ECONOSCITECH INTEGRATION

ISSUE 6

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 MONTHLY

ARTICLE CONTRIBUTORS

PROFESSORS, SCHOLARS, SPECIALISTS, AND RESEARCHERS

Google Scholar
Academic Resource Index ResearchBib
BASE
OpenAIRE
doi Digital Object Identifier
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 6. 374 pages.
Approved for publication on Iyun, 2026.

CONTENTS

MECHANISMS FOR IMPLEMENTING TECHNOLOGICAL AND DIGITAL INNOVATIONS.....10
Shakirxodjayeva Zuxra Rustamxanovna
DEVELOPMENT OF ORGANIZATIONAL AND ECONOMIC MECHANISMS FOR IMPROVING INVESTMENT PROCESSES IN THE CONSTRUCTION INDUSTRY.....16
Aliyeva Zilola Mamatvalyevna
CURRENT STATE AND STRUCTURAL ANALYSIS OF THE DEVELOPMENT OF SERVICE SECTORS IN TASHKENT CITY.....23
Abdikayumov Bekzod Turdiniyozovich
GREEN BONDS VS. SUSTAINABILITYLINKED LOANS: WHICH WORKS FOR INDUSTRIAL DECARBONISATION?.....29
Ataxanov Umidbek Olimovich
ИНТЕГРИРОВАННАЯ МОДЕЛЬ УПРАВЛЕНИЯ ЭКОНОМИЧЕСКОЙ БЕЗОПАСНОСТЬЮ БАНКА.....34
Маликова Дилрабо Муминовна
ECONOMETRIC MODELLING OF FAMILY ENTREPRENEURSHIP DEVELOPMENT IN THE TOURISM SECTOR: EVIDENCE FROM UZBEKISTAN.....42
Pardayeva Ozoda Mamayunusovna
AN INTEGRAL INDEX METHODOLOGY FOR ASSESSING THE INVESTMENT POTENTIAL OF AGRICULTURAL ENTERPRISES.....49
Sayyora Bakhtiyorovna Nazirova
ГОСУДАРСТВЕННЫЕ, ПУБЛИЧНЫЕ И ОБЩЕСТВЕННЫЕ ФИНАНСЫ В УСЛОВИЯХ ЦИФРОВОЙ ТРАНСФОРМАЦИИ: ТЕРМИНОЛОГИЧЕСКИЕ ГРАНИЦЫ И ИНСТИТУЦИОНАЛЬНАЯ ЭВОЛЮЦИЯ.....53
Срожиддинова Зарина Хайриддиновна
BLOCKCHAIN-BASED FINANCIAL TRANSACTION MONITORING SYSTEM (SMART CONTRACTS, DECENTRALIZED DATABASE, AND AUDIT TRAILS).....58
Olimova Mukhlisa Vohidjon qizi
FAMILY ENTREPRENEURSHIP AS A DRIVER OF EMPLOYMENT IN THE TOURISM SECTOR: REGIONAL DISPARITIES AND INSTITUTIONAL MECHANISMS IN UZBEKISTAN.....65
Pardayeva Ozoda Mamayunusovna
ANALYSIS OF THE MAIN STATISTICAL INDICATORS OF LABOR RESOURCE UTILIZATION IN SURXONDARYO REGION.....72
Haydarova Dinora Atamurot qizi
ASSESSING THE ROLE OF SPECIAL ECONOMIC ZONES IN REGIONAL ECONOMIC GROWTH ACROSS THE REGIONS OF UZBEKISTAN USING INTENSITY COEFFICIENTS AND CLUSTER ANALYSIS.....77
Anvarkhonov Abdulatifkhon Jamshidkhon ugli
TECHNICAL, ECONOMIC, AND ENVIRONMENTAL EFFICIENCY OF IMPLEMENTING AGRIVOLTAIC SYSTEMS IN UZBEKISTAN.....85
Jabborov Shaymurod Akram o‘g‘li
Botirov Bozorbek Musurmon o‘g‘li
Atoyeva Mohinur Amrilloyevna
Avazov Jonibek Azizbek o‘g‘li
МОДЕЛИРОВАНИЕ ВЛИЯНИЯ ЧЕЛОВЕЧЕСКОГО КАПИТАЛА НА ТРАЕКТОРИЮ ЭКОНОМИЧЕСКОГО РОСТА.....91
Хазраткулова Лола Нармуминовна
FINANCING GREEN PROJECTS IN THE REPUBLIC OF UZBEKISTAN: STATUS, CHALLENGES AND PROSPECTS.....97
Qorriyeva Shahnoza Safarbayevna

FORMULA-BASED DISTRIBUTION OF INTERGOVERNMENTAL TRANSFERS TO LOCAL BUDGETS IN UZBEKISTAN: A COMPARATIVE SIMULATION ANALYSIS BASED ON 2026 FORECAST INDICATORS 103
Umidjon Pardaev
Sarvar Maxmudov
GOVERNMENT FUNDING AND THE DEVELOPMENT OF INNOVATIVE ACTIVITIES: FINANCIAL PROMOTION MECHANISMS 115
Bahriddinov Nodirbek Zamirdinovich
FORECASTING EXPORT AND IMPORT INDICATORS OF BUKHARA REGION 122
Ergashev Mirjon Yorqin o'g'li
A CUSTOMER-ORIENTED INTEGRATIVE METHODOLOGICAL MODEL FOR IMPROVING THE EFFICIENCY OF TOURIST SERVICES IN THE TOURISM AND HOSPITALITY INDUSTRY 130
Bakayev Ziyovuddinkhan Toshbolta ogli
A PESTLI ANALYSIS OF THE EFFICIENCY OF THE HOUSING STOCK MANAGEMENT SYSTEM 139
Mamanazarov Oybek Shomurodovich
ANALYSIS OF THE DEVELOPMENT STATUS AND EXPORT ACTIVITIES OF SMALL BUSINESS AND PRIVATE ENTREPRENEURSHIP IN UZBEKISTAN 146
Khikmatullayeva Nargiza Jamoliddin kizi
CHANGE MANAGEMENT DURING QUALITY ASSURANCE REFORM IN HIGHER EDUCATION INSTITUTIONS 154
Urinov Bobur Nasilloyevich
СТРАТЕГИИ УСТОЙЧИВОГО РАЗВИТИЯ ПАЛОМНИЧЕСКОГО ТУРИЗМА В УЗБЕКИСТАНЕ 162
Каримова Дилафруз Садриддин кизи
E-COMMERCE AS A DIGITAL FORM OF ENTREPRENEURSHIP IN INCREASING HOUSEHOLD INCOMES 167
Eshbayeva Shahnoza Fakhriddinovna
ADVANTAGES OF IMPLEMENTING AN OCCUPATIONAL AND SKILLS MAPPING SYSTEM IN UZBEKISTAN'S LABOUR MARKET 172
S.B.Goyipnazarov
S.M.Kurbanbaeva
ASSESSMENT OF THE EFFICIENCY OF FIXED ASSETS UTILIZATION IN RAILWAY ENTERPRISES: EVIDENCE FROM UZBEKISTAN 178
Turdiyeva Irodaxon Ismoil qizi
SCIENTIFIC AND METHODOLOGICAL APPROACHES TO ASSESSING RESOURCE USE IN THE CONTEXT OF A GREEN ECONOMY 183
Karimov Islombek Bekpolat o'g'li
THE IMPACT OF ECOTOURISM ON REGIONAL ECONOMIC DEVELOPMENT ....
Samiev Siroj Saitovich
Ochilova Guli Rashid kizi
THE IMPACT OF RISK ALLOCATION ON INVESTMENT EFFICIENCY IN PUBLIC–PRIVATE PARTNERSHIP (PPP) PROJECTS 197
Khaydarova Charos Nizomiddinovna
PROSPECTS FOR CHANGING THE VOLUME OF GRAPE CULTIVATION DUE TO THE USE OF INNOVATIVE TECHNOLOGIES IN THE VITICULTURE COMPLEX 202
Boltaev Nazarbek Narzullaevich
ЦИФРОВЫЕ МЕХАНИЗМЫ ОБОСНОВАНИЯ НАЧАЛЬНОЙ ЦЕНЫ В ГОСУДАРСТВЕННЫХ ЗАКУПКАХ: ПРОЗРАЧНОСТЬ, КОНКУРЕНЦИЯ И РАЦИОНАЛЬНОЕ ИСПОЛЬЗОВАНИЕ СРЕДСТВ 209
Тўхтасинов Бобомурод Исақжон ўғли
ENHANCING FOREIGN DIRECT INVESTMENT INFLOWS IN THE POST-CRISIS ERA:

CONTENTS

AN ECONOMETRIC ANALYSIS OF UZBEKISTAN 215
Foziljon Rustamov Xazratkulovich
CURRENT STATE AND DEVELOPMENT TRENDS OF THE TEXTILE INDUSTRY 219
Musayeva Shoira Azimovna
ITHE PECULIARITIES OF USING FOREIGN EXPERIENCE IN IMPROVING THE EFFICIENCY OF TOURIST AND RECREATIONAL AREAS 225
Makhliyo Umarova
CHALLENGES OF ATTRACTING INVESTMENTS IN HUMAN CAPITAL AND STRATEGIES FOR THEIR RESOLUTION 231
Aloviddin Zayniddinov Zayniddin ugli
ANALYSIS OF THE EXPERIENCE OF SUCCESSFUL AGROTOURISM DESTINATIONS IN DIFFERENT COUNTRIES: RECOMMENDATIONS FOR UZBEKISTAN 237
Aktamov Olimjon Abdugani o‘g‘li
ASSESSING THE EFFICIENCY OF STRATEGIC MANAGEMENT OF EDUCATIONAL SERVICES EXPORT AT THE REGIONAL LEVEL 247
Alimova Shamsiya Abidovna
ECONOMIC ESSENCE OF THE EXPORT POTENTIAL OF BUSINESS ENTITIES AND CLASSIFICATION OF THE FACTORS SHAPING IT: THE CASE OF BUKHARA REGION 254
Djurayeva Munira Sadilloyevna
THE ROLE OF INDUSTRIAL ENTERPRISES IN THE ECONOMY OF BUKHARA REGION AND THEIR DEVELOPMENT TRENDS: AN ANALYSIS OF STRUCTURAL CHANGES AND REGIONAL CONCENTRATION 261
Azizjon Anvarovich Kadirov
Nigina Djurayevna Yusupova
IMPROVING THE ECONOMIC MECHANISMS FOR THE DEVELOPMENT OF BORDER TRANSPORT SYSTEMS 268
Ikromov Elyor Ibodulloyevich
ПУТИ ИНТЕГРАЦИИ НАЦИОНАЛЬНЫХ И МЕЖДУНАРОДНЫХ СТАНДАРТОВ АУДИТОРСКОЙ ДЕЯТЕЛЬНОСТИ В УЗБЕКИСТАНЕ 273
Бобонарова Камола
GREEN BONDS AND SOVEREIGN DEBT INSTRUMENTS FOR INFRASTRUCTURE ASSET RENEWAL: AN ANALYSIS OF FINANCIAL MECHANISMS 278
Suleimanov Farrukh
ENHANCING THE COMPETITIVENESS OF HIGHER EDUCATION INSTITUTIONS: A COMPARATIVE ANALYSIS OF INTERNATIONAL AND NATIONAL EXPERIENCES 286
Qudratova Gulzoda Mahmudovna
THE ROLE AND SIGNIFICANCE OF INFORMATION AND COMMUNICATION SERVICES IN THE DIGITAL ECONOMY 291
Munisa Abdurakhmonova
ECONOMETRIC MODELING OF REGIONAL ECONOMIC GROWTH BASED ON THE COBBDOUGLAS PRODUCTION FUNCTION: A CASE STUDY OF SURXONDARYA REGION 296
Turaev Bakhtiyor Ergashevich
GENERAL APPROACHES TO COST REDUCTION IN THE TEXTILE INDUSTRY 302
Kamola Saidova
СОВРЕМЕННОЕ СОСТОЯНИЕ ПЛАНИРОВАНИЯ И ОРГАНИЗАЦИИ ВНУТРЕННЕГО АУДИТА В БЮДЖЕТНЫХ ОРГАНИЗАЦИЯХ 307
Саитмуратов Саитмурат Машарип угли
A CONCEPTUAL MODEL OF THE IMPACT OF INTERMEDIATION SERVICES ON BANK PERFORMANCE AND ITS STATISTICAL RESEARCH METHODOLOGY 314
Miraxmedov Jasur Isroilovich
EMPLOYER BRANDING IN UZBEKISTAN: HOW TO BECOME AN EMPLOYER OF CHOICE FOR TALENT 320
Doniyorova Fotimabonu Alisher qizi

CONTENTS

FORMING THE COMMUNICATIVE CULTURE OF MANAGING PERSONNEL AND STUDENTS BASED ON A COMPETENCY-BASED APPROACH........325
Temirova Shakhlo Rakhmonovna

MODERN APPROACHES TO FORMING A COMMUNICATIVE CULTURE OF STUDENTS OF HIGHER EDUCATION INSTITUTIONS........331
Temirova Shakhlo Rakhmonovna

IMPROVEMENT OF THE SYSTEM OF ACCOUNTING AND ANALYSIS OF MATERIAL COSTS IN OIL AND GAS INDUSTRY ENTITIES BASED ON MODERN MANAGEMENT REQUIREMENTS........336
Sa'dullayeva Sayyora Nasillo qizi

ORGANIZATIONAL AND ECONOMIC APPROACHES AND BARRIERS TO THE INNOVATIVE DEVELOPMENT OF THE REPUBLIC OF UZBEKISTAN........341
Samieva Gulnoza Tokhirovna

THE IMPACT OF EFFECTIVE UTILIZATION OF LABOR POTENTIAL ON THE SUSTAINABLE ECONOMIC DEVELOPMENT OF A REGION (A case study of the Khorezm region)........348
Kutlimuratov Mansurbek Sattarovich

CHARACTERISTICS OF CLUSTERING TEXTILE ENTERPRISES........354
Asadbek Eshniyozov

THE ROLE OF EDUCATION AND CAPACITYBUILDING IN DEVELOPING THE ISLAMIC FINANCE INDUSTRY: A THEORETICAL AND COMPARATIVE ANALYSIS........358
Abdullaev Azamat Akbar o'g'li

THE ROLE OF 5G TECHNOLOGIES IN IMPROVING THE ECONOMIC PERFORMANCE OF TELECOMMUNICATION ENTERPRISES........366
Saidqosimova Umida Ibragimovna

DIGITAL PLATFORMS AND THE EFFICIENCY OF INCLUSIVE EDUCATION: EVIDENCE FROM UZBEKISTAN........371
Kholmonov Shodiyor Karshiboyevich

MAIN DIRECTIONS FOR THE DEVELOPMENT OF INTEREST RATE RISK MANAGEMENT PRACTICES IN COMMERCIAL BANKS OF UZBEKISTAN........377
Seitnazarov Daniyar Bakhadyrovich

METHODOLOGY AND WAYS OF EFFECTIVE MANAGEMENT OF SMALL INDUSTRIAL ZONES........385
Shodmonkulov Kamoliddin Murodillayevich

MAIN DIRECTIONS AND PROSPECTS FOR THE EFFECTIVE MANAGEMENT OF INVESTMENTS IN THE CONTEXT OF TRANSFORMATION........391
To'rayev Jasurali To'rayevich

IMPROVING THE EFFECTIVE MANAGEMENT OF THE DEVELOPMENT OF SMALL INDUSTRIAL ZONES........395
Shodmonkulov Kamoliddin Murodillayevich

ПОВЫШЕНИЕ ИНВЕСТИЦИОННОЙ АКТИВНОСТИ РЕГИОНОВ КАК ФАКТОР ОБЕСПЕЧЕНИИ УСТОЙЧИВОГО ЭКОНОМИЧЕСКОГО РОСТА........399
Бутаева Сабина Холиёровна

THE ROLE OF DIGITAL MARKETING STRATEGIES IN INCREASING THE BRAND CAPITAL OF TOURISM ENTERPRISES........404
Zufarov Akmal Gulamiddinovich

ANALYSIS OF THE CURRENT STATE OF INFRASTRUCTURE PROJECT FINANCING UNDER PUBLIC-PRIVATE PARTNERSHIPS (PPP)........416
Shodiev Akmal O'ktamjon ugli

IMPROVING THE MANAGEMENT OF THE INVESTMENT ENVIRONMENT........422
To'rayev Jasurali To'rayevich

BLOCKCHAIN AND IOT FOR DIGITAL TRACKING OF FOOD EXPORTIMPORT FLOWS........426
Nazarova Ra'no Rustamovna
Najmiddinov Yakhyo Fazliddin ugli

CONTENTS

THE PAYBACK PERIOD METHOD IN PERSONAL FINANCE: APPLICATIONS AND IMPLICATIONS FOR FINANCIAL DECISION-MAKING 438
Akhunova Elena Anvarovna
DEVELOPMENT OF AN ADAPTIVE FIBONACCI STRUCTURAL ANALYSIS MODEL FOR GOLD TRADING: EVIDENCE FROM THE XAU/USD MARKET 447
Tukmirzaev Kamol Mumin ugli
DEVELOPING MARKETING MANAGEMENT IN RETAIL TRADE THROUGH A BRAND MANAGEMENT SYSTEM: DIRECTIONS AND STRATEGIC PRIORITIES........ 455
Shohboz Roʻzimatov Hamdambek oʻgʻli
MODERN APPROACHES TO FORMING A COMMUNICATIVE CULTURE OF STUDENTS OF HIGHER EDUCATION INSTITUTIONS 461
Temirova Shakhlo Rakhmonovna
FORMING THE COMMUNICATIVE CULTURE OF MANAGING PERSONNEL AND STUDENTS ON THE BASIS OF A COMPETENCY-BASED APPROACH........ 466
Temirova Shakhlo Rakhmonovna
ЭВОЛЮЦИЯ НАУЧНЫХ ВЗГЛЯДОВ НА РОЛЬ СФЕРЫ УСЛУГ В ЭКОНОМИКЕ........ 472
Усманов Фарзод Шохрухович
STRATEGIC INSIGHTS FOR UZBEKISTAN'S RURAL DIGITALIZATION: LESSONS FROM THE SPATIAL SPILLOVER EFFECTS OF CHINA'S DIGITAL ECONOMY 481
Zhang Zhe
ЦИФРОВЫЕ МЕХАНИЗМЫ ОБОСНОВАНИЯ НАЧАЛЬНОЙ ЦЕНЫ В ГОСУДАРСТВЕННЫХ ЗАКУПКАХ: ПРОЗРАЧНОСТЬ, КОНКУРЕНЦИЯ И РАЦИОНАЛЬНОЕ ИСПОЛЬЗОВАНИЕ СРЕДСТВ 487
Тўхтасинов Бобомурод Исақжон ўғли
IMPROVING ORGANIZATIONAL AND ECONOMIC MECHANISMS FOR ENHANCING SERVICE INFRASTRUCTURE EFFICIENCY: EVIDENCE FROM KASHKADARYA REGION 493
Azimov Islom
ASSESSING DIGITAL GOVERNANCE EFFECTIVENESS IN HIGHER EDUCATION INSTITUTIONS: EVIDENCE FROM UZBEKISTAN 498
Berdiyev Temurbek Makhmudullo ugli
РАЗРАБОТКА ИНТЕГРАЛЬНОГО ИНДЕКСА КОРПОРАТИВНОГО УПРАВЛЕНИЯ (CGI) ДЛЯ БАНКОВ С ГОСУДАРСТВЕННЫМ УЧАСТИЕМ........ 506
Жумадуллаева Дурдона Шухрат кизи
DIGITAL ECONOMY-BASED GOVERNANCE IN HIGHER EDUCATION: LEVERAGING AI AND DATA FOR IMPROVED INSTITUTIONAL PERFORMANCE 512
Olimjonov Abbosjon Olimjonovich
THE IMPACT OF E-COMMERCE DEVELOPMENT ON NATIONAL ECONOMIC COMPETITIVENESS........ 517
Baymuradov Shokhrukh Makhmudovich
FACTORS INFLUENCING TAX REVENUE EFFICIENCY IN UZBEKISTAN IN THE CONTEXT OF SUSTAINABLE DEVELOPMENT........ 522
Jurayev Xusan Atamuratovich
THE ESSENCE, TASKS, AND INTERNATIONAL APPROACHES OF INTERNAL AUDIT IN LEASING TRANSACTIONS........ 536
Sadritdinov Bakhodir Bakhtiyarovich
DIGITAL TRANSFORMATION OF MANAGEMENT ACCOUNTING IN THE MINING SECTOR........ 543
Oybekova S.K.
METHODOLOGY FOR REFLECTING GOODWILL, INTANGIBLE ASSETS, AND INVESTMENTS IN CONSOLIDATION........ 548
Maxmudova Nargiza Davlyat qizi
FACTORS AFFECTING DAIRY PRODUCTION EFFICIENCY:

CONTENTS

CORRELATION AND REGRESSION ANALYSIS........554
Ergashev M.Y.
Tairova Z.M.
THE DMED INFORMATION SYSTEM AS A FOUNDATION FOR THE DEVELOPMENT OF THE NATIONAL E-HEALTH SYSTEM........561
Omonov Olim Murodullayevich
THEORETICAL AND ECONOMIC FOUNDATIONS FOR ENHANCING THE COMPETITIVENESS OF AGRICULTURAL PRODUCTS IN GLOBAL MARKETS........566
Safarova Muxabbat Radjabovna
THEORETICAL AND ECONOMIC FOUNDATIONS OF INNOVATIVE TECHNOLOGIES IN THE SUPPLY SYSTEM OF NURSERY FARMS........573
Abdufarmonov Farrux Faxriddinovich
APPLICATION OF DIGITAL TECHNOLOGIES IN THE TOURISM MARKET AND ASSESSMENT OF THE EFFICIENCY OF THE PLATFORM ECONOMY........580
Jumayev Bobomurod Nurmaxmat o'g'li
ОСОБЕННОСТИ «ЖЕНСКОГО» ЧЕЛОВЕЧЕСКОГО КАПИТАЛА В ЭКОНОМИЧЕСКОЙ СИСТЕМЕ........586
Холбаева Сабина Рустамовна
ВНЕДРЕНИЕ ПРИОРИТЕТНЫХ НАПРАВЛЕНИЙ ПОДДЕРЖКИ ИННОВАЦИОННОЙ ДЕЯТЕЛЬНОСТИ С УЧЁТОМ ЗАРУБЕЖНОГО ОПЫТА В МАЛОМ И СРЕДНЕМ БИЗНЕСЕ УЗБЕКИСТАНА........595
Камбарова Шахнозахон Мирвахитовна
ISSUES OF EFFECTIVELY UTILIZING REGIONAL EXPORT POTENTIAL IN UZBEKISTAN........603
Umaraliyev Sarvar Rustamovich
TERRITORIAL DISPROPORTIONS IN TOURISM INFRASTRUCTURE OF THE JIZZAKH REGION AND THEIR IMPACT ON TOURIST FLOWS........610
A.Sh. Daliev
T.Sh. Muxiddinov
METHODOLOGICAL APPROACHES TO HOUSING CONSTRUCTION DEVELOPMENT IN UZBEKISTAN: INVESTMENT EFFICIENCY AND PUBLIC–PRIVATE PARTNERSHIP MECHANISMS........616
Mirumar Abdulla Ugli Usmonov
IMPROVEMENT OF COST ACCOUNTING AND ECONOMIC ANALYSIS IN THE FISHERY INDUSTRY: PRIORITY DIRECTIONS FOR THE ADAPTATION OF IFRS, ECONOMETRIC MODELING, AND ESG REPORTING FOR FISHERY CLUSTERS IN UZBEKISTAN........620
Shodiev Aslam Rakhmatilloevich
Alikulov Abdumumin Ismatovich
WAYS TO DEVELOP FRUIT PROCESSING ENTERPRISES BASED ON THE CLUSTER SYSTEM........627
Yusufova Laylo G'ayrat qizi
ARTIFICIAL INTELLIGENCE IN MODERN BANKING SERVICE DEVELOPMENT........635
Mamutova Aygul Kalmurzaevna
IMPLEMENTATION OF COMPUTER-ASSISTED AUDIT TECHNIQUES (CAATS) AND ANALYTICAL PROCEDURES IN THE AUDIT OF COMMERCIAL BANKS' FINANCIAL STATEMENTS........642
Ibragimov Nodirbek Baxodir ugli
CRITERIA FOR ASSESSING THE QUALITY OF THE AUDIT OF COMMERCIAL BANKS' FINANCIAL STATEMENTS AND THE FORMATION OF KEY AUDIT MATTERS (ISA 701)........649
Ibragimov Nodirbek Baxodir ugli
THE ROLE OF EDUCATION AND CAPACITYBUILDING IN DEVELOPING THE ISLAMIC FINANCE INDUSTRY: A THEORETICAL AND COMPARATIVE ANALYSIS........656
Abdullayev Azamat Akbar o'g'li

FOREIGN EXPERIENCE IN SERICULTURE DEVELOPMENT: ORGANIZATIONAL AND ECONOMIC MECHANISMS APPLICABLE TO UZBEKISTAN 664
Janikulova Lobar Shakarbaevna

SUSTAINABLE COMPETITIVE ADVANTAGE THROUGH ESG AND ENERGY MANAGEMENT: A GREEN MARKETING PERSPECTIVE 670
Khaydarova Kamola Axinjanovna

SYSTEM AND STRATEGY FOR HUMAN CAPITAL DEVELOPMENT IN AN ORGANIZATION 675
Azimov Tolmas Nematullayevich

MECHANISMS FOR ENHANCING THE EXPORT POTENTIAL OF SMALL BUSINESSES: EVIDENCE FROM UZBEKISTAN 682
Abdusalim Shavkatov

STRUCTURE AND DYNAMICS OF BANK LOANS 689
Jorayeva Zarifa

THE IMPORTANCE OF USING MODERN APPROACHES IN THE MANAGEMENT OF BUSINESS PROCESSES OF TEXTILE ENTERPRISES 698
Djumaniyazova Mo'tabarkhan Ravshanbekovna

IMPROVING THE METHOD OF ASSESSING MARKETING ACTIVITY EFFICIENCY IN SEWING AND KNITTING ENTERPRISES 704
Muminov Dilmurod Tokhtasinovich

MODERN INDICATORS FOR EVALUATING THE EFFECTIVENESS OF INTERNATIONAL GRANTS AND TARGETED PROGRAMS IN HIGHER EDUCATION INSTITUTIONS 713
Ulugbek Qudrat ugli Almardanov

STAGES OF INDUSTRIAL ENTERPRISES' TRANSITION TO A GREEN ECONOMY UNDER MANAGEMENT TRANSFORMATION 717
Matluba Nematovna Abdullayeva
Kamoliddin Fakhriddin ugli Nuriddinov

THE ROLE OF INFLATION TARGETING AND INTEREST RATE POLICY IN MANAGING CAPITAL FLOWS: EVIDENCE FROM UZBEKISTAN AND EMERGING ECONOMIES 722
Mamadjanov Farrux

IMPROVING THE USE OF DIGITAL TECHNOLOGIES IN CORPORATE ENTERPRISE MANAGEMENT 731
Kuchkarov Ulugbek Taxirovich

ISSUES OF FORMING AND EFFECTIVELY UTILIZING INVESTMENT RESOURCES IN FUEL AND ENERGY ENTERPRISES 735
Shukurillaev Jahongir Botir o'g'li

IMPROVING THE APPLICATION OF BIG DATA TECHNOLOGIES IN THE DIGITALIZATION OF COMMERCIAL BANKS 741
Turabova Shahnoza Taxirovna

EVALUATING THE EFFECTIVENESS OF PROJECTS IMPLEMENTED BY CIVIL SOCIETY INSTITUTIONS USING PUBLIC FUNDS 746
Xusanova Gulsum Baxtiyorovna

UNCONVENTIONAL MONETARY POLICY AND INFLATION TARGETING IN EMERGING ECONOMIES: LESSONS FOR UZBEKISTAN 755
Saidov Sardorbek

IMPROVING SCIENTIFIC CONSULTING SERVICE PROCESSES IN HIGHER EDUCATION INSTITUTIONS THROUGH AN INTEGRATED DIGITAL PLATFORM 763
Nafisa Erkinovna Norboyeva

ПОВЫШЕНИЕ ЭФФЕКТИВНОСТИ ИСПОЛЬЗОВАНИЯ АКТИВОВ НЕФТЕГАЗОВОЙ КОМПАНИИ НА ОСНОВЕ РАЗВИТИЯ АУТСОРСИНГОВЫХ УСЛУГ (НА ПРИМЕРЕ АО «УЗБЕКНЕФТЕГАЗ»)......770
Шодмонов Шокир Дустмуродович

IMPROVING THE RECOGNITION AND MEASUREMENT OF EMPLOYEE COMPENSATION EXPENSES IN ACCORDANCE WITH INTERNATIONAL FINANCIAL REPORTING STANDARDS......780
Rakhimov Anvar Makhmarasulovich

METHODS FOR INCREASING ECONOMIC EFFICIENCY IN ENTERPRISES IN THE CONSTRUCTION INDUSTRY......785
Asadova Maftuna Sa'dullayevna

ISSUES OF THE FORMATION AND EFFECTIVE UTILIZATION OF INVESTMENT RESOURCES IN FUEL AND ENERGY ENTERPRISES......790
Shukurillaev Jahongir Botir o'g'li

EVALUATING THE EFFECTIVENESS OF PROJECTS IMPLEMENTED BY CIVIL SOCIETY INSTITUTIONS USING PUBLIC FUNDS......796
Xusanova Gulsum Baxtiyorovna

ЭКОНОМЕТРИЧЕСКОЕ МОДЕЛИРОВАНИЕ ВЛИЯНИЯ ИНСТРУМЕНТОВ ДЕНЕЖНО-КРЕДИТНОЙ ПОЛИТИКИ НА УРОВЕНЬ ИНФЛЯЦИИ В РЕСПУБЛИКЕ УЗБЕКИСТАН......806
Холмуродов Жавохир Бахтияр угли

IMPORTANT STAGES IN THE PRODUCT LIFE CYCLE: TYPES OF CUSTOMER RELATIONSHIPS APPLICABLE TO UZBEKISTAN......813
Xasanova Setora Furqat qizi

ASSESSMENT OF THE COST ACCOUNTING SYSTEM AT FOOD INDUSTRY ENTERPRISES......820
Khudoyberdiev Ulugbek Shukhratovich

ЭКОНОМЕТРИЧЕСКИЙ АНАЛИЗ ФАКТОРОВ, ВЛИЯЮЩИХ НА ЭФФЕКТИВНОСТЬ ДЕЯТЕЛЬНОСТИ КОММЕРЧЕСКИХ БАНКОВ......824
Курбонов Илхом Жумакулович

FINANCIAL RESOURCES OF REGIONAL STATE HIGHER EDUCATION INSTITUTIONS AND THE STATE OF THEIR UTILIZATION......829
Islomov Bobur Zarifjon ugli

MODERN APPROACHES TO IMPROVING FIXED ASSET MANAGEMENT IN HIGHER EDUCATION INSTITUTIONS UNDER THE NEW FINANCIAL ACCOUNTING SYSTEM......835
Ruziyev Shavkatjon Fakhridinovich

INTERNATIONAL PRACTICES IN THE VALUATION OF MOVABLE ASSETS FOR LOAN COLLATERAL PURPOSES......843
Khojamqulov Jasur Jura ugli

METHODOLOGY OF COMPREHENSIVE ASSESSMENT OF THE EFFICIENCY OF THE INTERNAL AUDIT SERVICE IN BUDGET ORGANIZATIONS......851
Misirov Akbarali Pardaboevich

UQK: 657.6:336.14

METHODOLOGY OF COMPREHENSIVE ASSESSMENT OF THE EFFICIENCY OF THE INTERNAL AUDIT SERVICE IN BUDGET ORGANIZATIONS

Misirov Akbarali Pardaboevich
Independent student of Tashkent State University of Economics
misirovakbarali@gmail.com
Tel.: +998 97 331 05 80

Abstract. The article analyzes the issue of assessing the effectiveness of the internal audit service in budget organizations and reveals that in practice, effectiveness is often assessed one-sidedly by a single indicator (the amount of identified violations). To solve the problem, an integral assessment methodology based on three components — preventive (Ep), economic (Ei) and the effectiveness of recommendations (Et) — is proposed. The integral indicator Iint is calculated according to the formula Iint = $w_1 \cdot Ep + w_2 \cdot Ei + w_3 \cdot Et$ *(weights 0.40; 0.30; 0.30). The methodology allows for multidimensional assessment, comparison and stimulation of the activities of internal audit services.*

Key words: internal audit, efficiency, integrated assessment, preventive efficiency, economic efficiency, efficiency of recommendations, public sector, rating.

Аннотация. В статье проанализирована оценка эффективности деятельности службы внутреннего аудита в бюджетных организациях и установлено, что на практике эффективность часто оценивается односторонне — по одному показателю (сумма выявленных нарушений). Для решения проблемы предложена методика интегральной оценки на основе трёх компонентов: профилактической (Эп), экономической (*Эи*) и эффективности рекомендаций (Эт). Интегральный показатель рассчитывается по формуле *Иинт* = $w_1 \cdot Эп + w_2 \cdot Эи + w_3 \cdot Эт$ (веса 0,40; 0,30; 0,30). Методика позволяет многомерно оценивать, сравнивать и стимулировать деятельность служб внутреннего аудита.

Ключевые слова: *внутренний аудит, эффективность, интегральная оценка, профилактическая эффективность, экономическая эффективность, эффективность рекомендаций, государственный сектор, рейтинг.*

INTRODUCTION

An objective assessment of the effectiveness of the internal audit service is one of the important conditions for improving the audit system in the public sector. Correct performance evaluation allows to identify the strengths and weaknesses of audit services, compare them, encourage and rationally allocate resources. In international practice, the effectiveness of internal audit is considered as a multidimensional concept — it is evaluated not only through detected violations, but also through prevention, implementation of recommendations, and value added to the organization's management [1; 7].

The concept of efficiency itself has a broad meaning in audit theory. It includes such aspects as economy (saving resources), effectiveness (obtaining a result with minimal resources), and efficiency (the degree of achievement of the goal). In the context of internal audit, efficiency is manifested in the real impact of audit activities on the organization - strengthening financial discipline, preventing violations, and improving the quality of management. Therefore, measuring audit efficiency by only one financial indicator simplifies its multifaceted nature and does not fully reflect the true value of audit activities. This is the main methodological problem addressed in this study.

However, in the practice of assessing the effectiveness of internal audit in budget organizations, there is a problem of one-sidedness. Efficiency is often assessed by a single indicator - the amount of financial irregularities detected. This approach encourages the audit service to detect more irregularities, while neglecting preventive activities. As a result, a paradoxical situation arises: a service that prevents irregularities, and therefore "detects" few irregularities, may be considered ineffective, while a service that detects them where there are many irregularities may be considered effective. This contradicts the logic of the main goal of auditing - to prevent irregularities.

In addition, a one-sided assessment does not take into account other important aspects of the audit service - the effectiveness of recovering identified funds and implementing recommendations. The true value of audit activities is reflected precisely in these aspects: identifying a violation is only the first step, and its recovery and prevention of recurrence are the real results of the audit. Therefore, there is a need to assess the effectiveness of internal audit using an integrated indicator that covers several dimensions.

The purpose of this article is to develop and justify an integrated assessment methodology that comprehensively assesses the effectiveness of the internal audit service in budget organizations based on three components (preventive, economic and recommendation effectiveness). The methodology includes the procedure for calculating each component, their weights and a formula for combining them into a single integrated indicator. The article describes in detail the theoretical foundations, calculation procedure and practical application of the methodology using exemplary examples, tables and diagrams.

The relevance of the issue is also increasing from a regulatory and legal perspective. In a situation where an efficiency-oriented approach is being introduced in public administration in Uzbekistan, where the activities of each state body and service are evaluated based on performance indicators, the need to assess the activities of internal audit services using objective, multidimensional criteria is also increasing [10; 11]. However, in practice, there is no single, scientifically based methodology for such an assessment - efficiency is often measured using arbitrary or one-sided indicators. This makes it difficult to fairly compare and promote audit services. This need determines the relevance of this study.

The issue of assessing the effectiveness of internal audit is actively studied in international professional documents and scientific literature. The IIA's Global Internal Auditing Standards establish the need to assess the effectiveness of internal audit activities and measure their value added to the organization's objectives [1]. INTOSAI standards (ISSAI 300) cover the basics of performance auditing in the public sector - the criteria of economy, efficiency and effectiveness. These documents interpret efficiency as a multidimensional concept.

In the scientific literature, multi-criteria approaches to assessing performance have been widely developed. The concept of a balanced scorecard proposes the idea of assessing performance according to various measures and combining them into a single system. In the field of economic analysis, the formation of integral indicators - the generalization of several specific indicators using weights - is a widely used method [3; 15]. The work of A.D. Sheremet and other scientists studied the issue of selecting specific indicators and their generalization in assessing performance.

The Balanced Scorecard developed by R. Kaplan and D. Norton justified the need to assess the organization's activities not only by financial indicators, but also from several perspectives [2]. This concept can also be applied to assessing the effectiveness of internal audit: it is advisable to evaluate audit activities by various measures (prevention, economic result, impact of recommendations) and combine them into a single indicator. The proposed methodology adapts this approach to the field of internal audit and combines three important measures into an integral indicator. Such an approach provides balance in assessing effectiveness and eliminates the risk of excessive reliance on a single indicator.

The literature review shows that, although a general methodology for the integrated assessment of performance has been developed, an integrated methodology specifically adapted for public sector internal audit services, covering the specific results of audit activities (prevention, recovery, implementation of recommendations), has not been sufficiently developed. Existing approaches often rely on a single financial indicator or use general criteria that do not take into account the specifics of the audit. In addition, the issue of prioritizing preventive activities in assessing audit performance has received little attention. This article aims to fill these gaps.

The dangers of performance measurement based on a single indicator have also been widely studied in management theory. If performance is measured by a single indicator, employees or organizations may focus on improving that indicator and neglect other important aspects—a phenomenon known as the "indicator game." In the context of internal auditing, if performance is measured solely by the sum of identified violations, audit services may focus on "detecting" more violations and may discourage preventive activities—that is, preventing violations—from occurring. Multidimensional integrated assessment eliminates this danger: by balancing the various components, it prevents one-sided distortions of performance and encourages true, holistic effectiveness. This is one of the theoretically important foundations of the proposed methodology.

Foreign studies have proposed various models for assessing internal audit activities. The classic works of L. Sawyer and other authors argue that the effectiveness of internal audit should be assessed not only by financial results, but also by its contribution to improving organizational governance [15]. The works of A. Neely and colleagues on measuring performance ("Performance Prism") show the advantages of multidimensional assessment [12]. These studies emphasize the dangers of reducing performance to a single indicator and the need for a multidimensional approach.

Looking at local practice, a single methodological framework for assessing the effectiveness of internal audit services in Uzbekistan has not yet been fully formed. The activities of internal audit services of ministries and departments are often assessed by individual indicators, such as the amount of violations detected during the year or the number of inspections conducted. Such an assessment does not fully reflect the qualitative aspects of audit activities - preventive impact, economic return and practical results of recommendations. Therefore, the development of a methodology for assessing effectiveness, adapted for the public sector, integrated into a multidimensional and risk-oriented audit system, is an urgent task.

The research used the methods of systemic analysis, multi-criteria assessment, and the formation of integral indicators. The main idea of the proposed methodology is to assess the effectiveness of internal audit through three independent, but complementary components and combine them into a single integral indicator. The methodology consists of four stages: (1) identifying the components of effectiveness; (2) calculating each component on a scale of 0–100; (3) determining the weight of the components; (4) calculating the integral indicator and interpreting the results.

Three components of effectiveness were identified (Figure 1). The first is preventive effectiveness (Ep): it assesses the activity of the audit service to prevent violations (the amount of violations prevented, preventive measures taken). The second is economic effectiveness (Ei): it assesses the funds identified and returned to the budget, as well as the economic return on audit costs. The third is the effectiveness of recommendations (Et): it assesses the level of implementation of the recommendations made.

The selection of these three components is based on the reflection of the full cycle of audit activities. Audit activities provide a three-stage result: prevention of violations (prevention), detection of violations and recovery of funds (economic result), and recommendations to eliminate systemic weaknesses and their implementation (recommendation result). These three components complement each other and do not duplicate each other: prevention measures the result before the violation occurs, economic result measures the result after it occurs, and recommendations measure the result aimed at preventing future violations. Thus, the three components comprehensively cover the past, present and future impact of audit activities, which allows for a complete and proportionate assessment of effectiveness.

Each component is normalized on a scale from 0 to 100, based on the relevant proprietary indicators. Then the integral efficiency indicator is calculated according to the following formula:

$$\mathrm{Iint} = w_1 \cdot \mathrm{Ep} + w_2 \cdot \mathrm{Ei} + w_3 \cdot \mathrm{Et}, \ (1)$$

where Iint is the integral efficiency indicator (0–100); Ep, Ei, Et are preventive, economic and recommendation efficiency, respectively; w_1, w_2, w_3 are the relative weights of the components (the sum of the weights is 1.00). The weights of the components were determined based on their importance for the audit objective: preventive efficiency was given the greatest weight ($w_1 = 0.40$), since the prevention of violations is the main, strategic objective of the audit; economic efficiency and recommendation efficiency were given equal weight ($w_2 = w_3 = 0.30$).

There is an important methodological basis for prioritizing preventive effectiveness. Traditional one-sided assessment encourages audits to detect violations and neglect prevention. By giving the greatest weight to the preventive component, the methodology directs the audit service to prevent violations—that is, the real purpose of the audit. This shifts the incentive mechanism in the right direction: the service is not interested in detecting more violations, but in preventing them.

Normalizing each component on a scale of 0–100 is an important methodological issue, since the components are expressed in different units of measurement (prevention - in soums, economic efficiency - in percent, recommendations - in percent). For normalization, each specific indicator is evaluated relative to its maximum possible value or the best result in the system. For example, the effectiveness of recommendations (Et) is taken directly as a percentage of implementation (100 percent implementation = 100 points). Economic efficiency (Ei) is normalized based on the level of return and economic return. Preventive efficiency (Ep) is evaluated based on the volume of violations prevented and the scope of preventive measures. Such normalization brings indicators of different sizes onto a single, comparable scale and allows them to be combined into an integral indicator.

The procedure for calculating each component of the proposed methodology is based on specific specific indicators (Table 1). Preventive efficiency (Ep) is calculated by the amount of violations prevented and the number of preventive measures, economic efficiency (Ei) is calculated by the ratio of returned funds to the determined amount and economic return on audit costs, and the efficiency of recommendations (Et) is calculated by the ratio of implemented recommendations to total recommendations (Table 1).

Table 1
Components of the integrated efficiency indicator and their calculation

Sign	Component	Weight	Computational logic (custom pointers)
Ep	Prophylactic efficiency	0.40	On a scale of 0–100, based on the sum of violations prevented, the number and scope of preventive measures taken
Hey	Economic efficiency	0.30	Based on the ratio of the amount recovered to the determined amount and the economic return on audit costs
Meat	Effectiveness of recommendations	0.30	Based on the ratio of implemented recommendations to total recommendations issued (level of implementation)

Source: developed by the author based on analysis of international standards and audit practice.

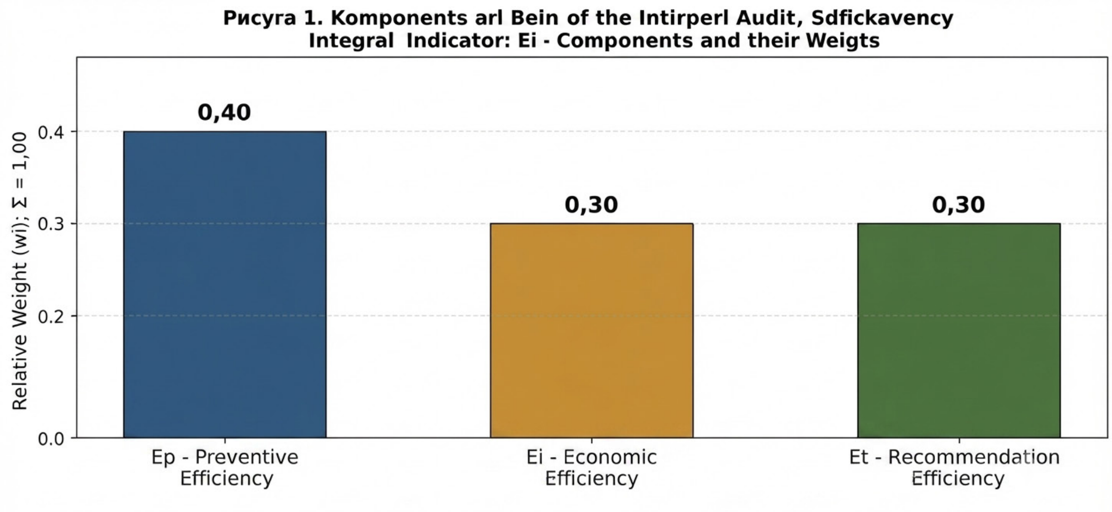

Figure 1. Components and Weights of the Internal Audit Efficiency Integral Indicator

The practical application of the methodology was shown in the example of a comparative assessment of two internal audit services (Table 2, Figure 2). The first service (Service 1) had a strong focus on preventive activities, ensuring consistent implementation of recommendations; and the second service (2nd service) is mainly focused on detection of violations, preventive activities are weak. Each component was evaluated on a scale of 0–100, and the integral index was calculated according to the formula (1) (Table 2).

Table 2
Integrated assessment of the effectiveness of two internal audit services (exemplary)

Index	Weight	Service 1	Service 2	Explanation
Ep is preventive efficiency	0.40	**75**	**52**	0–100 points
Ei is economic efficiency	0.30	**71**	**50**	0–100 points
Et is the effectiveness of recommendations	0.30	**69**	**49**	0–100 points
Iint is an integral pointer	**1.00**	**72.0**	**50.5**	$\Sigma w_i \cdot Э_i$

Source: author's calculation (scores are sample, to demonstrate methodology).

The calculation results show an important advantage of the methodology: the integrated indicator allows for multidimensional comparison of services. The integrated indicator of service 1 (72.0) is significantly higher than that of service 2 (50.5), the main reason for which is its strong focus on preventive activities (Ep = 75). If efficiency was only measured by the sum of violations detected, Service 2 (which detected more violations) could appear artificially more efficient. Integral methodology gives priority to prevention and correctly reflects the real efficiency.

Comparative analysis reveals another important feature of the integral indicator: it provides not only an overall assessment, but also a structural analysis of efficiency. Figure 2 shows that all components of service 2 are lower than service 1, but the greatest difference is observed in the preventive component (52 versus 75). This clearly shows the main weakness of service 2 - the lack of preventive activities, and allows us to identify targeted measures (strengthening the preventive system) in relation to it. Thus, the integral methodology serves not only as an assessment tool, but also as a means of substantiating management decisions - it identifies weak points and indicates areas for improvement.

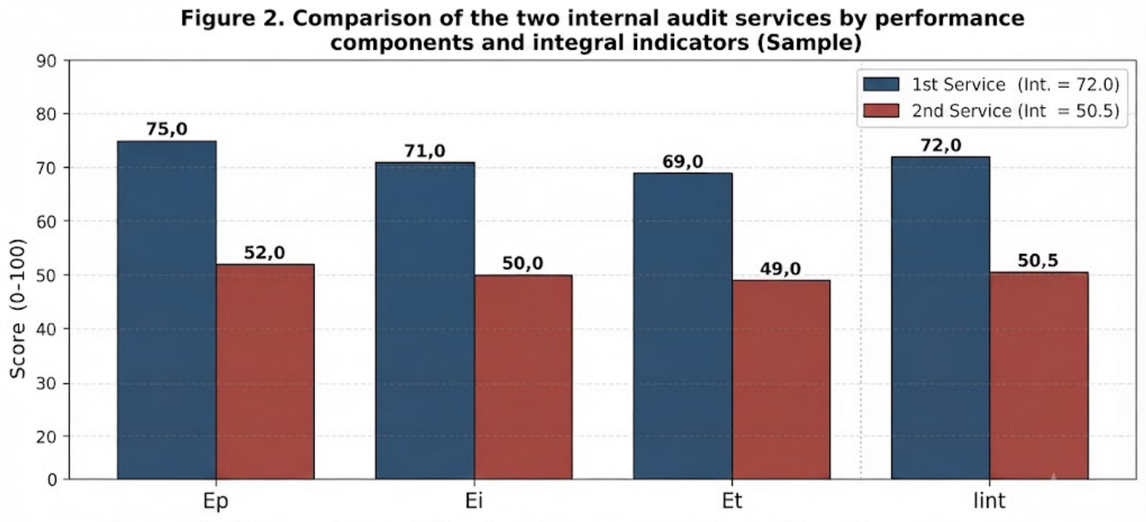

Figure 2. Comparison of the two internal audit services by performance components and integral indicators (Sample)

The practical significance of the methodology is also supported by real data. According to the 2024 report of the Ministry's Internal Audit Service, a total of 56.2 billion soums of violations were prevented (prevention) in the system, 65.1 billion soums of violations were detected, of which 9.0 billion soums were returned to the budget, and all recommendations (211) were fully — 100 percent — implemented [9]. These data provide the basis for a realistic calculation of the three components: the volume of prevention (56.2 billion) reflects the preventive potential of the audit, the level of return (13.8 percent) reflects the economic efficiency, and the implementation of recommendations (100 percent) reflects the effectiveness of the recommendations. In particular, the large volume of prevention (56.2 billion soums) confirms how important the preventive function of the audit is and the correctness of giving it priority.

The distribution of real report data for all three components is presented in Table 3. These data show that the methodology can be applied based on real values and that there is a clear statistical basis for each component (Table 3).

Table 3
Real data for integral assessment components (2024)

Sign	Component	Real indicator (2024)	Value
Ep	Prophylactic efficiency	Amount of violations prevented (231 preventive measures)	56.2 billion soums
Hey	Economic efficiency	Determined: 65.1 billion; returned: 9.0 billion (return rate)	13.8%
Meat	Effectiveness of recommendations	Recommendations made / recommendations given (211 / 211)	100%

Source: Author's calculations based on data from the 2024 annual report of the Ministry's Internal Audit Service (Appendix 2).

The advantages of the proposed methodology over current practice are as follows. First, multidimensionality: effectiveness is assessed not by one, but by three dimensions, covering various aspects of audit activities.

Second, correct motivation: giving priority to the preventive component directs the audit service to prevent violations. Third, comparability: the integral indicator allows comparing and rating different services on a single scale. Fourth, objectivity: the assessment is based on a clear formula and specific indicators, reducing subjectivity.

It should also be noted that the integrated assessment methodology serves to create a healthy competitive environment among audit services. When the efficiency rating of services is publicly announced, each service strives to improve its indicators, especially to strengthen preventive activities. This leads to a consistent increase in audit quality on a system-wide basis. In addition, the integrated indicator is also a valuable source of information for top management, which serves as a basis for monitoring the general state of the audit system, effectively distributing resources and making strategic decisions. Thus, the methodology can be used as a tool for managing not only a single service, but also the entire internal audit system.

The integrated indicator can be used as a practical tool in the management of audit services. It serves as a basis for rating services by their level of effectiveness, identifying and disseminating best practices, forming an incentive system, identifying weak components (for example, low preventive effectiveness) and determining targeted measures. Also, monitoring the dynamics of the integrated indicator — comparing it from year to year — allows you to assess the trend of improvement or deterioration in the performance of the audit service.

When implementing the methodology in practice, it is necessary to observe certain organizational conditions. First, the specific indicators necessary for calculating each component (prevented violations, recovered funds, implementation of recommendations) should be collected in a uniform manner, from reliable sources. Second, the component weights should be determined based on the strategic priorities of the system and periodically reviewed. Third, automating the calculation and monitoring of the integral indicator on the basis of information systems will make the assessment fast, objective and consistent. Fourth, it is important to clearly communicate the assessment results to the audit services and use them to determine measures to improve them. When these conditions are met, the methodology becomes an effective tool for assessing and improving audit effectiveness.

Another important aspect of the methodology is its connection with previous methodologies and its role in the holistic assessment of the audit system. While the risk assessment, materiality determination, and audit program formulation methodologies ensure the quality of audit planning and execution, the integrated effectiveness methodology assesses the audit outcome—the final impact of the activity. Thus, the methodology forms the final, evaluation loop of the risk-based audit system and closes the entire cycle of the system (planning—execution—evaluation).

To assess the stability of the methodology, sensitivity to changes in component weights was analyzed. When testing the weights within the normative limits (for example, w_1 from 0.35 to 0.45), the relative ranking of services by the integral indicator remained stable - services with strong preventive activities retained a higher position in all cases. The main conclusions of this methodology indicate that it is not very sensitive to the exact value of the weights and is reliable for practical application. At the same time, when the weight of the preventive component is reduced, the difference between services decreases somewhat, which once again confirms the role of prioritizing prevention in motivating services.

The weighting of the components was determined taking into account the opinions of experts and the priority of the audit objectives. The proposed weights (0.40; 0.30; 0.30) are exemplary, and each organization or system can adjust them based on its strategic priorities. For example, in areas where violations are often observed, the weight of the economic component can be temporarily increased at the initial stage, and as the prevention system develops, the weight of the preventive component can be prioritized again. This flexibility allows the methodology to be adapted to different conditions and stages, while its main logic - multidimensional assessment of effectiveness - remains unchanged.

CONCLUSIONS AND SUGGESTIONS

The results of the study lead to the following conclusions. First, the assessment of the effectiveness of internal audit in budgetary organizations is still often carried out one-sidedly - mainly by the sum of detected violations; this encourages the audit to detect violations and neglects preventive activities. Second, an integrated assessment methodology based on three components was proposed as a solution to the problem: the integral indicator Iint = $w_1 \cdot Ep + w_2 \cdot Ei + w_3 \cdot Et$ is calculated according to the formula

Thirdly, the methodology gives a priority weight (0.40) to the preventive efficiency, directing the audit service to the prevention of violations - the original purpose of the audit; and the economic and efficiency of recommendations are given equal weight (0.30). A sample calculation showed that the method allows for multidimensional evaluation and comparison, and the analysis of real data showed its practical applicability. The following are proposed as practical recommendations: (1) inclusion of the integrated evaluation methodology in the official procedure for evaluating the effectiveness of internal audit services; (2) to establish a system of collection of private indicators necessary for the calculation of components in a uniform manner; (3) forming a service rating and incentive system based on an integrated indicator; (4) monitoring of indicator dynamics and its automation based on information systems.

The scientific significance of the study is that it eliminates bias in assessing the effectiveness of internal audit and creates an integrated methodological tool that corrects the multidimensional, incentive orientation. The practical significance is manifested in the fact that the methodology allows for objective assessment, comparison and management of the activities of audit services. A promising direction of the study is to combine the integrated assessment methodology with the methods of risk assessment, materiality determination and audit program formation into a single risk-oriented audit system and test it on the basis of real data.

In conclusion, the methodology for the integrated assessment of internal audit effectiveness is an important tool for improving the audit system. It comprehensively covers various aspects of audit activities, accurately reflects real effectiveness and encourages audit services to prevent violations. Together with the previous risk assessment, materiality determination and program formation methodologies, this methodology completes the integrated methodological framework for a risk-oriented internal audit system in the public sector and serves to raise audit activities to a qualitatively new level.

USED REFERENCES

1. The Institute of Internal Auditors. Global Internal Audit Standards. – Lake Mary, Florida: The IIA, (2024). – 130 p.

2. Kaplan R.S., Norton D.P. The Balanced Scorecard: Translating Strategy into Action. – Boston: Harvard Business School Press, (1996). – 322 p.

3. Шеремет А.Д. Комплексный анализ хозяйственной деятельности. – М.: ИНФРА-М, (2017). – 415 с.

4. INTOSAI. ISSAI 300. Performance Audit Principles. – Vienna: INTOSAI, (2019).

5. Arens A.A., Elder R.J., Beasley M.S. Auditing and Assurance Services: An Integrated Approach. – Boston: Pearson, (2017).

6. Pickett K.H.S. The Internal Auditing Handbook. 3rd ed. – Chichester: John Wiley & Sons, (2010). – 1056 p.

7. The Institute of Internal Auditors. International Professional Practices Framework (IPPF). – Lake Mary, Florida: The IIA, (2017).

8. Robertson J.C., Louwers T.J. Auditing and Assurance Services. – New York: McGraw-Hill, (2018).

9. Ўзбекистон Республикаси Олий таълим, фан ва инновациялар вазирлиги Ички аудит хизматининг 2024 йил фаолияти якунлари 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. Neely A., Adams C., Kennerley M. The Performance Prism: The Scorecard for Measuring and Managing Business Success. – London: Prentice Hall, (2002).

13. Каракоз И.И., Самборский В.И. Теория экономического анализа. – Киев: Вища школа, (1989). – 255 с.

Proofreader: Xondamir Ismoilov

Layout and Designer: Hasan Maqsudov

2026. № 6

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.

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