Common Problems and Countermeasures in University Asset Management

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Abstract: With the rapid development of China's economy and society, the external environment in which universities operate has undergone profound changes, the asset management of universities faces significant opportunities and challenges. Currently, universities' assets exhibit not only a wide variety of types but also increasingly complex structures, with the total volume continuously expanding. This situation poses higher demands on the effectiveness of asset management, which is directly tied to enhancing the quality of university education services. Therefore, research on asset management in universities has become a common focus of attention in both academic and practical fields. This article aims to comprehensively outline the basic framework of asset management in universities, and through in-depth analysis of the current operational status of asset management, explore and propose a series of optimization strategies, in order to provide reference and inspiration for the improvement of asset management in universities.

Keywords: Universities; Small Scale Sporadic Procurement; Promotion of Information Technology; Platform Construction;

1. Introduction

With the continuous increase in national investment in education, the operating conditions of universities have significantly improved, and fixed assets have attained considerable levels in both quantity and scale. As one of the three core management elements in universities, namely "people, finance, and materials," the management of fixed assets serves not only as a vital guarantee for the material foundation of universities but also directly impacts the enhancement of education and teaching quality as well as the efficiency of school operations. Nevertheless, universities currently face numerous challenges in managing general fixed assets, which encompass intangible assets, low-value items, and consumables. Addressing these issues has emerged as a crucial task that universities urgently need to tackle.

2. Overview of University Asset Management

University asset management encompasses a range of activities aimed at planning, acquiring, utilizing, maintaining, evaluating, and disposing of the various assets owned by a university. These activities are conducted to ensure the effective fulfillment of the university's various functions, including teaching, scientific research, and social services. These activities span the entire process, from asset procurement and warehousing to usage, maintenance, depreciation calculation, and ultimate disposal. The goal is to ensure the safety, integrity, rational allocation, and efficient utilization of assets, thereby supporting the university in achieving its educational objectives and fulfilling its social missions.

Assets are resources created through enterprise transactions and related activities, owned or controlled by the enterprise, and anticipated to yield economic benefits, encompassing current assets, fixed assets, intangible assets, and more. In the realm of higher education, assets possess state-owned attributes, covering non-operational office assets, operational assets, and other public properties. University asset management is not just a fundamental requirement, but also directly impacts the vital interests of teachers and students, playing a pivotal role in delivering high-quality educational services.

In recent years, as China's "science and education for national revitalization" strategy has advanced, the widespread popularization of higher education has driven a continuous

increase in the asset scale of universities, posing severe management challenges. According to statistics, universities like Peking University, Tsinghua University, and Jilin University have each amassed assets exceeding 10 billion yuan. The sources of assets for universities have also become diversified. Besides traditional sources such as student tuition fees, special funds, and subsidies from higher authorities, universities have also expanded their scale through restructuring and mergers. Furthermore, amidst the "Million Enrollment Expansion" policy, the rapid increase in student enrollment coupled with insufficient government investment in education has compelled universities to rely on loans for operational needs, resulting in a high debt ratio. [1-3]

3. Introduction to the Current Asset Management Status of Universities

3.1 Loose Asset Management Organizational Structure, Lack of Staffing

In recent years, as university construction has progressed, the scale of physical assets has expanded continuously. Universities have successively implemented various new management systems, setting higher standards for risk control, information statistics, shared utilization, and supervisory management of fixed assets. However, most universities have yet to establish independent asset management departments. Asset management functions and personnel are often integrated within other departments, leading to unclear responsibilities. Additionally, asset management personnel exhibit high turnover, with part-time work being prevalent. There is an inadequate staffing level for fixed asset management, making it challenging for a small number of personnel to handle the extensive and complex workload. Simultaneously, the concept of fixed asset management remains relatively outdated, with insufficient systematic and specialized training and guidance, and limited opportunities for communication and learning.

3.2 Lack of Scientific and Rational Asset Allocation

Each department within the university has its own responsibilities and certain procurement needs. However, the absence of scientific and reasonable budget management prior to asset purchases has led to some departments' ineffective implementation of asset allocation standard documents, resulting in asset purchases exceeding quantity and value limits. Units with relatively sufficient funds often blindly purchase new assets and equipment without considering actual needs, while departments with tight funding are unable to update and replace the assets they truly need. This funding disparity has led to uneven distribution of asset purchases.

Some departments, for the sake of convenience, may apply for the purchase of assets they do not frequently use, even if these assets can be borrowed from other departments, due to cumbersome processes. This approach lacks consideration for the school's overall purchasing needs. The lack of sharing awareness and platforms among departments often results in a lack of careful planning when purchasing assets, leading to redundancy in university assets. For example, expensive large instruments and equipment may remain idle for extended periods, failing to fulfill their intended roles and affecting the turnover of assets and funds in universities.

Additionally, the on-site acceptance of assets is often superficial, and the registration and accounting procedures are not processed in a timely manner after purchase. Sometimes, the department fails to affix the asset barcode label promptly after accounting is completed, leading to the label falling off over time and causing discrepancies between the records and the actual assets. Furthermore, there are instances where the brand and parameters of purchased assets do not match the contract bidding documents, and in some cases, the equipment is not supplied according to the contract, resulting in delays of several years. These issues not only increase the complexity of management but also seriously affect the efficiency and effectiveness of asset management in universities.

3.3 Insufficient Standardization in Asset Disposal and Unclear Income

Universities have not strictly followed standard procedures for asset scrapping, leasing, external investment, and leasing, leading to improper asset handling and causing significant economic losses and asset loss. Specifically, these issues manifest in the following aspects:

Timely Scrapping of Assets: Many assets have reached their retirement age and no longer have any useful value, but they have not been scrapped in a timely manner. This results in an overstatement of the asset's book value.

Delayed Disposal of Consumables and Scrapped Assets: Some low-value consumables and partially scrapped assets have been stored in warehouses for extended periods without effective disposal. The residual value of these assets has not been managed properly or turned over to the government as required, further exacerbating asset waste and management chaos.

These issues not only affect the authenticity and integrity of university assets but also increase management costs and reduce the efficiency of asset management.

3.4 Breaking the Asset Information Silo and Enhancing Asset Informatization Construction

In the context of modernization, information technology is increasingly being applied across various industries, and information management technology has had a positive impact on unit performance management, internal control, and accounting systems. Therefore, universities need to accelerate the construction of an integrated information platform to break down the silos of independent systems, enhance the integration of various systems, and optimize the connections between different systems such as final accounting management, accounting processing, budget control, asset management, contract management, and non-tax revenue. Through this platform, we can support the precise and scientific management of fixed assets, achieving a comprehensive improvement in management goals.

3.5 Strengthening Information Technology Construction

Currently, the fixed asset management information system in universities has been widely adopted. However, some units focus primarily on the input and storage of asset data, without fully utilizing the system's dynamic management capabilities for real-time monitoring and effective management of assets. As a result, critical asset information in the system, such as installation location, service life, department, and usage status, is typically only updated during asset inventory and not adjusted in real-time based on actual usage. This persistent issue not only seriously undermines the efficiency and service level of asset management but also significantly reduces the value of the system as a decision-support tool for management.

In addition, the lack of effective information sharing mechanisms for instruments and equipment further hinders the rational allocation of resources. In some universities, there is a common problem of duplicate procurement and long-term idling of fixed assets. Even advanced equipment may have low utilization rates or remain completely unused after purchase due to insufficient operators or inadequate training. These issues not only waste valuable educational resources but also impede the smooth development of scientific research and teaching activities. [4-6]

4. Suggestions for Asset Management Methods in Universities

4.1 Establish a Sound Organizational Structure for Asset Management

Universities should establish specialized asset management institutions, clearly define responsibilities, and ensure the professionalization and standardization of asset management. These institutions should be responsible for the comprehensive management of assets, including their purchase, use, maintenance, and scrapping.

Develop a Scientific Asset Management Strategy: Based on the university's development plan and actual needs, develop a scientific asset management strategy. Clearly outline the goals, principles, and measures for asset management to ensure the effective allocation and efficient utilization of assets.

Strengthen Asset Inventory and Counting: Conduct regular asset inventory and counting to ensure that asset records match reality. Timely detect and address issues such as asset loss and damage, ensuring the safety and integrity of assets.

Establish and Improve the Asset Management System: Develop and refine the asset management system, including detailed operating procedures for asset purchase, use, maintenance, and scrapping. Ensure that asset management is conducted according to

established rules and guidelines, providing a clear framework for operations.

4.2 Tighten Asset Budget Management and Strictly Control Admission Standards

Scientific Preparation of Asset Budgets: Based on the teaching, research, and social service needs of the university, scientifically prepare annual asset budgets to ensure that asset purchases are well-planned and justified, avoiding blind procurement and resource waste.

Strict Approval of Asset Purchases: Establish a rigorous asset purchase approval process, ensuring that all asset purchases are reviewed and approved by relevant departments. This ensures that every expenditure meets both budgetary constraints and actual needs.

Strengthen Budget Execution Supervision: Regularly inspect the execution of asset budgets to ensure the reasonable use of budget funds. Timely correct any deviations in budget execution and improve the transparency and credibility of budget management.

4.3 Promote the Construction of Asset Management System to Ensure the Smooth Operation of Internal Controls

Refine Asset Management System: Develop specific management systems and operating rules for different types and purposes of assets to ensure the refinement and standardization of asset management.

Implement Full Lifecycle Management of Assets: From the purchase, use, maintenance to scrapping of assets, implement comprehensive process management to ensure that assets are effectively managed and utilized at every stage.

Regular Evaluation of Asset Management System: Regularly evaluate and revise the asset management system to ensure its adaptability and effectiveness. Promptly address new problems and challenges that arise in management.

4.4 Breaking the Phenomenon of Isolated Asset Systems and Improving the Level of Information Management

4.4.1 Building an integrated information platform

Accelerate the construction and improvement of an integrated information platform for universities. Integrate existing asset management systems, financial systems, procurement systems, and others to achieve data interconnectivity and resource sharing.

4.4.2 Promoting the Integration of asset management systems

Utilize technological means to achieve seamless integration between asset management systems and other business systems, thereby enhancing the automation and intelligence levels of asset management.

4.4.3 Strengthening data security and privacy protection

In the process of advancing information management, prioritize data security and privacy protection. Prevent data leakage and abuse to ensure information security.

4.4.4 Enhancing personnel's information literacy

Strengthen information technology training for asset management personnel to improve their information literacy and operational skills. Ensure they can proficiently use information tools, thereby enhancing work efficiency.

Through these measures, universities can comprehensively improve the level of asset management, ensure the effective utilization and safe management of assets, and provide a solid material foundation for their sustainable development.

4.5 Building a Big Data Analysis System

4.5.1 Develop mobile applications

Through the asset management system, develop applications suitable for various terminals such as smartphones. Users can simply scan the device barcode to easily view and track asset accounting, information changes, asset depreciation, and other data, achieving comprehensive information interaction both online and offline.

4.5.2 Building data analysis software

Build a data analysis software that can widely collect and integrate various data related to asset management, and use this software as a powerful data support library for university asset systems.

4.5.3 Intuitive asset visualization

Utilize big data analysis systems in conjunction with data asset heat maps to display the distribution and flow of key assets in a more intuitive manner. This allows asset management departments to accurately grasp the actual utilization efficiency of assets across various colleges and departments.

4.5.4 Optimize asset utilization
Reduce idle assets and improve asset utilization through scientific and rational asset allocation. Asset management departments can gain a comprehensive understanding of the pain points in the entire lifecycle management process of assets, from procurement to disposal, to optimize management processes, enhance service quality, and improve efficiency.
4.5.5 Predictive analytics and decision support
With the powerful functions of big data analysis systems, managers can quickly obtain information on asset status and its dynamic changes, predict development trends, and formulate more accurate management strategies. Based on the supply and demand relationship and management operation mode of school assets, a series of analysis models can be established to create a concise and efficient decision support system, providing scientific decision-making suggestions for management. [7-8]

5. Innovative Reforms and Sustainable Development

Actively explore innovative reforms in asset management and service models to promote the cultivation of "dual carbon" professionals in universities, aiming to achieve carbon peak and carbon neutrality in the fields of energy, materials, environment, and ecology. Continuously strengthen the ability and level of the asset management system to support the construction of basic scientific research facilities, provincial and ministerial-level, and state key laboratories, as well as the development of scientific research ecosystems, to facilitate the high-quality development of scientific research in colleges and universities.

5.1 Develop Mobile Applications

Develop an asset management system that can be used for mobile applications. Users can simply scan the device barcode to easily complete real-time viewing and tracking of asset accounting, information changes, asset depreciation, and other data, achieving comprehensive information interaction both online and offline.

5.2 Collect and Integrate Data

Widely collect and integrate various data on asset management to build an efficient big data analysis platform. This platform will provide robust data support for asset management in universities.

5.3 Intuitive Asset Visualization

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