ECONOSCITECH INTEGRATION

ISSUE 5

INTERNATIONAL SCIENTIFIC ELECTRONIC JOURNAL

TASHKENT STATE UNIVERSITY OF ECONOMICS

American University of Technology
Powered by Arizona State University®

ISSN: 3060-5075

Acceptance of articles

PUBLISHED EVERY MONTHLY

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OPEN ACCESS

CONTACT: +998 94 3540880 https://econoscitech-integration-journal.uz 2026

THE SCIENTIFIC-POPULAR ELECTRONIC JOURNAL **"ECONOSCITECH-INTEGRATION"** HAS BEEN REGISTERED UNDER THE NUMBER C-5669651 BY THE AGENCY FOR INFORMATION AND MASS COMMUNICATIONS (AOKA) OF THE REPUBLIC OF UZBEKISTAN, EFFECTIVE FROM OCTOBER 9, 2024.

In accordance with Resolution No. 384/6 dated April 10, 2026, issued by the Presidium of the Supreme Attestation Commission under the Ministry of Higher Education, Science and Innovation of the Republic of Uzbekistan, this journal is included in the list of recommended international scientific publications for publishing the primary research findings of doctoral dissertations in the field of Economic Sciences.

Partners: Tashkent State University of Economics / American University of Technology in Tashkent (AUT)

Electronic publication, Issue 5. 374 pages.
Approved for publication on May, 2026.

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DESCRIPTION OF THE KEY FUNCTIONAL ELEMENTS OF MANAGING FINANCIAL RESOURCES OF HIGHER EDUCATION INSTITUTIONS DURING THE PERIOD OF DEVELOPMENT

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Abstract. This article examines the theoretical and methodological foundations and practical aspects of financial resource management in higher education institutions. The study systematically analyzes the key functional elements of financial management — budgetary planning, execution, control, and analysis. The sources of financial resource formation, their institutional characteristics, and functional roles in higher education institutions are investigated. The article proposes a balance model (1) reflecting the equilibrium between financial revenues and expenditures, as well as an updated dynamic model (2) capturing revenue growth trends. Strategic directions for ensuring financial sustainability in the competitive environment between public and private higher education institutions are substantiated. The research findings include practical recommendations aimed at expanding the financial autonomy of higher education institutions and increasing revenues from scientific and innovative activities.

Keywords: financial management, higher education institution, budget management, financial resources, revenue diversification, budget control, financial stability, research income.

Аннотация. В данной статье рассматриваются теоретико-методологические основы и практические аспекты управления финансовыми ресурсами в высших образовательных учреждениях. В исследовании системно анализируются ключевые функциональные элементы финансового управления — бюджетное планирование, исполнение, контроль и анализ. Изучены источники формирования финансовых ресурсов, их институциональные особенности и функциональная роль в высших образовательных учреждениях. В статье предложена балансовая модель (1), отражающая равновесие между финансовыми доходами и расходами, а также обновлённая динамическая модель (2), характеризующая тенденции роста доходов. Обоснованы стратегические направления обеспечения финансовой устойчивости в условиях конкурентной среды между государственными и негосударственными высшими образовательными учреждениями. Результаты исследования включают практические рекомендации, направленные на расширение финансовой автономии высших образовательных учреждений и увеличение доходов от научной и инновационной деятельности.

Ключевые слова: финансовое управление, высшее образовательное учреждение, бюджетное управление, финансовые ресурсы, диверсификация доходов, бюджетный контроль, финансовая устойчивость, доходы от научной деятельности.

INTRODUCTION

The issue of managing financial resources in higher education institutions is directly linked to the quality of higher education, the effectiveness of scientific research, and regional socio-economic development. In recent years, reforms aimed at expanding the higher education network in Uzbekistan, increasing admission quotas, diversifying the education services market, and strengthening the academic and financial autonomy of universities have been gaining momentum. In the context of these reforms, financial resources are becoming not merely a tool for "covering expenses," but an institutional driver of strategic development: upgrading infrastructure, enhancing the capacity of faculty and teaching staff, creating a digital learning environment, modernizing scientific laboratories, expanding international cooperation, and ensuring sustainable financing of social support programs for students are all determined precisely by the volume of resources and the quality of their management. The relevance of the topic lies in the fact that the concept of "resource" in higher education institution finance carries a multi-layered meaning: it encompasses budgetary funds, contract payments, scientific grants, economic agreements, export of services, endowment or sponsorship revenues, income derived from the use of assets, financing instruments such as credit and leasing, and, in certain cases, resources based on social partnership. Since each type of source is subject to different constraints, reporting requirements, and risk profiles, it becomes difficult to establish effective management mechanisms without first clarifying the socio-economic substance of these resources. For this reason, the present study theoretically and practically examines the socio-economic substance of financial resources in higher education institutions and analyzes the functional role, sources of formation, and institutional characteristics of these resources.

The practical experience of public finance management demonstrates that the chain of targeted absorption of state expenditures by budgetary institutions, fund-distributing authorities, and recipient entities constitutes the primary research object of comprehensive budget management. The mechanism of operatively managing limited financial resources at various stages of the budgeting cycle proves how relevant it is to form financial projects integrated within the national budget system. Nevertheless, the theoretical-methodological and practical aspects of improving budget management remain insufficiently analyzed in today's economic literature. Although certain discussions exist among the scientific community and leading economists on this matter, the majority of them firmly acknowledge that the ultimate effectiveness of public finance is directly dependent on efficient budget management systematically implemented at various hierarchical levels.

LITERATURE REVIEW

The foreign economist L.B. Yevtukh, who has investigated the distinctive conceptual features of budget management within the system of public financial resource administration, identifies several functional pillars of this process in his scholarly approaches. In particular, the scholar places special emphasis on the complex mechanisms of influence exerted by managing authorities over the object at each stage of the budget cycle, as well as on the regulatory patterns governing financial relations within the legislative framework and the principles of forecasting. Furthermore, he underscores that coordinating the implementation of adopted strategic decisions, ensuring clear accountability, stimulating performance outcomes, and establishing financial control are the core elements of budget management [1].

Based on the considerations outlined above, it can be concluded that budget management is an integral system that unites public finance management at the macro level and financial management of budgetary institutions at the micro level around unified strategic objectives, while ensuring mutual synergistic interconnection between them.

In turn, researchers S.V. Mikhaylenko [2] and S.M. Frolov, who have conducted in-depth scientific investigations in this field, have comprehensively analyzed the institutional, scientific-methodological foundations and principles of organizing budget management. In their conclusions, the scholars have scientifically substantiated that this field has evolved not merely as a process, but as one of the highest-priority and inseparable branches of modern financial management science [3].

According to the scientific conclusions of economist A.A. Makhmudov, the level of investment attractiveness of higher education institutions is directly and closely linked to the scale of their activities in the education market, as well as the quality of the services they provide [4].

RESEARCH METHODOLOGY

This study adopts a descriptive-analytical research design to investigate the functional elements of financial resource management in higher education institutions during the period of development and transformation. The research is grounded in a systems approach, which allows for a comprehensive examination of financial management as an integrated mechanism encompassing planning, execution, monitoring, and control functions.

The primary data sources include normative legal documents regulating the financial activities of higher education institutions in Uzbekistan, scientific publications of domestic and foreign economists specializing in public finance and budget management, as well as institutional reporting data reflecting the financial performance of higher education institutions.

The research methodology incorporates the following analytical methods:

Logical and structural analysis was applied to examine the conceptual foundations of financial management in higher education institutions and to identify the key functional elements of the budget management cycle, including financial forecasting, planning, budget execution, analytical reporting, and internal audit procedures.

ANALYSIS AND RESULTS

The limited availability of budgetary resources observed under current economic conditions, along with certain limitations in the existing mechanisms for utilizing funds, indicates the need to further improve the public finance system. In this regard, increasing the socio-economic effectiveness of funds allocated to state and budgetary institutions highlights the importance of developing an active, flexible, and results-oriented financial management system within organizations.

From this perspective, financial management in higher education institutions serves as a means of achieving high economic efficiency through the optimization of budgetary resources. In essence, it represents a set of continuous technological processes that unite all links of public finance circulation into a single system: defining the financial-economic outlook, planning funds, ensuring the execution of the approved estimate, carrying out settlement transactions, compiling analytical reports, and conducting audit and control measures.

Specifically, at the level of higher education institutions, financial management requires the formulation of forward-looking financial plans through the mutual integration of continuous financial and economic operations, as well as strategic and operational budgeting. Moreover, this process encompasses a comprehensive set of measures aimed at providing the population with high-quality social and educational services that meet elevated standards, as well as at increasing the profitability and efficiency of the resources attracted.

Financial management in higher education institutions is an integral mechanism for rationally forming the available resources of an institution across various revenue sources, purposefully directing these investments into the asset structure, and managing the ultimate financial outcomes. Its core functional elements may be enumerated as follows: establishing a system of financial forecasting and planning based on current normative legal documents, ensuring the full execution of approved macro indicators throughout the financial year, conducting continuous monitoring of achieved efficiency, and maintaining the procedures of internal and external budget audit and control.

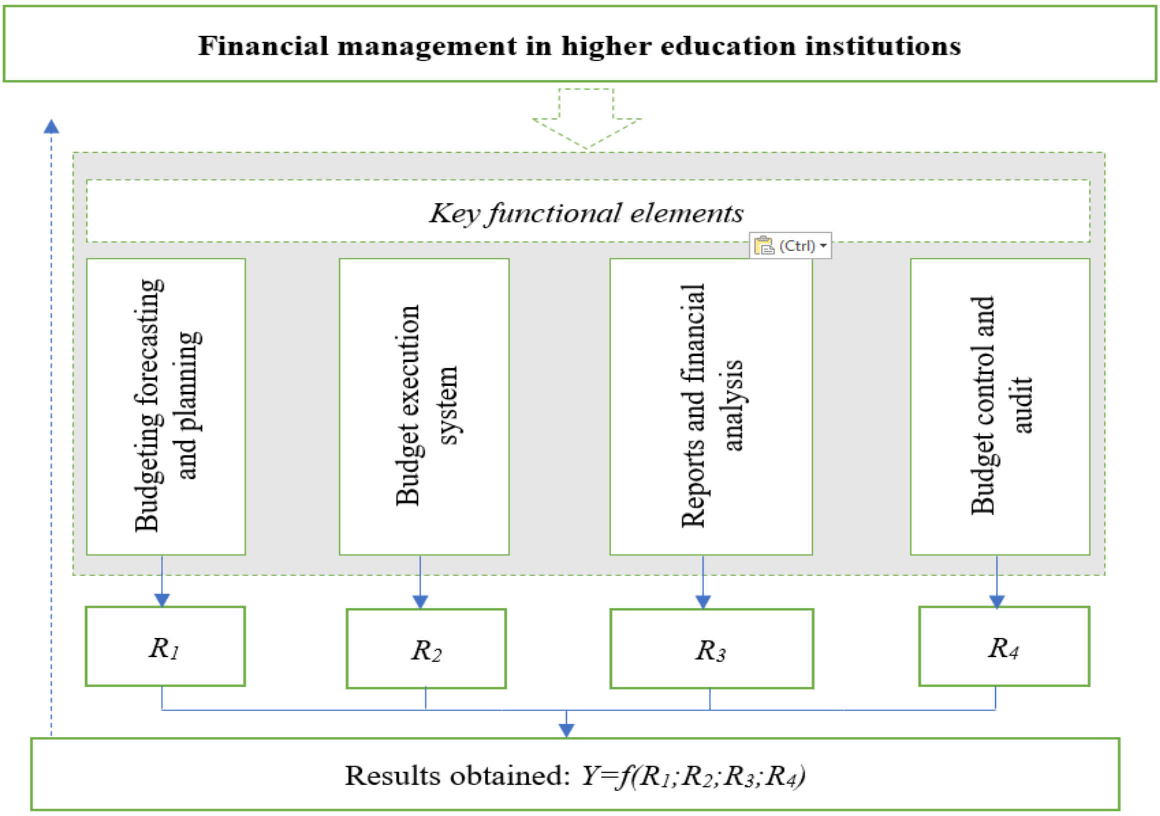

Figure 1. Functional Model of Financial Resource Management in Higher Education Institutions[1]

The logical model presented in Figure 1 demonstrates that the ultimate effectiveness of the financial management system in higher education institutions is directly dependent on the efficiency indicators (R1; R2; R3; R4) formed within its core structural components. In order to objectively measure these indicators, it is an objective necessity to introduce a unified assessment methodology. It is precisely the decomposition analysis carried out on the basis of this methodological approach that creates a solid foundation for developing optimal financial decisions by determining management profitability across financial responsibility and cost centers, as well as conducting in-depth diagnostics for each expenditure item.

In turn, within the internal financial architecture of higher education institutions possessing the right of financial autonomy, a process of delegating authority and responsibilities to relevant structures, such as cost responsibility centers, takes place. In such institutional conditions, making extensive use of the functional

1 Source: Developed by the author based on the literature review [1; 2; 3; 5].

capabilities of modern internal audit and internal compliance control institutions, rather than relying on the involvement of external supervisory bodies and higher-level inspection authorities in monitoring system effectiveness, constitutes the most appropriate and important factor in objectively evaluating the economy of individual expenditure items.

Researcher I.A. Azizova, who has investigated the practice of controlling budgetary expenditures, approaches this issue in a distinctive manner. Drawing upon her conclusions, the fundamental essence of strengthening the internal compliance and monitoring system at the level of state authorities is to demonstrate that the current financial management mechanism is functioning effectively. In other words, the management system, by its very nature of operation, must ensure the continuity of the budget cycle, the fulfillment of planned financial obligations, the targeted character of the resources being utilized, and the principles of budget discipline. As a result, a reliable financial environment emerges between the supervisory authorities, particularly the Ministry of Economy and Finance, and the administration of the organization, confirming that budgetary funds are being managed rationally [5].

The primary strategic objective of financial management in the higher education system, unlike enterprises operating in the commercial sector, is not to generate net profit, but rather to strictly maintain the balance between revenues and expenditures and to guarantee the financially stable growth of the institution. In achieving this strategic objective, three fundamental criteria emerge as the core indicators — the volume of revenues, the scale of expenditures, and the level of financial stability.

In turn, the financial balance between revenues and expenditures during the financial year is expressed in the following form:

$$X_1+X_2+X_3+X_4+X_5 = Y_1+Y_2+Y_3+Y_4+Y_5 \qquad (1)$$

Although this balance, based on the proportional equivalence of financial flows in value terms, serves as a fundamental criterion for ensuring the current financial stability of the system, it does not reflect the factors that guarantee the strategic sustainability of the institution under conditions of potential conjunctural changes and probable risks that may arise in the education services market in the future.

This can be explained by the current objective situation: against the backdrop of the extremely high demand formed in the national education market and the relatively low rate of youth enrollment in higher education, nearly all higher education institutions in Uzbekistan are in a position to fully meet the approved admission quotas and achieve one hundred percent occupancy of student places.

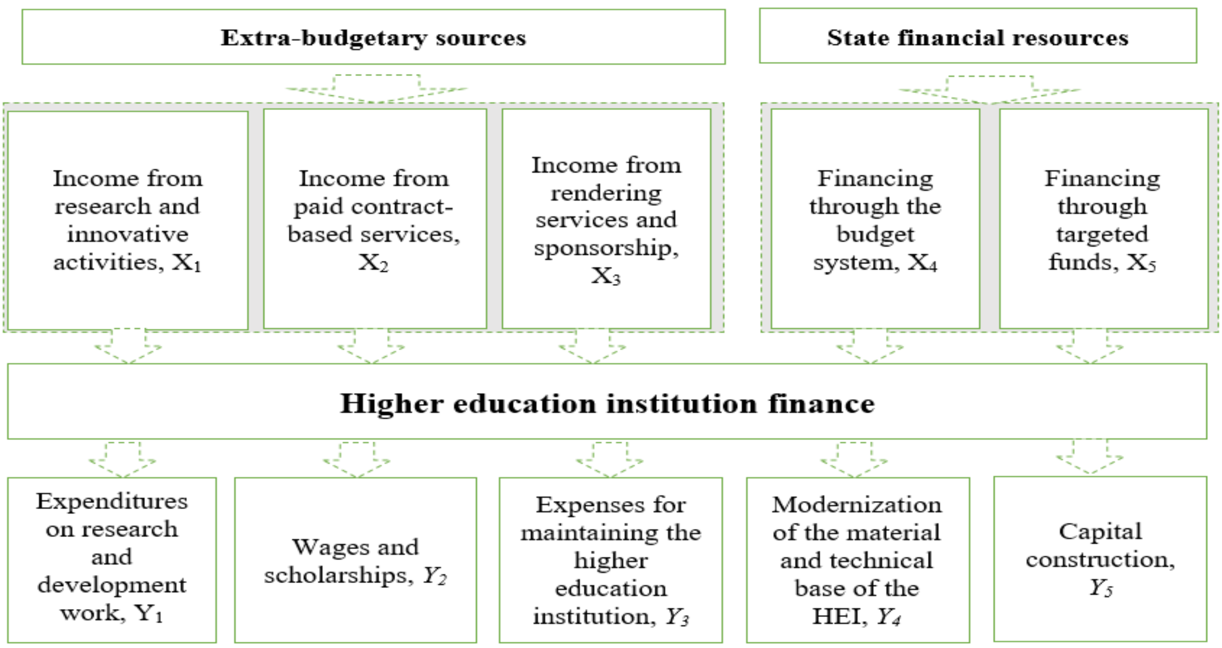

Figure 2. A model for optimizing the balance of financial revenues and expenditures aimed at ensuring the strategic competitiveness of higher education institutions[2].

2 Source: Developed by the author based on the literature review and revenue diversification approaches [4; 6; 7].

Nevertheless, the rapid expansion of the network of non-state higher education institutions in the education services market and the continuous growth of their coverage capacity are creating the need for state higher education institutions the task of developing a new strategic development vector that embodies the conceptual aspects of ensuring competitiveness.

In today's conditions of globalization, the priority direction that has been successfully tested in the practice of the world's leading universities — forming a source of financial revenues based on a high-value-added chain through enhancing the effectiveness of scientific and innovative research and commercializing them through their full implementation into practice — must occupy a central place in the prospective development strategy of state higher education institutions.

The balance of revenues and expenditures within the framework of model (1) presented above relies primarily on static indicators. That is, this approach expresses only the equivalence of the total aggregate sum of revenues and expenditures of higher education institutions, leaving aside the internal structural shifts in financial flows. In order to fill this methodological gap, it is proposed to introduce into practice a new, revised model that fully reflects the diversification of the revenue structure and, in particular, the dynamic growth trend of revenues formed through priority directions with high competitive potential.

$$\Delta X_1 \geq \Delta X_2 \geq \Delta X_3 \geq \Delta X_4 \geq \Delta X_5 \geq 100 \qquad (2)$$

According to the conceptual conditions of this model, it is required to guarantee that the growth rate of each constituent component of revenues does not fall below the baseline threshold of 100 percent within the annual growth trend of revenues. This situation, in turn, scientifically and practically confirms that stable dynamic efficiency and effectiveness have been achieved at each link of the above-mentioned priority activity directions.

Alongside this, it is necessary that the growth rate of revenues derived directly from scientific research and innovative developments ($\Delta X1$) constitutes the highest share in the annual growth dynamics of total financial revenues. It is worth emphasizing that the financial profitability of scientific and innovative activities over traditional educational services is guaranteed only in the proportion where this indicator is not lower than the growth index of funds received from paid contract-based services ($\Delta X2$), that is, at least equal to or higher than it.

Within the framework of a comprehensive management strategy aimed at ensuring the proportionality of incoming and outgoing financial flows and expanding the revenue base in higher education institutions, it is advisable to observe to the following fundamental principles:

First, forming alternative and reliable sources for covering expenditures based on the annual growth dynamics of financial revenues guarantees the long-term financial stability of the institution.

Second, under conditions of diversification of the range of services provided by higher education institutions, an increase in financial profitability is achieved through identifying the most competitive directions and introducing systematic mechanisms for managing education and innovations in relation to them.

As a result, the dependence of the institution's budget solely on revenues derived from traditional academic processes decreases, creating an opportunity to reduce institutional dependence on traditional and less flexible approaches. This situation, in turn, creates a solid foundation for further strengthening the strategic competitive positions of universities by enhancing their operational adaptability to dynamic transformations in the education services market in the future.

Within the architecture of higher education, the institution of financial services performs a distinctive foundational function. That is, it is responsible for assessing the existing economic potential of the institution, identifying reserves for maximizing financial performance, and systematically coordinating them. The fundamental essence of this process consists in defining a comprehensive base of strictly controlled parameters, analyzing the results achieved in practice, and making management decisions aimed at promptly adapting the values of target indicators to current and forecasted macroeconomic conditions.

The practice of managing financial operations in higher education institutions is primarily directed at identifying deviations from established norms at the earliest stages, as well as violations of the principles of legality, profitability, and rationality in the process of managing material assets, and this approach enables the timely implementation of corrective measures.

Ensuring the intended effectiveness of financial and economic activities and timely eliminating quantitative deviations from strategic plans constitute one of the central links of institutional governance. This comprehensive system encompasses diagnosing factors that negatively affect target indicators, identifying responsible units that have failed to comply with financial discipline requirements, compensating for damages incurred, and implementing preventive measures aimed at reducing future cases of financial irregularities. It is precisely these functions that transform financial services into the foundational institutional structure within the governance architecture of the institution, serving the purpose of making sound management decisions.

In order to correctly define the conceptual significance, strategic objectives, and operational tasks of financial management, universities rely on the methodology of a systems approach.

CONCLUSION AND SUGGESTIONS

The concept of “resource” in higher education institution finance is not singular, but rather carries a multi-layered meaning. It encompasses budgetary funds, contract payments, scientific grants, economic agreements, export of services, endowment and sponsorship revenues, income derived from the use of assets, and financing instruments such as credit and leasing. Since each type of source is subject to different constraints, reporting requirements, and risk profiles, a deep understanding of their socio-economic substance is necessary in order to establish effective mechanisms for managing resources.

In conditions of globalization, the most promising strategic direction for higher education institutions is the formation of financial revenue sources based on a high-value-added chain through enhancing the effectiveness of scientific and innovative research and commercializing them. This approach liberates institutions from dependence on revenues derived from traditional academic processes and increases their operational adaptability to dynamic transformations in the education services market.

In order to improve financial management in higher education institutions, it is a strategic necessity to balance the management of budgetary and extra-budgetary sources, diversify revenues, strengthen the internal control system, and develop income from scientific and innovative activities as a priority direction. Ensuring financial stability and competitiveness simultaneously is only possible through the synergistic interaction of these elements with one another.

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Proofreader: Xondamir Ismoilov

Layout and Designer: Oloviddin Sobir ugli

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