

INNOVATION SCIENCE AND TECHNOLOGY

ISSUE 6, PART 1 / JUNE 2026

 Acceptance of papers



**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

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 Sayfieva
Doctor of Philosophy in Economics (PhD)



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



Kholikova Rukhsora Sanjarovna
Associate Professor (PhD)

CONTENTS

BUDGETING BASED ON THE BALANCED SCORECARD SYSTEM IN STRATEGIC MANAGEMENT ACCOUNTING.....	8
Pardaeva Shakhnoza Abdinabievna	
TURIZM SOHASIDA TARJIMA NAZARIYASINING O'RNI	13
Bahronova Charos Mirabbos qizi	
THE ROLE OF ESG PRINCIPLES AND DIGITAL TECHNOLOGIES IN THE DEVELOPMENT OF CORPORATE SOCIAL MANAGEMENT SYSTEMS	16
Shokhrukh Abdisalimovich Muratkosimov	
A COMPARATIVE SEMANTIC FIELD ANALYSIS OF "BENEFIT" ACROSS ENGLISH AND UZBEK CULTURES	23
Mohira Husanovna Divanova	
ROSSIYA TIJORAT BANKLARIDA DEPOZIT OPERATSIYALARINI RIVOJLANTIRISHNING O'ZIGA XOS JIHATLARI	30
Rahimov Akmal Matyaqubovich	
USE OF ARTIFICIAL INTELLIGENCE TECHNOLOGIES AGAINST CYBER THREATS IN THE PUBLIC SECTOR.....	37
Nuratdinov Xushnid Begzadovich, Erejepov Kewlimjay Kaymatdinovich	
PUL-KREDIT SIYOSATI INSTRUMENTLARIDAN FOYDALANISH AMALIYOTINI TAKOMILLASHTIRISH ..	42
A.A. Ismailov	
"O'ZBEKISTON TEMIR YO'LLARI" AJNING AMALIY IQTISODIY HOLATI TAHLILI VA OPSIONLARNI ANIQLASH	48
Bobojonova Zarnigor Shokirovna	
COMPARATIVE ANALYSIS OF DEEP LEARNING ALGORITHMS FOR AUTOMATED SKIN DISEASE DIAGNOSIS FROM DERMOSCOPIC IMAGES.....	56
Nazirova Elmira Shodmonovna, Abdusalomova Shokhista Boboyor qizi	
STRATEGY FOR THE DEVELOPMENT OF THE FINANCIAL MARKET OF UZBEKISTAN IN THE CONTEXT OF DIGITAL AND GREEN TRANSFORMATION	61
Muftaydinov Mansur Kiyomidinovich	
TOURISM POTENTIAL OF UZBEKISTAN AND FINANCIAL FACTORS FOR ITS DEVELOPMENT	68
Bau Long	
CASH FLOWS OF "TERRITORIAL ELECTRIC NETWORKS" JSC: COMPREHENSIVE ACCOUNTING ANALYSIS AND METHODOLOGICAL APPROACHES TO IMPROVEMENT.....	75
Djuraev Davlat Djonibekovich	
MONETARY POLICY INSTRUMENTS.....	78
A.A. Ismailov	
ECONOMIC EFFICIENCY OF IMPLEMENTING INNOVATIVE TECHNOLOGIES IN THE SERVICE SECTOR OF REGIONS	83
Abdikayumov Bekzod Turdiniyozovich	
KNOWLEDGE STRATEGY AND ITS SYSTEM OF INDICATORS IN STRATEGIC MANAGEMENT ACCOUNTING.....	89
Pardaeva Shakhnoza Abdinabievna, Pardaeva Zulfizar Alimovna	
ANALYSIS OF THE REGIONAL DYNAMICS AND STRUCTURAL CHARACTERISTICS OF LABOR MIGRATION	95
Mukhtorbek Rahimboyev, Alibek Normurodov	
SUN'IY INTELLEKT ASOSIDA KREDIT RISKLARNI BAHOLOVCHI TIZIMLARNI ISHLAB CHIQISH. MIJOZ SCORE MODEL VA QARORLARNI OPTIMALLASHTIRISH	104
Olimova Mukhlisa Vohidjon qizi	
PUBLIC-PRIVATE PARTNERSHIP IN ESG IMPLEMENTATION: OPPORTUNITIES AND CHALLENGES FOR SUSTAINABLE DEVELOPMENT	111
Khusenova Mekhrangiz	

FORMATION OF MEDICAL TOURISM CLUSTERS IN THE REGION	115
Yusupova Mehribon O'ktamovna	
DIRECTIONS FOR IMPROVING THE INTEGRATION OF SCADA AND ERP SYSTEMS IN OIL AND GAS INDUSTRY ENTERPRISES	120
Abdullaev Munis Kurbonovich	
ANALYSIS OF THE EXPERIENCE OF FOREIGN COUNTRIES IN IMPLEMENTING GREEN PUBLIC PROCUREMENT AND LESSONS FOR UZBEKISTAN.....	125
Ruzimurodova Charos Ural qizi	
AGROTECHNICAL AND INNOVATIVE STRATEGIES FOR ENHANCING GRAIN PRODUCTION EFFICIENCY	129
Turayeva Gulizahro	
MINERALOGICAL OCCURRENCE OF RARE METALS IN THE INGICHKA DEPOSIT AND DEVELOPMENT OF TUNGSTEN EXTRACTION TECHNOLOGY	133
Shodiyev Abbos, Dononov Jasur, Safarov Gulomjon	
STRATEGIC DIRECTIONS OF PUBLIC-PRIVATE PARTNERSHIP COOPERATION IN THE GREEN ECONOMY OF UZBEKISTAN	140
Zukhra Bakhramovna Abdikarimova	
TIME MANAGEMENT IN THE CRAFT ECONOMY: STRATEGIES FOR OPTIMIZING THE TIME RESOURCES OF INDIVIDUAL PRODUCERS	148
Feruza Nazrillaevna Israilova	
DEVELOPMENT STAGES OF THE GREEN ECONOMY IN THE CONTEXT OF GLOBAL SUSTAINABILITY GOALS	154
Muminova Mokhchekhra	
FEATURES AND FACTORS OF WOMEN'S ENTREPRENEURSHIP DEVELOPMENT IN THE DIGITAL ECONOMY.....	160
Ibodullayeva Malohat Sirojiddin qizi	
MECHANISMS FOR POVERTY REDUCTION THROUGH THE DEVELOPMENT OF SMALL BUSINESS AND FAMILY ENTREPRENEURSHIP IN THE SERVICE SECTOR.....	165
Dauletmuratov Adilbay Mirzabovich	
IMPROVING THE METHODOLOGY OF ENVIRONMENTAL AUDITING AT ENTERPRISES BASED ON A RISK-ORIENTED APPROACH AND DIGITAL EVIDENCE	171
Abdullayev Khurshidjon Nazrullo o'g'li, Khurshidjon Abdullayev	
INTEGRATION MECHANISMS OF DIGITAL ECONOMY TECHNOLOGIES INTO REGIONAL GOVERNANCE SYSTEMS	176
Kurbanova Malika Ahmad kizi	
DEVELOPMENT OF A LOGICAL-LINGUISTIC MODEL OF THE KOREAN NOUN CATEGORY AND CREATION OF A PREFIX AND AFFIX DATABASE.....	181
Yendirboyeva Zumrad Zohidjon qizi	
THEORETICAL AND INSTITUTIONAL FOUNDATIONS OF MANAGING STATE SHARES IN BUSINESS ENTITIES	186
Akmaljon Valijonov	
ENSURING OBJECT SECURITY AND ANALYZING INFORMATION SECURITY BASED ON NEURAL NETWORKS.....	190
Babayazov Saidbek Po'latovich, Sultamuratova Dilnoza Gulmurotovna	
FUNDAMENTAL METHODS FOR IDENTIFYING AI-GENERATED DATA IN ACADEMIC AND ONLINE PUBLICATIONS USING MACHINE LEARNING AND NLP MODELS.....	196
Abdullaev Munis Kurbonovich, Kungratov Ilmurod Kuzibay ugli	
QUALITY ASSURANCE OF NON-AUTOCLAVED AERATED CONCRETE WITH THE ADDITION OF CMC (CARBOXYMETHYL CELLULOSE)	204
Pulatova D.G., Akhundjanov K.A.	
INTEGRATION MECHANISMS OF DIGITAL ECONOMY TECHNOLOGIES INTO REGIONAL GOVERNANCE SYSTEMS	210
Kurbanova Malika Ahmad kizi	

IMPROVING TAX ADMINISTRATION IN UZBEKISTAN AND ITS SOLUTIONS	215
Shamsiyev O'ktam Sayfitdinovich	
ASSESSING THE SOURCES AND QUALITY OF REGIONAL ECONOMIC GROWTH USING THE SOLOW MODEL.....	222
Turaev Bakhtiyor Ergashevich	
THEORETICAL AND METHODOLOGICAL FOUNDATIONS OF BANKING SYSTEM DIGITALIZATION	228
Suyunov Feruz, Ergashov Firdavs, Norqulov Habibullo	
HARDWARE-AWARE PERFORMANCE OPTIMIZATION OF YOLOV8 FOR REAL-TIME APPLICATIONS: GPU ACCELERATION WITH TENSORRT AND AN ANALYTICAL FPGA COMPARISON.....	232
Ulugbek Tursunaliyev, Bakhromjon Tulkinov	
DEVELOPMENT OF SPATIAL INFORMATION MODELS OF TERRITORIAL DEVELOPMENT TAKING INTO ACCOUNT ENVIRONMENTAL FACTORS (ON THE EXAMPLE OF THE REPUBLIC OF KARAKALPAKSTAN AND THE ARAL REGION)	241
Reymova Gulmira Polatovna	
LEADERSHIP STYLES AND QUALITY ASSURANCE CULTURE IN UNIVERSITIES.....	248
Urinov Bobur Nasilloevich	
SOCIO-ECONOMIC MECHANISMS FOR ENHANCING THE EFFECTIVENESS OF SCIENTIFIC RESEARCH AND INCENTIVE SYSTEMS IN THE AGRICULTURAL SECTOR.....	256
Zafar Ibragimovich Xakimov	
SOCIOLINGUISTIC FEATURES OF NEGATIVE AESTHETIC EVALUATION UNITS DENOTING PHYSICAL APPEARANCE IN ENGLISH AND UZBEK.....	260
Qalandarova Shaxzoda Qurbonboy qizi	
REMITTANCE INFLOWS AND THE SUSTAINABILITY OF ECONOMIC GROWTH: A TIME-SERIES ANALYSIS FOR UZBEKISTAN.....	265
O. B. Gimranova	
FORECAST INDICATORS, PROSPECTS, AND OUTCOMES OF DEVELOPING THE MECHANICAL ENGINEERING INDUSTRY THROUGH GREEN INVESTMENTS.....	271
Xursandov Komiljon Maxmatkulovich	
FEATURES AND FACTORS OF WOMEN'S ENTREPRENEURSHIP DEVELOPMENT IN THE DIGITAL ECONOMY.....	276
Ibodullayeva Malohat Sirojiddin qizi	
FACTORS INFLUENCING TAX REVENUE EFFICIENCY IN UZBEKISTAN IN THE CONTEXT OF SUSTAINABLE DEVELOPMENT	282
Jurayev Xusan Atamuratovich	
THE DIGITAL GASTRONOME: HOW TECHNOLOGY CONNECTS TOURISTS, RESTAURANTS, AND DIGITAL PLATFORMS	286
Freshta Qayoumi	
THE REPRESENTATION OF RESTRICTED LEXICON IN FRENCH LITERARY WORKS	290
Gulnoz Akhmedova	
RESEARCH ON THE TRANSMISSION MECHANISMS AND IMPLEMENTATION PATHS OF SHANDONG PROVINCE'S "SILVER ECONOMY" DEVELOPMENT EXPERIENCE IN THE FERGANA REGION	294
Zhang Zhe	
APPLICATION OF NET PRESENT VALUE ANALYSIS TO SHORT-TERM PERSONAL FINANCIAL DECISIONS	299
Akhunova Elena Anvarovna	
ECONOMIC OPPORTUNITIES FOR INCREASING EMPLOYMENT THROUGH THE DEVELOPMENT OF SMALL BUSINESS ENTITIES IN KHOREZM REGION	307
Azadova Gulnoza Sardorbekovna	
DEVELOPMENT TRENDS AND INSTITUTIONAL FEATURES OF THE STOCK MARKET IN THE REPUBLIC OF UZBEKISTAN	313
Nargiza E. Jiyanova, Diana D. Qurbaniyazova	
MODELING AND FORECASTING THE SCIENTIFIC PUBLISHING ACTIVITY OF HIGHER EDUCATION INSTITUTIONS (A CASE STUDY OF SCOPUS DATA)	321
Ozoda B. Sakieva	

YELLOW TOURISM: CONCEPTUAL CONTOURS, SPECTATORIAL LOGICS, AND THE POLITICS OF JOYFUL MOBILITY	326
Samiev Siroj, Ochilova Guli	
SHAKESPEARE'S CREATIVE METHOD: ADAPTATION, COLLABORATION, AND THEATRICAL REFINEMENT	334
Mirzakhidova Nozima Ulugbek kizi	
THE IMPACT OF TOURISM ON UNESCO SITES: THE CASE OF SAMARKAND	338
Samiev Siroj, Kakhramanova Maftuna	
MODERN METHODS FOR ASSESSING ECONOMIC EFFICIENCY UNDER CONDITIONS OF DIGITAL TRANSFORMATION	344
Meyliyev Farrux Ikrom o'g'li	
INTEGRATION OF ESG PRINCIPLES INTO THE CORPORATE GOVERNANCE SYSTEM OF STATE-OWNED ENTERPRISES IN UZBEKISTAN: KEY BARRIERS AND PRACTICAL SOLUTIONS.....	349
Jumadullaeva Durdona Shukhrat qizi	
COMPARATIVE ADVANTAGES OF LOCAL NATURAL AND ECONOMIC POTENTIAL AND THEIR EFFECTIVE USE UNDER CLIMATE CHANGE CONDITIONS	357
Madenova Elmira Nizamatdinovna	
IDENTIFICATION OF FACTORS INFLUENCING RETAIL SALES	362
Markova Mariya Stanislavovna, Pooja	
APPLICATION OF MARKETING APPROACHES AND PRINCIPLES IN THE EDUCATION SYSTEM	377
Musayeva Shoirazimovna	
FORECAST INDICATORS OF GROSS REVENUE IN THE PRIVATE HIGHER EDUCATION SECTOR FOR 2027-2030	382
Rahimov Sardor Uralovich	
OPTIMIZATION OF WASTE ROCK PLACEMENT SCHEMES FROM A MINING PERSPECTIVE IN THE DEVELOPMENT OF TITANOMAGNETITE DEPOSITS	386
Ibrohimov Dilshodbek Norimbat oglu	
ARTIFICIAL INTELLIGENCE AS A DRIVER OF BANKING SERVICES DEVELOPMENT: MODERN APPROACHES, OPPORTUNITIES, AND CHALLENGES	394
Mamutova Aygul Kalmurzaevna	
DIGITAL TRANSFORMATION OF UZBEKISTAN'S ARCHITECTURAL INDUSTRY: THE ROLE OF BIM, ARTIFICIAL INTELLIGENCE AND DIGITAL TWIN TECHNOLOGIES	402
Abdullaeva Sitorabonu Xasanjon kizi	
CRITERIA FOR ASSESSING THE QUALITY OF THE AUDIT OF COMMERCIAL BANKS' FINANCIAL STATEMENTS AND THE FORMATION OF KEY AUDIT MATTERS (ISA 701)	409
Ibragimov Nodirbek Baxodir o'g'li	
CRITERIA FOR ASSESSING THE SUSTAINABLE DEVELOPMENT OF THE MEDICAL SERVICES MARKET	416
Abdumalikov Shokhjahan Jaloliddin ugli	
PANEL GMM ANALYSIS OF THE IMPACT OF FACTORS ON FISCAL DEFICIT IN CENTRAL ASIA AND THE CAUCASUS COUNTRIES	421
Zokirjonov Muhammadsodiq Ravshanbek ugli	
ANALYSIS OF THE DYNAMICS OF INTEREST RATES ON DEPOSITS IN COMMERCIAL BANKS OF UZBEKISTAN	433
Shodiyev Odiljon Salim ugli	
INDUSTRIAL CLUSTER FORMATION AND ORGANIZATIONAL-ECONOMIC MECHANISMS: K-MEANS CLUSTERING ANALYSIS IN EMERGING ECONOMIES	438
Jabborov Elbek Erkin ugli	
THE FISCAL SIGNIFICANCE OF DIRECT TAXES IN IMPROVING THE INCOME TAXATION SYSTEM	445
Mirza Qilichbayevich Sabirov	
INTERCULTURAL COMMUNICATION: DESCRIPTION AND MAIN ASPECTS	451
Begmatova Ra'no Faxriddinovna	

FORECASTING THE TRANSFORMATIONAL DEVELOPMENT OF HUMAN CAPITAL TO ENSURE SUSTAINABLE ECONOMIC GROWTH: EVIDENCE FROM THE REGIONS OF UZBEKISTAN	454
Dinora Qudrat qizi Yusubboyeva	
METHODOLOGY FOR CREATING A RISK-ORIENTED SAMPLE AUDIT PROGRAM IN BUDGET ORGANIZATIONS	461
Misirov Akbarali Pardaboevich	

UQK: 657.6:336.14

METHODOLOGY FOR CREATING A RISK-ORIENTED SAMPLE AUDIT PROGRAM IN BUDGET ORGANIZATIONS

Misirov Akbarali Pardaboevich

Independent student of Tashkent State University of Economics

misirovakbarali@gmail.com

Abstract. The article analyzes the formation of the internal audit program in budget organizations and finds that programs are often prepared in a methodologically fragmented way, without a link to the object's risk profile. To address this, a methodology for designing a risk-based standard audit program with a five-part structure is proposed. The program is linked to the object's risk score and materiality threshold; audit areas and procedures are differentiated by the level of risk and supported by a set of standard working papers. The methodology helps standardize audit quality and enables integration with external audit.

Keywords: *internal audit, audit program, audit procedure, working papers, risk profile, materiality, risk-based auditing, budget organization.*

INTRODUCTION

The audit program is the main document that governs the entire audit process, which determines the purpose, scope, procedures and sequence of the audit. The quality of the audit program directly affects the quality of the audit result: a well-designed program focuses the auditor's attention on important issues, ensures the completeness and consistency of the audit, and strengthens the validity of the audit conclusion. International auditing standards (ISA 300, IIA Global Internal Auditing Standards) define audit planning and audit program development as an important stage in ensuring audit quality [1; 7].

The importance of the audit program is especially important in the context of a risk-based audit. In a risk-based approach, audit resources should be distributed proportionally to the risky areas of the object, which is achieved through the program: it is the program that determines which areas to examine and to what extent. If the program is developed separately from the risk profile, the entire logic of the risk-based approach is violated - the results of the risk assessment will not be translated into a practical audit. Therefore, the audit program serves as a connecting link between risk assessment and practical audit, and its correct formation determines the success of a risk-based audit.

However, the formation of an audit program in the practice of internal audit in budgetary organizations faces a number of problems. First, the programs are often methodologically fragmented - each auditor or organization uses its own form, there is no single standard structure. Second, the program is often not tied to the risk profile of the object: almost the same, formal program is applied to all objects and areas, as a result of which high-risk areas are not sufficiently thoroughly examined, and excessive resources are spent on low-risk areas. Third, a clear connection between audit procedures and working papers is not established, which reduces the quality of documentation of evidence.

These problems limit the effectiveness of audit activities and make it difficult to compare their results with external audits or quality assurance reviews. Therefore, the formation of an audit program on a unified, systematic and risk-oriented basis is one of the important directions for improving internal audit in the public sector.

The relevance of the issue is also increasing in terms of regulatory and legal aspects. Uzbekistan is undergoing consistent reforms to bring audit activities into line with international standards, and the Budget Code and the Model Regulation on the Internal Audit Service impose high requirements on the quality of planning and conducting audits [10; 11]. In the context of the transition to international auditing standards, the development of a unified, documented, and risk-based audit program is becoming an official requirement. However, the model structure and methodological tools necessary to implement this requirement in practice are

lacking. This contradiction determines the relevance of this study.

The purpose of this article is to develop and substantiate a methodology for forming a model risk-based audit program for budget organizations. The methodology includes a five-part structure of the program, its connection with the object risk profile and materiality threshold, and a set of model working documents. The article describes in detail the theoretical foundations, structure, and practical application of the methodology using tables and diagrams, and also justifies its integration into a single system with previous risk assessment and materiality determination methodologies.

The issue of planning an audit and developing an audit program is systematically developed in international professional documents. The International Auditing Standard ISA 300 "Planning an Audit of Financial Statements" defines the development of an audit strategy and an audit plan (program) as the initial and decisive stage of an audit [1]. The IIA's Global Internal Auditing Standards (2024) require the development of a plan for each audit assignment that defines its objective, scope and procedures, and emphasizes that this plan should be based on an assessment of the risk of the object [7]. INTOSAI standards highlight the specific aspects of planning and programming in government auditing [4].

The scientific literature presents various approaches to the development of an audit program. The structure of the audit program, the types of audit procedures (inspection, monitoring, confirmation, recalculation) and the logic of their selection are described in detail in the works of such scientists as A. Ahrens, J. Robertson and K. Pickett [5; 6; 8]. Working papers are described as the main means of documenting audit evidence and ensuring audit quality. It is also argued that within the framework of the risk-based audit concept, the depth of audit procedures should be adjusted to the level of risk of the object.

The literature review shows that, although the general principles of developing an audit program are well developed, a model program structure adapted specifically for budget organizations, directly linked to the quantitative risk assessment of the object and the materiality threshold, has not been sufficiently developed. Existing recommendations are often of a general nature and do not provide the auditor with specific instructions on "how to structure the program and how to form it in relation to the risk profile". In addition, the issue of integrating the audit program into a single system with risk assessment and materiality determination methodologies has hardly been studied. This article aims to fill these gaps.

The issue of audit procedures and the auditor's responses to risks is covered in detail in the international standard ISA 330 «The Auditor's Responses to Assessed Risks». The standard requires that the type, timing and extent of audit procedures be adapted to the level of assessed risk - for higher risks, more reliable and extensive evidence should be collected [2]. This principle theoretically justifies the main idea of the proposed methodology - linking the depth of procedures to the level of risk. ISSAI 300, in turn, defines specific approaches to program development in performance auditing [16].

The issue of maintaining working documents has been studied as an integral part of ensuring audit quality. In the works of W. Messier and other authors, working documents are described as the main means of recording audit evidence, substantiating audit conclusions and controlling audit quality [12]. It is emphasized that standardized working documents ensure consistency among auditors and make audit work more auditable. At the same time, there is rarely a holistic approach in the existing literature that presents working documents as an integral, structural part of the audit program - associated with each procedure. This methodology offers a holistic solution to this issue by combining the audit program, procedures and working documents into a single structure.

If we look at local practice, since internal audit services in Uzbekistan were established relatively recently - as part of the reform of state financial control - a single methodological base has not yet been fully formed. The internal audit service of each ministry and department often operates based on its own experience, and audit programs and working documents are drawn up in different forms. This leads to inconsistent audit quality across the system and difficulty in comparing audit results. Therefore, the development of a single, scientifically based, and model audit program in accordance with international standards for budget organizations is an urgent task, both theoretically and practically. This study is aimed at meeting this need.

The study used a systematic approach, comparative analysis and modeling methods. The main idea of the proposed methodology is to form an audit program in a single, five-part structure around the risk profile of the object and the materiality threshold. In this case, the results of the previous two methodologies - the cumulative risk score (R) of the object and the materiality threshold (M) - are used as input parameters of the audit program. Thus, risk assessment, materiality determination and program development form a single methodological chain.

The proposed sample audit program consists of five parts (Figure 1). The first is the organizational (introductory) part: it includes the audit basis, information about the object, the audit period, the object's risk score (R), the materiality threshold (M), the audit objective and scope. The second is the risk-oriented audit areas: based on the risk profile of the object, priority audit areas (budget execution, public procurement, payroll,

asset management, etc.) are determined. The third is the audit procedures: specific procedures are developed for each area, with deeper and broader procedures allocated to high-risk areas.

Fourth — sample work documents: standard forms (checklists, sample tables, evidence protocols) are provided for recording the results of each procedure. Fifth — conclusion and reporting part: the results identified are summarized, conclusions and recommendations are formulated, and the procedure for monitoring the implementation of recommendations is determined. These five parts cover the entire audit cycle — from planning to reporting — and consistently take into account the risk profile and materiality at each stage.

When selecting audit procedures, their types and relevance to the object are taken into account. The main types of procedures used in the methodology are: document review (contract, invoice, payment documents), observation (direct observation of the process at the object), confirmation (obtaining information from a third party), recalculation (verifying the correctness of calculations) and analytical procedures (analyzing indicators). For each audit area, a set of procedures appropriate to its characteristics is selected. For example, in the field of public procurement, document review and price comparison are prioritized, while in the field of assets, observation and recalculation are more important. The correct selection of types of procedures ensures the reliability of audit evidence and the effectiveness of the audit.

The central principle of the methodology is to adapt the depth of audit procedures and the scope of the audit to the risk level of the object. This principle is expressed by the following conditional relationship: the intensity of the audit of the area (I) is determined as a function of its risk level (P) and the overall risk score of the object (R), and the materiality threshold (M) determines the sample size. Thus, in high-risk areas, the number of procedures is large, the materiality threshold is strict and the audit coverage is complete, while in low-risk areas, the procedures are limited and the coverage is selective.

An important feature of the methodology is its close connection with the previous two methodologies. The risk assessment methodology provides an aggregate risk score (R) of the object and its risk profile, while the materiality determination methodology calculates the materiality threshold (M). The audit program formulation methodology takes these two results as input parameters and, based on them, determines the content of the program - which areas to inspect, to what depth and with what sample size. The sequential chain of these three methodologies - risk assessment → materiality determination → program formulation - forms a holistic methodological system for planning a risk-oriented audit. Each methodology builds on the results of the previous one and provides input to the next.

The main result of the proposed methodology is a five-part model structure of the audit program (Table 1). This structure clearly defines the content, main elements and relationship of each part to the risk profile. The advantage of the structure is that, on the one hand, it provides a single, standard form for all audits, and on the other hand, it retains the flexibility to adapt it to each object's risk profile (Table 1).

Table 1
Structure of a risk-oriented sample audit program

No.	Program part	Main content and its relationship to the risk profile
1	Organizational (introduction) part	Audit basis, object, period, risk score (R), materiality threshold (M), objective and scope. Risk and materiality are entered as input parameters of the program
2	Risk-based audit areas	Based on the risk profile of the facility, priority areas are determined (budget execution, purchases, wages, assets). High-risk areas are prioritized
3	Audit procedures	Specific treatments for each area. The number and depth of treatments are adjusted to the level of risk
4	Sample working documents	Standard format for each treatment: checklist, sampling table, evidence report. Sample size is determined based on significance (M)
5	Closing and reporting part	Summary of results, conclusion, recommendations and implementation monitoring procedure

Source: developed by the author based on international standards (ISA 300, GIAS) and the specifics of the budget sector.



Figure 1. Five-part structure of the risk-based sample audit program

The second important result of the methodology is to relate audit procedures and audit coverage to the level of risk. As shown in Figure 2, the number of audit procedures and inspection coverage for high-risk areas is set to the maximum (24 procedures, 100% coverage in the example), medium (14 procedures, 60% coverage) for medium-risk areas, and minimum (7 procedures, 30% coverage) for low-risk areas. This stratification directs audit resources to areas of risk and increases the cost-effectiveness of the audit.

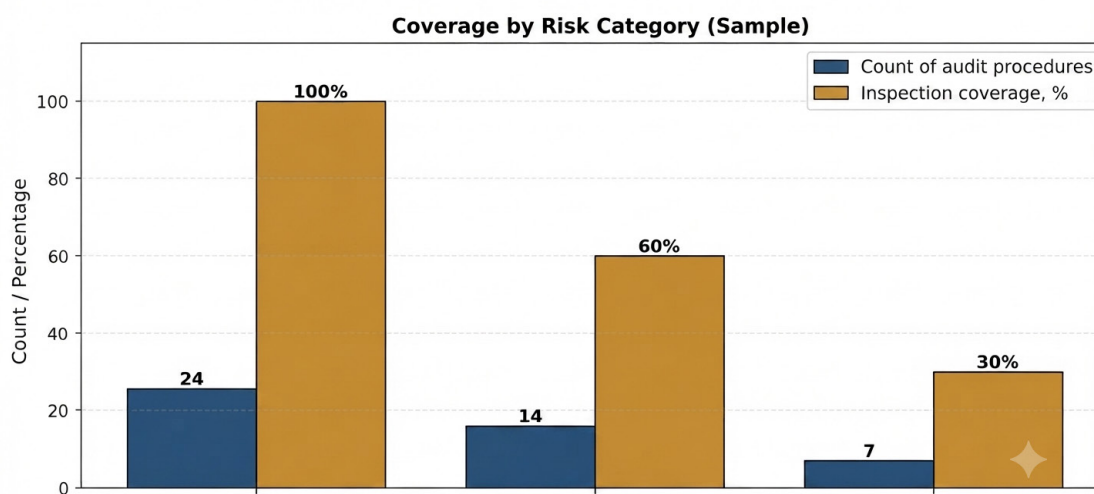


Figure 2. Distribution of Audit Procedures Count and Inspection Coverage, % Coverage by Risk Category (Sample)

A part of the sample audit program is provided to show the specific content of the audit procedures by sector (Table 2). It describes the audit procedures, their purpose and the relevant working paper for the example of the public procurement sector. This sample passage provides the auditor with clear guidance on how to structure the program and how to document each procedure (Table 2).

Table 2
Excerpt of sample audit program (public procurement sector)

No.	Audit procedure	Purpose	Work document
1	Registration and selective inspection of purchase contracts	Checking the legality and reasonableness of purchases	Check sheet

2	Comparison of purchase prices with market prices	Determining whether prices are inflated	Selection table
3	Checking the actual availability of goods/services received	Identify fraudulent transactions	Statement of Evidence
4	Checking the compatibility of payments and contract terms	Confirmation of reasonableness of payments	Check sheet

Source: author's development (sample excerpt to demonstrate the methodology).

The sample passage shows that each audit procedure is associated with a specific objective and a corresponding working document. This relationship provides the auditor with clear instructions not only on “what to check”, but also on “why to check” and “where to record the results”. For example, the procedure of comparing purchase prices with market prices aims to identify price overruns, and the results are recorded in a sample table. Such a structure makes the audit work consistent, complete and documented. This approach significantly increases the effectiveness of the audit in high-risk areas such as public procurement - given that in practice it is precisely in this area that large-scale violations are detected.

The third important element of the methodology is a set of sample working documents. The result of each audit procedure is recorded in the appropriate standard form: inspection sheet (statement and result of the procedure), sample table (composition and size of the sample), statement of evidence (identified fact and its evidence). Standardization of working documents performs two important tasks: firstly, it ensures complete and consistent documentation of audit evidence, and secondly, it allows to demonstrate the validity of audit work in external assessment of audit quality (quality assurance review).

The composition of the set of sample working documents and the task of each is presented in Table 3. This package documents all stages of the audit process—planning, gathering evidence, and concluding—and defines the place of each document in the audit program (Table 3).

Table 3

A set of sample working documents and their function

No.	Work document	Task	Related parameter
1	Audit Planning Sheet	It specifies the object, period, risk score (R), significance (M), objective, and scope.	R, M
2	Check sheet	Each treatment description, execution and result is recorded	Treatment
3	Selection table	It reflects the selection composition, size and selection method	Importance (M)
4	Statement of Evidence	Records the established fact, its evidence and the amount of the violation	Result
5	Summary and recommendations sheet	Summarizes the results, formulates conclusions and recommendations	Report

Source: author development.

The advantages of the proposed methodology over current practice are as follows. First, standardization: a single model structure eliminates methodological fragmentation and provides a consistent format for all audits. Second, risk-based: the program is tied to the risk profile of the object and directs audit resources to risky areas. Third, documentation: model working documents ensure high-quality recording of audit evidence. Fourth, integration: the program is integrated into a single system with risk assessment and materiality determination methodologies, which creates a unified methodological basis for audit planning.

Another important aspect of the methodology is its ease of integration with external audit. The model structure and standard working documents ensure transparency of audit results and allow external auditors (the Accounts Chamber, independent audit organizations) to rely on internal audit work. This helps to reduce duplicate audits in the state audit system and to use audit resources more efficiently. The unified program structure also serves as the basis for monitoring audit quality and evaluating auditors' activities.

An important advantage of the model program is that it provides a balance between standardization and flexibility. On the one hand, the five-part structure and set of working documents establish a single format for all audits, which eliminates methodological diversity and makes the quality of the audit consistent. On the other hand, the content of the program - the areas of inspection, the number and depth of procedures - is adjusted depending on the risk profile of each facility, which, unlike a formal, uniform approach, makes each audit unique to the characteristics of the facility. Thus, the methodology implements the principle of «single format - individual

content». This principle is key to making audits both standardized and effective, as it ensures consistency and at the same time directs resources to the most important points at each facility.

Real practice data confirms the relevance of the methodology. In 2024, the main part of the 65.1 billion soum violations identified during the audit activities in the ministry system falls on the spheres of public procurement, salaries and budget execution [9]. The identification of these areas as priority inspection areas in the sample program and the application of more in-depth treatment to them will allow for effective detection of such violations. This shows the relevance and practical effectiveness of the methodology to real sources of risk.

The model program consistently links all stages of the audit cycle. The risk score (R) determined in the organizational section determines the selection of priority areas in the second section, and the materiality threshold (M) determines the sample size in the fourth section; the results of the procedures in the third section are summarized in the fifth section and translated into conclusions and recommendations. Thus, each part of the program is logically connected to the others, forming a clear roadmap for the auditor from planning to reporting. This consistency makes the audit process manageable, complete, and verifiable — which is especially important for less experienced auditors.

When implementing the methodology in practice, it is necessary to observe a number of organizational conditions. First, the model program and a set of working documents must have official status - they must be approved as a relevant methodological document. Second, auditors must be trained in the correct use of the model program, in particular, in adapting procedures to the level of risk. Third, the transfer of the program to electronic form - on a digital audit platform, the risk score and significance are automatically calculated, and a program template is formed - will significantly increase the effectiveness of the methodology. Fourth, it is advisable to adapt the model program to the characteristics of various sectors (education, healthcare, local budgets) and develop sectoral options. When these conditions are met, the methodology becomes a practical tool that can really improve the quality of the audit.

CONCLUSIONS AND SUGGESTIONS

The results of the study lead to the following conclusions. First, the formation of an internal audit program in budget organizations is still methodologically fragmented, not tied to the risk profile of the entity; this limits the quality of the audit and its comparability. Second, a methodology for forming a model risk-oriented audit program with a five-part structure was proposed as a solution to the problem.

Third, the methodology links the program to the risk score (R) and materiality threshold (M) of the object, stratifies the areas of inspection and audit procedures by risk level, and supplements it with a set of model working documents. This allows standardizing audit quality, directing resources to risky areas, and ensuring integration with external audits. The following practical recommendations are proposed: (1) incorporating the structure of the model program and the set of working documents into the methodological documents of internal audit services; (2) integrating the program with risk assessment and materiality determination methodologies into a single audit methodology; (3) pilot testing and improving the model program; (4) automating the audit process by transferring the program and working documents to electronic (digital) form.

The scientific significance of the study is that it transforms the principles of audit planning established in international standards into a clear, risk-oriented and unified methodological tool for budget organizations. The practical significance is manifested in the direct application of the methodology by internal audit services, allowing for standardization of audit quality and effective organization of audit activities. A promising direction of the study is to integrate the proposed program formation methodology with the methodologies of risk assessment, materiality determination and audit effectiveness assessment into a single risk-oriented audit system and implement it on a digital platform.

In conclusion, the methodology for developing a risk-based model audit program is an important tool for improving the quality of internal audit in budget organizations. It standardizes the audit planning stage and translates the results of risk assessment and materiality determination into practical verification. The five-part structure of the methodology, its connection to a set of working documents and a risk profile make it both systematic and adaptable. Also, the methodology's compatibility with a digital platform and the potential for integration with external audits make it a tool that meets the requirements of modern state audit. Therefore, this methodology, together with previous risk assessment and materiality determination methodologies, forms a holistic methodological basis for improving internal audit in the public sector.

REFERENCES

- International Auditing and Assurance Standards Board. ISA 300: Planning an Audit of Financial Statements. – New York: IFAC, (2023).
- International Auditing and Assurance Standards Board. ISA 330: The Auditor's Responses to Assessed Risks. – New York: IFAC, (2023).

3. Шеремет А.Д. Комплексный анализ хозяйственной деятельности. – М.: ИНФРА-М, (2017). – 415 с.
4. INTOSAI. ISSAI 100. Fundamental Principles of Public-Sector Auditing. – Vienna: INTOSAI, (2019).
5. Arens A.A., Elder R.J., Beasley M.S. Auditing and Assurance Services: An Integrated Approach. – Boston: Pearson, (2017).
6. Robertson J.C., Louwers T.J. Auditing and Assurance Services. – New York: McGraw-Hill, (2018).
7. The Institute of Internal Auditors. Global Internal Audit Standards. – Lake Mary, Florida: The IIA, (2024). – 130 p.
8. Pickett K.H.S. The Internal Auditing Handbook. 3rd ed. – Chichester: John Wiley & Sons, (2010). – 1056 p.
9. Ўзбекистон Республикаси Олий таълим, фан ва инновациялар вазирлиги Ички аудит хизматининг 2024 йил фаолияти яқунлари бўйича йиллик ҳисоботи. – Тошкент, (2025).
10. Ўзбекистон Республикасининг Бюджет кодекси. ЎРҚ-360-сон, (2013). // Қонунчилик маълумотлари миллий базаси (www.lex.uz).
11. Ўзбекистон Республикаси Вазирлар Маҳкамасининг «Вазирлик ва идораларнинг ички аудит хизмати тўғрисидаги намунавий низом» 416-сон Қарори, (2022). // www.lex.uz.
12. Messier W.F., Glover S.M., Prawitt D.F. Auditing & Assurance Services: A Systematic Approach. – New York: McGraw-Hill, (2019).
13. The Institute of Internal Auditors. International Professional Practices Framework (IPPF). – Lake Mary, Florida: The IIA, (2017).
14. Власова И.Е. Риск-ориентированный подход в организации внутреннего аудита. // Международный бухгалтерский учет, 21(3), (2018). 245-258 с.
15. Каракоз И.И., Самборский В.И. Теория экономического анализа. – Киев: Вища школа, (1989). – 255 с.
16. INTOSAI. ISSAI 300. Performance Audit Principles. – Vienna: INTOSAI, (2019).

Proofreader: Zokir ALIBEKOV

Layout and Designer: Oloviddin Sobir ugli

2026. № 6

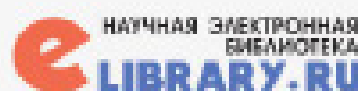
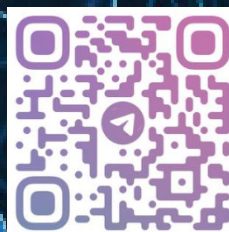
© When materials are reproduced, the INNOVATION SCIENCE AND TECHNOLOGY journal must be cited as the source. Authors are responsible for the accuracy of the information in materials and advertisements published in the journal. Editorial opinions may not always align with those of the authors. Submitted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