention is paid to resource input rather than output benefits.
Second, after funds are allocated to budget entities, there is no dedicated and scientific system for cost accounting and management, nor systematic cost control approaches. The concept of full-cycle complete cost accumulation is absent. Extensive cost allocation methods and ambiguous boundaries of allocation scope lead to the failure to focus resource consumption on accurate accumulation of real costs. The principle of "beneficiaries bear the costs" cannot be followed, making precise cost management unattainable.
Third, there is a lack of an information-sharing platform for cost accounting. Full cost accounting data includes direct costs and indirect costs (building occupancy, equipment depreciation, public energy consumption, management services, etc.), which requires integrating data from finance, assets, human resources, logistics, and other departments. A large number of fund projects and complicated allocation rules demand advanced and scientific information technology support. Due to uneven data quality across departments, poor data sharing mechanisms, the absence of unified data interfaces and exchange standards, and inadequate information technology support, cost accumulation still relies heavily on manual accounting. Consequently, regular and refined full-cost accounting cannot be realized[3].

4 PROMOTING THE DEVELOPMENT OF COST ACCOUNTING AND MANAGEMENT IN UNIVERSITIES WITH THE CONCEPT OF "LEAN MANAGEMENT"

Based on the new development stage, implementing the new development philosophy and fostering a new development pattern, universities are in urgent need of introducing scientific management concepts to comprehensively advance the development of cost accounting and management, so as to standardize university cost accounting and realize scientific cost accounting and management.

4.1 The Concept of "Lean Management"

Originating from lean production, lean management has gradually extended from management practices in production systems to various management activities of organizations, evolving from a specific operational management method into a strategic management philosophy. The core of lean management is to create the maximum possible value with minimum resource input.
The basic principles of lean management are as follows: First, meet customer demands: clarify customer requirements and focus on satisfying such demands. Second, optimize value streams: pay attention to every link throughout the value stream, identify bottlenecks and defects, and improve overall efficiency and quality through optimization. Third, achieve continuous improvement: emphasize an excellent management process of constant optimization. Fourth, eliminate waste: generate greater economic benefits by removing all forms of waste.

4.2 Overview of Lean Concept for University Cost Accounting and Management

Introducing the concept of lean management to advance university cost accounting and management requires universities to focus on business operations and development drivers, adhere to problem orientation, systematic promotion, integration of management and business, and full staff participation, and improve lean management mechanisms, so as to fulfill responsibilities in advancing high-quality development[4-6]. The principles of lean management for university cost accounting include goal orientation, detailed management, pursuit of excellence, and benefit sharing.

4.2.1 Goal orientation principle

The goal orientation principle requires that universities' cost accounting and management consistently focus on core objectives, achieve coordinated efforts, mutual empowerment, and joint improvement. When carrying out cost accounting and management, universities should always center on the overall development of the institution. Only by adhering to the "awareness of the bigger picture" can all efforts be aligned, so as to truly realize the economic benefits of cost accounting and management. Guided by objectives, universities shall closely respond to practical business needs, stick to the "integration of management and business," and conduct in-depth analysis and sorting of business procedures in combination with the characteristics of teaching, scientific research, and social services. From the perspective of lean management, universities need to identify bottlenecks and defects in cost management for improvement and continuous optimization.

4.2.2 Detailed management principles

The detailed management principle requires universities' cost accounting and management to be organically integrated with business activities. From the perspective of all elements and the whole management cycle of universities, lean thinking shall be adopted to comprehensively review and propose improvements to internal systems, procedures, and standards. The diversity of university business activities leads to diversified demands and complicated management of cost accounting. Therefore, cost accounting management needs to pay attention to every link in the whole business process and emphasize detailed management, so that cost management can be vitalized, function effectively, and achieve proactive governance.

4.2.3 Pursuit of excellence principle

The pursuit of excellence principle requires universities' cost accounting and management to persist in continuous improvement and learning. The concept of lean management highlights the value of iterative improvement and continuous optimization for excellent management. Building universities into learning organizations and promoting the localization of lean management concepts will facilitate the development of university cost accounting and management, and foster a management culture featuring full-staff participation, systematic advancement, and continuous improvement.

4.2.4 Benefit sharing principle

The benefit-sharing principle aims to eliminate waste to the greatest extent through university cost accounting and management and realize benefit sharing. Universities shall attach importance to cost accounting performance management with positive incentives. All departments and staff participating in cost accounting and management can share the benefits brought by cost management, which helps promote the construction of university cost accounting and management.

4.3 Measures to Promote the Construction of University Cost Accounting and Management Based on the Lean Management Concept

4.3.1 Full-staff participation

University operations cover teaching, scientific research, and social services, and all business activities consume resources. It is essential to abandon the misconception that cost control is solely the responsibility of financial staff. Adhering to full-staff participation, scientific division of labor, due responsibility fulfillment, and active accountability ensures the effective implementation of cost control. Universities can establish a school-level leading group for cost control with unified overall leadership to coordinate relevant departments and clarify job responsibilities. A top-down hierarchical management organizational structure should be formed to jointly advance cost control, so as to translate the construction of lean cost accounting and management into tangible operational management benefits for universities.

4.3.2 Systematic promotion

From the perspective of all elements and the whole management process of university operations, universities shall adopt lean thinking to comprehensively review internal systems, procedures, and standards, and build a basic framework for university cost accounting and management. The framework includes five core contents: first, improving and optimizing the leading mechanism and working mechanism of cost accounting; second, clarifying the responsibilities of relevant departments involved in cost accounting; third, formulating work plans and supporting systems for cost accounting; fourth, defining the accounting objects of university costs; fifth, specifying the cost scope and cost items corresponding to each accounting object.

4.3.3 Integration of management and business

Cost control shall be organically integrated with the daily business activities of universities. Financial staff are required to be familiar with business processes and operational characteristics, so that cost control can run through the entire process of all business activities. The university finance department shall set up an independent cost accounting and management unit, and each business department shall assign special personnel to take charge of docking cost management work. Meanwhile, a smooth and efficient communication mechanism integrating financial management and business operations shall be established to strengthen communication and cooperation between financial and business departments. To realize lean cost accounting and management, universities need to strengthen the construction of professional cost management talent teams.

4.3.4 Goal orientation

The development of university cost accounting and management shall focus on the core goal of university talent cultivation and operation. The diversification of university business activities leads to diversified demands and complex management of cost accounting. Only by taking the core school-running goals as the fundamental orientation can

universities effectively balance the rights and responsibilities of all parties in cost control. Lean cost accounting and management requires universities to refine and decompose core goals layer by layer in combination with departmental functions and business characteristics. A multi-dimensional cost control goal system can be constructed, covering strategic goals of university cost management, functional goals of internal department cost management, project-based business cost management goals, annual overall cost control goals of the university, annual cost management goals of internal departments, and annual management goals of specific cost items, so as to realize standardized and targeted lean cost control.

4.3.5 Detailed management

Lean cost accounting and management attach great importance to whole-process and refined control. Only by examining every detail from the perspective of full elements and entire management procedures can universities identify bottlenecks and defects in cost management, which are the key problems to be solved and the core demands for implementing lean management. Extensive cost control will inevitably reduce the application value of cost accounting data, weaken the supporting role of cost analysis in operational decision-making, and undermine the fairness of cost management performance assessment.

University cost items mainly include salary and welfare expenses, commodity and service expenses, subsidies for individuals and families, and fixed asset depreciation expenses. Among them, detailed commodity and service expenses cover office expenses, water and electricity fees, travel expenses, official reception fees, taxes and surcharges, etc. The proportion, cost drivers, and accounting methods of different cost items vary in different business activities (see Table 2)[7]. Therefore, university lean cost control must be closely aligned with actual business operations to strengthen refined management. In addition, universities need to enhance whole-process management, conduct timely statistical analysis and regular notification in accordance with the monitoring cycle of cost indicators, and build a systematic cost control diagnosis mechanism integrating goal notification, analytical improvement, and innovative research[8].

Table 2 Selection of University Cost Accounting Methods under Different Demands for Cost Information

Stakeholders of Cost Information Demand	Purposes of Cost Information	Major Cost Accounting Objects	Cost Accounting Methods	Remarks
The state (central and local finance)	Macro decision-making, fiscal appropriation adjustment	School-running cost	Full-cost method	Adhere to the consistency principle of accounting objects, accounting years, and accounting methods to ensure data comparability among educational institutions and enhance the utility of financial data.
Competent education authorities	Education resource allocation, performance assessment	Per-student education cost	Full-cost method	
University itself	Performance assessment, cost control	Faculty and department teaching cost, departmental cost	Activity-based costing	For the accounting of faculty/department teaching cost and departmental cost in universities, cost objects may include teaching management cost centers, auxiliary teaching management cost centers, administrative management cost centers, etc. Activity-based costing is adopted to allocate activity costs according to cost drivers, providing a sound basis for departmental budget performance management.
Special fund management of universities	Decision-making management, cost control, performance assessment	Research project cost, infrastructure project cost, laboratory construction project cost, etc.	Activity-based costing, full life-cycle method	Strengthen cost management of special university projects, allocate costs based on activity volume, and implement full life-cycle management, so as to build long-term competitive advantages and achieve long-term development strategies.

4.3.6 Pursuit of excellence

The implementation of lean cost accounting and management in universities is reflected in the continuous optimization of business processes, reduction of operating costs, improvement of management efficiency, and elimination of operational risks and loopholes. Universities can promote lean cost management improvement from multiple dimensions, including making up for shortcomings, consolidating strengths, joint problem-solving, and task-oriented tackling of key problems. A multi-level supporting system for cost management goals shall be established, which includes not only quantitative indicators, but also benchmarking practices and standards at home and abroad. The indicators cover benefit-oriented outcome indicators, quality-oriented process indicators, and forward-looking predictive indicators, giving full play to the monitoring and guiding role of the cost control goal system. This will enable all business departments to deeply participate in the overall cycle of lean cost control and ensure that lean management is always consistent with the practical needs of university development strategies.

4.3.7 Benefit sharing

The core purpose of constructing lean cost accounting and management in universities is to eliminate all unnecessary waste, realize rational allocation of educational resources, and improve the efficiency of fund utilization. Universities can establish a performance-oriented budget management mechanism with positive incentives through benefit sharing, by linking cost management benefits with annual performance rewards, job promotion, and other incentive measures. Meanwhile, diversified positive incentive methods, such as public announcement of lean cost management innovation achievements, can be implemented to sustainably promote the high-quality development of university lean cost accounting and management[8].

4.3.8 Information technology support

The construction of university lean cost accounting and management relies on information technologies such as big data and intelligent technology, which empower management innovation and support refined cost management. Lean cost control requires interconnection and data sharing between management and business departments. The processing of massive cost data puts forward high requirements for timeliness and computational accuracy, making information technology support indispensable. Universities should accelerate the intelligent construction of cost accounting and management systems to lay a solid technical foundation for full-process and refined lean cost management.

5 CONCLUSION

The state has continuously increased investment in education, while the management and effective utilization of educational funds have attracted extensive public attention. Targeting the characteristics and current situation of university cost management, this paper introduces the concept of "lean management" and elaborates on specific measures to promote university cost accounting and management under this concept. It aims to advance the standardization of university cost accounting and management, improve the efficiency of fund utilization, and optimize resource allocation.

COMPETING INTERESTS

The authors have no relevant financial or non-financial interests to disclose.

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