

# INNOVATION SCIENCE AND TECHNOLOGY



Scopus || Electronic journal specializing in Scopus

**ISSUE 3**

 Acceptance of papers **March, 2026**



**Acceptance of papers**

Published monthly



**Topics**

economics, technology, social sciences



**EDITOR-IN-CHIEF:**

Mirzaliyev Sanjar Makhmatjon ugli

**DEPUTY EDITOR-IN-CHIEF:**

Makhmudov Nosir Makhmudovich  
DSc., Prof., Academician

**DEPUTY EDITOR-IN-CHIEF:**

Ochilov Bobur Bakhtiyor ugli – Senior  
lecturer at TSUI

THE SCIENTIFIC-POPULAR ELECTRONIC  
JOURNAL **"INNOVATION SCIENCE AND  
TECHNOLOGY"** HAS BEEN REGISTERED  
UNDER THE NUMBER **C-5669633** BY THE  
AGENCY FOR INFORMATION AND MASS  
COMMUNICATIONS (AOKA) OF THE  
REPUBLIC OF UZBEKISTAN, EFFECTIVE  
FROM OCTOBER 9, 2024.

**CONTACTS**

Phone: **+998 50 737 87 88**

Website: <https://ist-journal.uz>

Email: [innovationist2025@gmail.com](mailto:innovationist2025@gmail.com)

The scientific electronic journal "Innovation Science and Technology" has been included in the list of scientific publications recommended for the publication of main scientific results of dissertations for the award of PhD and DSc degrees in economics and technical sciences, in accordance with the Resolution No. 370 of the Presidium of the Higher Attestation Commission of the Republic of Uzbekistan, dated May 8, 2025.

**Editorial board:**



**Sharipov Kongiratbay Avezimbetovich,**  
Doctor of Technical Sciences (DSc), Professor



**Abdurakhmanova Gulnora Kalandarovna,** Doctor of  
Economic Sciences (DSc), Professor



**Cham Tat Huei,**  
Doctor of Philosophy (PhD), Professor (Malaysia)



**Muhammad Imran Sadiq**  
Doctor of Philosophy in Economics (PhD), Professor,  
Malaysia



**Ahmed Aziz Ismail**  
Doctor of Technical Sciences (DSc),  
Professor (Egypt)



**Lee Chin**  
Doctor of Philosophy in Economics (PhD), (Malaysia)



**Asongu SImplice**  
Doctor of Philosophy in Economics (PhD), Cameroon



**Rui Dang**  
Doctor of Chemistry (DSc), Professor, China



**Zahoor Ahmed**  
Doctor of Philosophy in Economics (PhD), Turkey



**Shujaat Abbas**  
Doctor of Philosophy in Economics (PhD), Russia



**Tina A Coffelt**  
Doctor of Philosophy in Educational Sciences (PhD),  
USA



**Abdikarimova Dinara Rustamxanovna**  
Doctor of Economic Sciences (DSc), Professor

**Kurbonbekova Mohichehra Turobjonovna**  
Doctor of Economic Sciences (DSc), Professor

**Alimardonov Ilkhom Muzrabshokovich**  
Doctor of Economic Sciences (DSc), Professor



**Razakova Barno Sayfiyevna**  
Doctor of Philosophy in Economics (PhD)



**Khasanov Sarvar Ulugbek ugli**  
Doctor of Philosophy in Economics (PhD)



**Kholikova Rukhsora Sanjarovna**  
Associate Professor (PhD)

# CONTENTS

|  |     |
|--|-----|
| FINANCING OF SMALL BUSINESSES THROUGH INVESTMENT LOANS BY COMMERCIAL BANKS.....  | 15  |
| <b>Yangiboyev F.B.</b>   |     |
| INTEGRATION OF THE TRANSPORT SECTOR INTO THE GREEN ECONOMY AND IMPACT ON<br>SUSTAINABLE DEVELOPMENT: ECOLOGICAL TRANSFORMATION AND INNOVATIVE SOLUTIONS .....                          | 20  |
| <b>Narziyev Umidjon Bakhriylayevich</b>  |     |
| FOREIGN EXPERIENCE IN INCREASING THE INVESTMENT ACTIVITY OF JOINT-STOCK<br>COMPANIES .....   | 24  |
| <b>Begamov. S.X.</b>   |     |
| AN ENHANCED FINANCING MODEL FOR STARTUP PROJECTS IN HIGHER EDUCATION<br>INSTITUTIONS OF UZBEKISTAN .....   | 27  |
| <b>Kasimova Nargiza Sabitdjanovna</b>  |     |
| STRATEGIES FOR ENHANCING INVESTMENT POTENTIAL.....   | 32  |
| <b>Tillayeva Barno Ramizitdinovna</b>  |     |
| THE IMPORTANCE OF USING ARTIFICIAL INTELLIGENCE IN HOTEL MANAGEMENT.....   | 36  |
| <b>Husenova Madina Farkhodovna</b>   |     |
| MARKETPLACES AND ECONOMIC SECURITY IN UZBEKISTAN: RISKS AND REGULATION .....   | 42  |
| <b>Umarkhodjayeva Zaynabkhon Nodirkhonovna</b>   |     |
| TECHNOLOGICAL STRENGTH AND PROPERTIES OF METAL OF AUSTENITIC JOINTS DURING<br>WELDING WITH VARIOUS FLUXES.....   | 47  |
| <b>Khudoykulov Nurilla Zikirillaevich, Khudoyorov Sardor Sadullaevich</b>  |     |
| MODERN SYSTEMS OF PRODUCT COST CALCULATION: METHODOLOGICAL FOUNDATIONS AND<br>DIRECTIONS OF PRACTICAL TRANSFORMATION .....   | 51  |
| <b>Abdumalik Abdiraximovich Tulyaganov</b>   |     |
| SUPPORTING ECONOMIC EXPANSION AND MAXIMIZING PRODUCTION EFFICIENCY WITHIN<br>A MARKET ECONOMY.....   | 56  |
| <b>Aytmuratov Qutlimurat Jalgasovich</b>   |     |
| SUCCESS FACTORS OF DIFFERENTIATION STRATEGY IN A MARKET ECONOMY.....   | 62  |
| <b>Sodiqov Miraxror Abbos ugli</b>   |     |
| THE “MISSING MIDDLE” PROBLEM IN SOCIAL PROTECTION SYSTEMS AND MECHANISMS FOR<br>ADDRESSING IT .....  | 67  |
| <b>Farrukh Juraqulovich Bafoev</b>   |     |
| IMPROVING POPULATION INVESTMENT ACTIVITY THROUGH THE DEVELOPMENT OF BANK<br>BROKERAGE SERVICES AND FINANCIAL LITERACY IN FORMING A SECURITIES PORTFOLIO<br>IN THE KHOREZM REGION ..... | 72  |
| <b>Bakhtiyorov Khudaybergan Hamdam ugli</b>  |     |
| DEVELOPMENT OF THE SERVICE SECTOR AND ITS IMPACT ON POVERTY REDUCTION.....   | 79  |
| <b>Dauletmuratov Adilbay Mirzabaeovich</b>   |     |
| THE ROLE AND IMPORTANCE OF A SYNERGETIC APPROACH IN DEVELOPING THE MANAGEMENT<br>SKILLS OF SCHOOL DIRECTORS.....   | 84  |
| <b>Yusupova Dilnoza Fayzullayevna</b>  |     |
| REGIONAL INNOVATION DEVELOPMENT INDICATORS AND THEIR EVALUATION SYSTEM .....   | 89  |
| <b>Xamrayev Quvvat Iskandarovich</b>   |     |
| GADGETS AND VALUES: HOW DOES THE VIRTUAL WORLD IMPACT THE EDUCATION<br>OF YOUTH? .....   | 97  |
| <b>Makhmudova Sohiba Ravshan kizi, Mirzaliyev Sanjar Makhamatjon ugli</b>  |     |
| WAYS TO IMPROVE SERVICE QUALITY AND SAFETY IN THE HOSPITALITY INDUSTRY THROUGH<br>DIGITAL TECHNOLOGIES .....   | 101 |
| <b>Musayeva Shoirazimovna</b>  |     |
| DIRECTIONS FOR INCREASING HOUSEHOLD INCOMES BASED ON FOREIGN EXPERIENCE.....   | 104 |
| <b>Eshbaeva Shahnoza Faxriddinovna</b>   |     |

|  |     |
|--|-----|
| IMPROVING METHODS FOR DETECTING FRAUD CASES IN CURRENT ASSET AUDITS.....                           | 108 |
| <b>Mavlyanova Dilobar Makhkamovna</b>  |     |
| GLOBAL TRENDS IN WORLD MARKETS AND THEIR IMPACT ON THE DEVELOPMENT OF<br>INTERNATIONAL TRADE ..... | 113 |
| <b>Meliqulov Abduhalil Norinovich</b>  |     |
| THEORETICAL ASPECTS OF FORMING AND APPLYING THE INTEGRATION MECHANISM OF SMALL<br>BUSINESS .....   | 119 |
| <b>Rustambek Ibragimovich Israilov</b>   |     |
| THE IMPORTANCE OF USING PERFORMANCE INDICATORS IN IMPROVING ROAD MANAGEMENT<br>METHODS.....        | 125 |
| <b>Sirojiddin Yadgarov</b>   |     |
| WAYS TO IMPROVE BANKING EFFICIENCY IN THE CONDITIONS OF TRANSFORMATION.....                        | 131 |
| <b>Babakhanova Dildora Rustamovna</b>  |     |
| THE ROLE OF PROGRAM-BASED BUDGETING MECHANISMS IN ENSURING STATE FINANCIAL<br>SECURITY .....       | 137 |
| <b>Abduganiyev Uchkun Khabibulla ugli</b>  |     |

# THE ROLE OF PROGRAM-BASED BUDGETING MECHANISMS IN ENSURING STATE FINANCIAL SECURITY

**Abduganiyev Uchkun Khabibulla ugli**

PhD, Associate Professor Head of the Department  
Budget and Tax Research Institute under the  
Ministry of Economy and Finance of the Republic of Uzbekistan  
E-mail: [uchqunbek90994@gmail.com](mailto:uchqunbek90994@gmail.com)

**Abstract:** This article provides a theoretical and practical analysis of the role of program-based budgeting mechanisms in ensuring state financial security. The study examines the significance of results-oriented and program-based budgeting within the public finance management system, its role in managing fiscal risks, ensuring the efficient use of budget funds, and strengthening control over public expenditures. Additionally, using the case of Uzbekistan, the article analyzes the legal and regulatory framework for implementing the program-based budgeting system, as well as existing methodological and institutional challenges. Based on the research findings, scientifically-grounded proposals and recommendations have been developed to improve the target indicators of budget programs, strengthen their link to strategic development goals, enhance the monitoring and evaluation system, and expand the transparency of budget information.

**Key words:** program-based budgeting, results-oriented budgeting, public financial security, budget programs, fiscal risks, budget transparency, monitoring and evaluation.

## INTRODUCTION

In recent years, modernizing the public finance management system, ensuring the efficient use of budget funds, and strengthening financial security have become global priorities. Particularly in the context of limited fiscal resources, the need to link government spending with specific socio-economic outcomes has increased significantly. From this perspective, results-based budgeting and program-based budgeting are considered crucial institutional mechanisms capable of elevating public financial management to a qualitatively new level.

According to the scientific literature, transitioning from traditional expenditure estimates to the principle of “final results and efficiency” in the budget process enhances the effectiveness of public policy, increases budget transparency and accountability, and reduces corruption risks [1]. Many international studies have demonstrated that a results-oriented approach is an important tool for directing state resources toward priority objectives, strengthening executive discipline, and ensuring fiscal stability [2]. At the same time, program-based budgeting improves the clarity of budget information and expands public oversight by organizing government expenditures through targeted programs [3].

In recent years, within the framework of public finance reforms, Uzbekistan has been implementing systemic measures to introduce elements of results-based and program-based budgeting. In particular, planning expenditures based on budget programs, establishing performance indicators for each program, and strengthening monitoring and evaluation mechanisms are expected to increase the socio-economic return of public spending [4]. This process is especially important for maintaining macroeconomic stability, controlling the budget deficit, and reducing the risks associated with inefficient use of public funds.

However, practical experience shows that the introduction of results-oriented and program-based budgeting is not limited to regulatory and legal changes. This process requires sufficiently developed institutional capacity, high-quality data, an effective internal audit system, and a modern digital financial management infrastructure. Otherwise, there is a risk that performance indicators may become purely formal and that budget programs may not be adequately linked to real socio-economic outcomes.

The purpose of this article is to analyze, both theoretically and practically, the role of results-based and program budgeting mechanisms in ensuring financial security and to develop scientifically grounded proposals and recommendations for their improvement based on the experience of Uzbekistan.

The concept of state financial security encompasses the stability of the national financial system, the effective management of budget resources, the control of fiscal risks, and the timely fulfillment of the state's financial obligations. The scientific novelty of this research is as follows. First, the factors through which program budgeting mechanisms influence state financial security have been theoretically systematized. Second, the main methodological and institutional challenges arising in the implementation of the program budgeting system in Uzbekistan have been identified. Third, scientifically grounded proposals have been developed for evaluating the effectiveness of budget programs, improving the system of performance indicators, and enhancing monitoring and reporting mechanisms.

## LITERATURE REVIEW

Results-based budgeting is an approach in public financial management that prioritizes achievable outcomes over the volume of expenditures. In this model, budget funds are linked to specific target indicators, and the performance of government agencies is evaluated based on the criterion of "what result was achieved" rather than "how much was spent."

According to World Bank research, a results-based approach contributes to improving the quality of public services and strengthening fiscal discipline; however, its effectiveness largely depends on institutional capacity, data quality, and the development level of monitoring systems [5]. Researchers emphasize that the success of results-based budgeting is significantly influenced by the proper selection of measurable and policy-relevant indicators.

Program budgeting, in contrast, involves structuring government expenditures around programs aimed at achieving strategic objectives rather than organizing them by individual economic expenditure categories. Within this approach, specific tasks, expected outcomes, and funding limits are defined for each budget program. A special report by the World Bank notes that program budgeting enables the integration of budget planning with strategic management and facilitates the concentration of government spending on priority sectors [6].

In recent years, the concepts of results-based budgeting and program-based budgeting have been widely explored in academic literature. For instance, a thematic review by Gharib et al. analyzed more than 60 scientific articles and concluded that results-based budgeting is primarily associated with increased fiscal transparency, improved quality of public services, and enhanced efficiency in the use of public resources [9]. At the same time, the authors point out that the formalization of indicators and their weak connection with real policy decisions represent one of the major systemic challenges.

Empirical studies also confirm the positive impact of these mechanisms. Analyses based on the experiences of the United States, the United Kingdom, and Australia demonstrate that results-based budgeting strengthens fiscal discipline, improves operational efficiency, and enhances budget transparency [10]. Meanwhile, some scholars emphasize that although program-based budgeting plays an important role in achieving financial objectives, it should not function as an isolated tool but rather as an integral component of the broader public financial management system [11].

However, some academic literature also presents a critical perspective. Certain researchers argue that the expected outcomes of program-based budgeting are not always achieved due to organizational challenges, weak data integration, and insufficient internal control systems [12]. Studies focusing on local-level implementation also highlight the low quality of indicators and limited information exchange between government agencies as major obstacles [13].

Other scientific studies directly link program-targeted budgeting with the concept of financial security. Research based on the experience of Russia demonstrates that planning expenditures through programs reduces fiscal risks, strengthens parliamentary and public oversight, and contributes to enhancing state financial security [7].

Similarly, an analysis of the implementation of program-based budgeting in Georgia indicates that when monitoring and evaluation systems are insufficiently developed, program budgeting mechanisms may become largely formal in nature [8]. The authors particularly emphasize the importance of developing program-based budgeting in coordination with internal audit mechanisms and digital public financial management platforms.

In general, the literature review suggests that results-oriented and program-based budgeting influences financial security through several key channels:

- increasing the targeted orientation of government expenditures;
- enabling the early identification of fiscal risks;
- strengthening budget transparency and accountability;
- reducing the likelihood of corruption and inefficient spending.

These theoretical conclusions will be empirically examined in the following section using the case of Uzbekistan's public finance management practices.

## RESEARCH METHODOLOGY

The research employed methods of institutional analysis, comparative analysis, a systematic approach, and content analysis of regulatory legal acts. In addition, a comparative examination of international experience and national practice was conducted to evaluate the impact of program-based budgeting mechanisms on state financial security.

This methodological approach made it possible to identify the institutional characteristics of the program-based budgeting system and to provide a comprehensive assessment of its influence on the stability of public finances.

## ANALYSIS AND RESULTS

Program-based budgeting mechanisms are also essential for managing fiscal risks in public finance. In traditional budgeting models, expenditures are often planned according to sectoral or economic classifications, with insufficient attention given to their final outcomes. This may create fiscal risks such as inefficient allocation of budget resources, excessive financing of certain programs, or the diversion of funds to non-priority areas. In contrast, program-based budgeting enables the allocation of state resources in accordance with strategic priorities by linking budget expenditures to clearly defined goals and objectives. As a result, the efficiency of budget resource utilization increases, and the financial stability of the state is strengthened.

As part of reforms aimed at modernizing the public finance management system in Uzbekistan, elements of results-oriented and program-based budgeting are being introduced gradually. This process is currently being implemented within the framework of comprehensive reforms designed to modernize the public finance management system. The legal basis for these reforms is established by several regulatory and legal acts, among which the Budget Code, Presidential Decrees, Resolutions of the Cabinet of Ministers, and national development strategies play a particularly important role.

First and foremost, the Budget Code of the Republic of Uzbekistan establishes the general legal framework for the budget process. This document identifies effectiveness, efficiency, and the targeted use of budget resources as fundamental principles of public finance management. These provisions create a legal foundation for applying program-based budgeting principles in planning budget expenditures and evaluating their outcomes.

A key regulatory document for implementing program-based budgeting is the Regulation approved by Resolution No. 4 of the Cabinet of Ministers dated January 4, 2024. This regulation defines the procedures for the development, monitoring, and evaluation of the effectiveness of budget programs [4]. In practice, this legal framework standardizes the objectives, tasks, performance indicators, and reporting cycles of budget programs.

In addition, the priority objectives of the “Uzbekistan – 2030” Strategy reinforce the principles of effectiveness and accountability in public administration, thereby creating a strategic context for introducing results-oriented approaches in the budget process [18]. Official information from the Ministry of Economy and Finance consistently emphasizes the need to expand the application of program-based budgeting [17]. In practical terms, program-based budgeting involves grouping expenditures by sectoral objectives, defining specific goals and indicators for each program, and allocating resources to achieve measurable results. The key advantage of this approach is that it makes the distribution of budget resources transparent and verifiable through the logical chain of “program – task – indicator”.

In Uzbekistan, the “Open Budget” portal functions as an important institutional instrument for strengthening transparency and public oversight. As an official digital platform, the portal provides open access to budget data, participatory budgeting processes, and information regarding the implementation of certain projects [15]. The transparent presentation of the stages of the “Participatory Budget” process—submission, moderation, promotion, and voting—also contributes to strengthening public accountability [16]. Furthermore, the availability of information regarding the performance of ministries on the portal represents an additional institutional element that enhances transparency [19].

At the same time, an analysis of the current regulatory framework indicates that although the legal foundations for implementing program-based budgeting have been established, its methodological and institutional mechanisms still require further improvement. In particular, the development of target indicators for budget programs, strengthening their connection with strategic objectives, creating independent monitoring and evaluation mechanisms, and orienting reporting systems toward measurable results are essential for improving the effectiveness of these reforms.

One of the key issues is the insufficient development of the methodology for defining target indicators in budget programs. Although the regulation specifies the types, descriptions, and projected values of indicators, clear methodological standards for determining their hierarchy and their influence on policy outcomes remain

limited. In practice, this often leads to situations in which indicators reflect the volume of completed activities or the number of services delivered rather than the real socio-economic impact of government expenditures. Consequently, the core principle of program-based budgeting—linking state resources to measurable outcomes—is not fully realized.

Another important issue is the weak institutional linkage between budget programs and strategic development objectives. Although the regulation states that budget programs should be based on national strategies, sectoral concepts, and sustainable development goals, the causal relationship between strategies, state programs, and budget programs is not always clearly articulated in practice. In some cases, budget programs simply reproduce the tasks outlined in strategic documents without clearly demonstrating how these tasks contribute to specific policy outcomes.

A third challenge relates to the institutional limitations of the monitoring and evaluation system. According to the current regulation, the implementation of budget programs is mainly assessed by the internal audit services of spending units. However, this model may limit the institutional independence of the evaluation process and sometimes reduce it to a formal reporting procedure. Moreover, the absence of a unified rating or scoring methodology for evaluating budget programs, as well as the lack of clear mechanisms linking evaluation results to future budget allocations, weakens the effectiveness of this system.

Another issue concerns reporting and transparency mechanisms, which remain largely focused on compliance with administrative procedures rather than on evaluating real results. Although the regulation establishes procedures for preparing quarterly and annual reports on budget programs and publishing them through the “Open Budget” portal, existing reporting formats primarily emphasize financial execution and the completion of indicators. As a result, they provide limited insight into the economic efficiency of government expenditures and the relationship between resources used and results achieved.

These issues indicate that although the organizational and legal foundations for the program-based budgeting system have been established, its methodological and institutional components still require further development. In particular, improving the methodology for defining performance indicators, strengthening the connection between budget programs and strategic objectives, establishing independent monitoring and evaluation mechanisms, and orienting reporting systems toward measurable outcomes will be crucial for enhancing the effectiveness of public finance management.

In international practice, program-based and results-oriented budgeting is widely used as an important institutional instrument of public financial management. In particular, the member countries of the Organisation for Economic Co-operation and Development (OECD) have developed integrated budgeting systems based on the logical chain of “resources – activities – results – impact”. Within such systems, budget programs are viewed not only as expenditure plans but also as management tools for implementing public policy.

For example, in South Korea the program budgeting system is closely integrated with the strategic planning framework of public administration. Each budget program is directly linked to medium- and long-term national development strategies, and the system of indicators focuses on measuring policy outcomes. Moreover, independent evaluation mechanisms are used to assess the effectiveness of budget programs, and the results of these evaluations directly influence budget allocations in subsequent years.

The experience of Georgia also demonstrates the importance of institutional and methodological mechanisms in implementing program-based budgeting. In Georgia, the monitoring and evaluation system for budget programs has been developed gradually, with particular attention given to improving the quality of indicators and strengthening data systems. At the same time, information on the implementation of budget programs is publicly disclosed through open information platforms, thereby expanding mechanisms of civic oversight.

An analysis of international experience shows that the effectiveness of program-based budgeting depends not only on the existence of a regulatory framework but also on the development of methodological and institutional mechanisms. In particular, the quality of performance indicators, the existence of independent monitoring and evaluation institutions, transparency of data, and the linkage between budget decisions and measurable outcomes are the key factors that determine the effectiveness of this system.

Furthermore, program-based budgeting plays an important role in reducing corruption risks and preventing inefficient use of public funds. Planning expenditures based on programs and performance indicators strengthens oversight of government activities. The existence of clearly defined objectives, measurable indicators, and reporting mechanisms increases the transparency of public financial management and expands the information base necessary for parliamentary and public oversight. This, in turn, represents an important institutional factor in ensuring state financial security.

From this perspective, incorporating international experience into the development of the program-based budgeting system in Uzbekistan is of great importance. In particular, improving the methodology for defining performance indicators, strengthening the connection between budget programs and strategic development

documents, introducing independent monitoring and evaluation mechanisms, and expanding the transparency of budget data will significantly contribute to improving the efficiency of public finance management.

**Table 1. The Impact of Program-Based Budgeting Mechanisms on State Financial Security<sup>1</sup>**

| No. | Program-Based Budgeting Mechanism                | Area of Impact on Financial Security           | Expected Outcome                           |
|-----|--|--|--|
| 1   | Planning budget expenditures based on programs   | Directing state resources to priority sectors  | Efficient use of budget funds              |
| 2   | Introducing a system of target indicators        | Evaluating the effectiveness of state programs | Increasing the efficiency of public policy |
| 3   | Monitoring the implementation of budget programs | Early identification of fiscal risks           | Strengthening budgetary discipline         |
| 4   | Internal audit and evaluation mechanisms         | Control over the use of public funds           | Reducing inefficient expenditures          |
| 5   | Openness of budget information                   | Public and parliamentary oversight             | Reducing corruption risks                  |

The information presented in Table 1 indicates that program-based budgeting mechanisms influence state financial security through several institutional channels. In particular, planning budget expenditures based on programs facilitates the rational allocation of public resources to priority areas, while a system of target indicators enables the evaluation of the effectiveness of state programs and the performance of government institutions.

At the same time, mechanisms for monitoring and evaluating the implementation of budget programs contribute to the early identification of fiscal risks and strengthen institutional control over the use of public funds. Furthermore, the openness of budget information enhances transparency and accountability in public finance management by expanding both public and parliamentary oversight.

## CONCLUSION AND SUGGESTIONS

The analysis indicates the need to improve several methodological and institutional aspects of the program-based budgeting system to ensure its full and effective functioning in practice. In particular, the underdeveloped methodology for defining target indicators, the formal nature of the link between budget programs and strategic development goals, the institutional weakness of monitoring and evaluation mechanisms, and a reporting system primarily focused on administrative compliance are factors that limit the system's overall effectiveness.

An examination of international experience demonstrates that for a program-based budgeting system to operate effectively, budget programs must be supported by indicators that accurately reflect public policy outcomes. Moreover, monitoring and evaluation processes should be implemented through independent institutional mechanisms, and the results of these evaluations should be integrated into the process of reallocating budget resources. From this perspective, several proposals can be advanced to further improve the program-based budgeting system in Uzbekistan.

First, it is advisable to develop a unified methodology for formulating target indicators for budget programs. Such a methodology should establish a hierarchical structure of indicators—direct outputs, final outcomes, and impact indicators—define baseline metrics, and standardize calculation methods. This approach would enable a more accurate assessment of the relationship between government expenditures and the results achieved.

Second, it is necessary to strengthen the institutional linkage between budget programs and strategic development documents. In this regard, it is recommended to introduce an indicator system that clearly demonstrates how each budget program contributes to the implementation of national development strategies and sustainable development goals. This would ensure that public resources are allocated more effectively to priority areas.

Third, improving the system for evaluating the implementation of budget programs requires the development of independent monitoring and evaluation mechanisms. In particular, expanding the participation of external

<sup>1</sup> Developed by the author

auditors, research institutions, and civil society organizations in assessing the effectiveness of budget programs would contribute to enhancing the objectivity and credibility of the evaluation process.

Fourth, the reporting system for budget programs should be reoriented toward performance and results. It is therefore advisable to introduce reporting indicators that reflect not only the utilization of funds or the achievement of planned targets but also the efficiency relationship between resources expended and outcomes achieved.

Fifth, increasing the transparency of budget data and strengthening public oversight are essential for enhancing the effectiveness of the program-based budgeting system. To achieve this, it is necessary to publish data on the implementation of budget programs in open data formats, expand opportunities for independent analysis, and develop mechanisms for public discussion and civic engagement.

#### List of used literature

1. Allen, R., Tommasi, D. *Managing Public Expenditure: A Reference Book for Transition Countries*. Paris: OECD Publishing, 2001. 512 p. Available at: <https://www.oecd.org/gov/budgeting/Managing-Public-Expenditure.pdf>
2. Robinson, M. *Performance Budgeting: Linking Funding and Results*. London: Palgrave Macmillan, 2007. 280 p.
3. World Bank. *Public Financial Management and Performance Budgeting*. Washington, DC: World Bank, 2018. Available at: <https://www.worldbank.org/en/topic/publicfinance>
4. Cabinet of Ministers of the Republic of Uzbekistan. Resolution "On Approval of the Regulation on the Procedure for the Development, Implementation, and Evaluation of the Effectiveness of Budget Programs." January 4, 2024, No. 4. Available at: <https://lex.uz>
5. World Bank. *Program Budgeting in Practice: International Experience and Lessons*. Washington, DC: World Bank, 2016. Available at: <https://documents.worldbank.org>
6. Diamond, J. *From Program to Performance Budgeting: The Challenge for Emerging Economies*. IMF Working Paper. Washington, DC: International Monetary Fund, 2005. Available at: <https://www.imf.org/en/Publications/WP>
7. Baranov, A. V., Zaytsev, A. V. *Program-Target Budgeting and the Financial Security of the State*. Moscow: Finansy i kredit, 2019.
8. World Bank. *Georgia Public Financial Management Reform Program*. Washington, DC: World Bank, 2014. Available at: <https://documents.worldbank.org>
9. Gharib, A., et al. *Performance-Based Budgeting: A Systematic Literature Review*. *Journal of Public Budgeting, Accounting & Financial Management*, 2021. Available at: <https://doi.org/10.1108/JPBAFM>
10. OECD. *Performance Budgeting in OECD Countries*. Paris: OECD Publishing, 2019. Available at: <https://www.oecd.org/gov/budgeting/performance-budgeting.htm>
11. OECD. *Budgeting for Results and Fiscal Transparency*. Paris: OECD Publishing, 2018. Available at: <https://www.oecd.org/gov/budgeting>
12. Schick, A. *Getting Performance Budgeting to Perform*. *OECD Journal on Budgeting*, 2013. Available at: <https://doi.org/10.1787/budget>
13. World Bank. *Performance Budgeting and Public Sector Governance*. Washington, DC: World Bank, 2017. Available at: <https://www.worldbank.org>
14. *Budget Code of the Republic of Uzbekistan*. Available at: <https://lex.uz/docs/2304138>
15. *Open Budget Portal*. Available at: <https://openbudget.uz>
16. Ministry of Economy and Finance of the Republic of Uzbekistan. *Official data on the state budget and budget transparency*. Available at: <https://imv.uz>
17. Ministry of Economy and Finance of the Republic of Uzbekistan. *Information on modernization of the public finance management system*. Available at: <https://imv.uz>
18. International Budget Partnership. *Open Budget Survey Methodology*. Washington, DC, 2023. Available at: <https://www.internationalbudget.org/open-budget-survey>

**Proofreader:** Zokir ALIBEKOV

**Layout and Designer:** Oloviddin Sobir ugli

---

## 2026. № 3

---

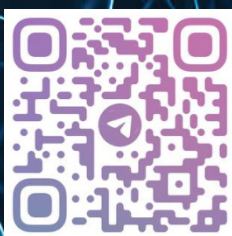
© When materials are reproduced, the INNOVATION SCIENCE AND TECHNOLOGY journal must be cited as the source. Authors are responsible for the accuracy of the information in materials and advertisements published in the journal. Editorial opinions may not always align with those of the authors. Submitted materials will not be returned to the editorial office.

To publish articles in this journal, you may submit articles, advertisements, stories, and other creative materials through the following links. Materials and advertisements are published on a paid basis.

You may subscribe to the journal at any time using the following details. Once subscribed, please send a screenshot or photo of your payment confirmation to our Telegram page @iqtisodiyot\_77. Based on this, we will send the latest issue of the journal to your address each month.

“The journal “INNOVATION SCIENCE AND TECHNOLOGY” has been registered by the Agency for Information and Mass Communications under the Administration of the President of the Republic of Uzbekistan from 09.10.2024 under the registration number №390637. License number: C-5669633. PNFL: 30407832680027

**Our address:** Tashkent city, Yunusobod district, 19th block,  
House 17.



**Acceptance of articles**

Published every monthly



**Directions**

Social, economic, political, technological, scientific

 Scopus || Scientific electronic journal specializing in Scopus

**CERTIFICATE NUMBER: №390637**

**ORDER NUMBER ACCORDING TO THE LICENSE REGISTER: C-5669633**

**CONTACT:**

 Contact us  
**+998 50 737 87 88**

 Telegram channel  
**t.me/scopus\_IST2100**

 Journal official website  
**<https://ist-journal.uz/index.php/IST>**