

# MUHANDISLIK & IQTISODIYOT

*ijtimoiy-iqtisodiy, innovatsion texnik,  
fan va ta'limga oid ilmiy-amaliy jurnal*

No 9

2025  
sentyabr



Milliy nashrlar

OAK: <https://oak.uz/pages/4802>

05.00.00 - Texnika fanlari

08.00.00 - Iqtisodiyot fanlar



Google  
Scholar

OPEN  
ACCESS

ULRICH'S WEB™  
GLOBAL SERIALS DIRECTORY

Academic  
Resource  
Index  
ResearchBib

ISSN  
INTERNATIONAL  
STANDARD  
SERIAL  
NUMBER  
INTERNATIONAL CENTRE

CYBERLENINKA

OpenAIRE

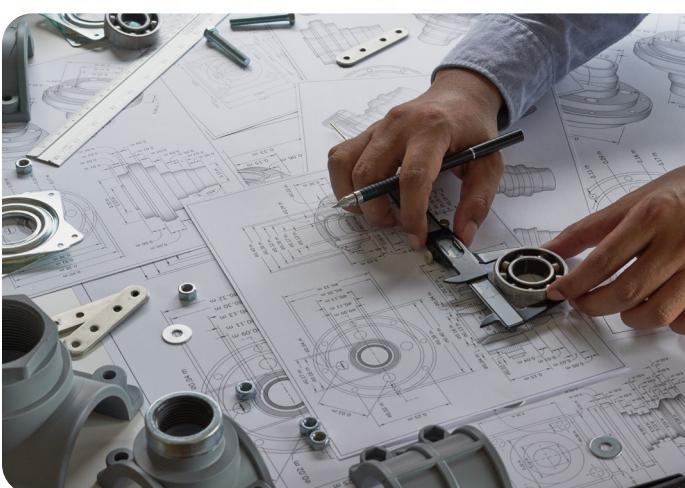
ROAD

INDEX COPERNICUS  
INTERNATIONAL

BASE

Crossref

НАУЧНАЯ ЭЛЕКТРОННАЯ  
LIBRARY.RU



РЭУ.РФ  
Российский экономический университет  
имени Г.В. ПЛЕХАНОВА  
ТАШКЕНТСКИЙ ФИЛИАЛ

1931  
TDSU  
TOSHKENT DAVLAT IQTISODIYOT UNIVERSITETI

ГЕОДЕЗИЧЕСКАЯ  
ИССЛЕДОВАНИЯ  
И ТЕХНОЛОГИИ  
ПОДСЧЕТА

1931  
SLOM KARIMOV NOMIDDI  
TDSU  
TOSHKENT DAVLAT TEKHNICHKA UNIVERSITETI

1955  
TDSU  
TOSHKENT DAVLAT  
TEKHNICHKA UNIVERSITETI

TJU  
TOSHKENT DAVLAT  
TRANSPORT UNIVERSITETI

TJU  
TOSHKENT  
AKHITTEKUTA-QURILISH  
UNIVERSITETI

TJU  
TOSHKENT KIYOG - TEKNOLOGIYA INSTITUTI  
1991

TJU  
TOSHKENT POLITEKNIKA INSTITUTI  
1991



# **muhandislik & iqtisodiyot**

ijtimoiy-iqtisodiy, innovatsion texnik,  
fan va ta'limga oid ilmiy-amaliy jurnal

**Bosh muharrir:**

**Zokirova Nodira Kalandarovna**, iqtisodiyot fanlari doktori, DSc, professor

**Bosh muharrir o'rribosari:**

**Shakarov Zafar G'afforovich**, iqtisodiyot fanlari bo'yicha falsafa doktori, PhD, dotsent

**Tahrir hay'ati:**

**Abduraxmanov Kalandar Xodjayevich**, O'z FA akademigi, iqtisodiyot fanlari doktori, professor

**Sharipov Kongratbay Avezimbetovich**, texnika fanlari doktori, professor

**Maxkamov Baxtiyor Shuxratovich**, iqtisodiyot fanlari doktori, professor

**Abduraxmanova Gulnora Kalandarovna**, iqtisodiyot fanlari doktori, professor

**Shaumarov Said Sanatovich**, texnika fanlari doktori, professor

**Turayev Bahodir Xatamovich**, iqtisodiyot fanlari doktori, professor

**Nasimov Dilmurod Abdulloyevich**, iqtisodiyot fanlari doktori, professor

**Allayeva Gulchexra Jalgasovna**, iqtisodiyot fanlari doktori, professor

**Arabov Nurali Uralovich**, iqtisodiyot fanlari doktori, professor

**Maxmudov Odiljon Xolmirzayevich**, iqtisodiyot fanlari doktori, professor

**Xamrayeva Sayyora Nasimovna**, iqtisodiyot fanlari doktori, professor

**Bobonazarova Jamila Xolmurodovna**, iqtisodiyot fanlari doktori, professor

**Irmatova Aziza Baxromovna**, iqtisodiyot fanlari doktori, professor

**Bo'taboyev Mahammadjon To'ychiyevich**, iqtisodiyot fanlari doktori, professor

**Shamshiyeva Nargizaxon Nosirxuja kizi**, iqtisodiyot fanlari doktori, professor,

**Xolmuxamedov Muhsinjon Murodullayevich**, iqtisodiyot fanlari nomzodi, dotsent

**Xodjayeva Nodiraxon Abdurashidovna**, iqtisodiyot fanlari nomzodi, dotsent

**Amanov Otabek Amankulovich**, iqtisodiyot fanlari bo'yicha falsafa doktori (PhD), dotsent

**Toxirov Jaloliddin Ochil o'g'li**, texnika fanlari bo'yicha falsafa doktori (PhD)

**Qurbanov Samandar Pulatovich**, iqtisodiyot fanlari bo'yicha falsafa doktori (PhD)

**Zikriyoyev Aziz Sadulloyevich**, iqtisodiyot fanlari bo'yicha falsafa doktori (PhD)

**Tabayev Azamat Zaripbayevich**, iqtisodiyot fanlari bo'yicha falsafa doktori (PhD)

**Sxay Lana Aleksandrovna**, iqtisodiyot fanlari bo'yicha falsafa doktori (PhD), dotsent

**Ismoilova Gulnora Fayzullayevna**, iqtisodiyot fanlari nomzodi, dotsent

**Djumaniyazov Umrbek Ilxamovich**, iqtisodiyot fanlari nomzodi, dotsent

**Kasimova Nargiza Sabitjanovna**, iqtisodiyot fanlari nomzodi, dotsent

**Kalanova Moxigul Baxritdinovna**, dotsent

**Ashurzoda Luiza Muxtarovna**, iqtisodiyot fanlari bo'yicha falsafa doktori (PhD)

**Sharipov Sardor Begmaxmat o'g'li**, iqtisodiyot fanlari bo'yicha falsafa doktori (PhD)

**Sharipov Botirali Roxataliyevich**, iqtisodiyot fanlari nomzodi, professor

**Tursunov Ulug'bek Sativoldiyevich**, iqtisodiyot fanlari doktori (DSc), dotsent

**Bauyedtinov Majit Janizaqovich**, Toshkent davlat iqtisodiyot universiteti dotsenti, PhD

**Botirov Bozorbek Musurmon o'g'li**, Texnika fanlari bo'yicha falsafa doktori (PhD)

**Sultonov Shavkatjon Abdullayevich**, Kimyo fanlari doktori, (DSc)

**Jo'raeva Malohat Muhammadovna**, filologiya fanlari doktori (DSc), professor.

# muhandislik & iqtisodiyot

ijtimoiy-iqtisodiy, innovatsion texnik,  
fan va ta'limga oid ilmiy-amaliy jurnal

- 05.01.00 – Axborot texnologiyalari, boshqaruv va kompyuter grafikasi
- 05.01.01 – Muhandislik geometriyasi va kompyuter grafikasi. Audio va video texnologiyalari
- 05.01.02 – Tizimli tahlil, boshqaruv va axborotni qayta ishlash
- 05.01.03 – Informatikaning nazariy asoslari
- 05.01.04 – Hisoblash mashinalari, majmualari va kompyuter tarmoqlarining matematik va dasturiy ta'minoti
- 05.01.05 – Axborotlarni himoyalash usullari va tizimlari. Axborot xavfsizligi
- 05.01.06 – Hisoblash texnikasi va boshqaruv tizimlarining elementlari va qurilmalari
- 05.01.07 – Matematik modellashtirish
- 05.01.11 – Raqamli texnologiyalar va sun'iy intellekt
- 05.02.00 – Mashinasozlik va mashinashunoslik
- 05.02.08 – Yer ustii majmualari va uchish apparatlari
- 05.03.02 – Metrologiya va metrologiya ta'minoti
- 05.04.01 – Telekommunikasiya va kompyuter tizimlari, telekommunikasiya tarmoqlari va qurilmalari. Axborotlarni taqsimlash
- 05.05.03 – Yorug'lik texnikasi. Maxsus yoritish texnologiyasi
- 05.05.05 – Issiqqlik texnikasining nazariy asoslari
- 05.05.06 – Qayta tiklanadigan energiya turlari asosidagi energiya qurilmalari
- 05.06.01 – To'qimachilik va yengil sanoat ishlab chiqarishlari materialshunosligi

- 05.08.03 – Temir yo'l transportini ishlatalish
- 05.09.01 – Qurilish konstruksiyalari, bino va inshootlar
- 05.09.04 – Suv ta'minoti. Kanalizatsiya. Suv havzalarini muhofazalovchi qurilish tizimlari
- 10.00.06 – Qiyoziy adabiyotshunoslik, chog'ishtirma tilshunoslik va tarjimashunoslik
- 10.00.04 – Yevropa, Amerika va Avstraliya xalqlari tili va adabiyoti
- 08.00.01 – Iqtisodiyot nazariyasi
- 08.00.02 – Makroiqtisodiyot
- 08.00.03 – Sanoat iqtisodiyoti
- 08.00.04 – Qishloq xo'jaligi iqtisodiyoti
- 08.00.05 – Xizmat ko'ssatish tarmoqlari iqtisodiyoti
- 08.00.06 – Ekonometrika va statistika
- 08.00.07 – Moliya, pul muomalasi va kredit
- 08.00.08 – Buxgalteriya hisobi, iqtisodiy tahlil va audit
- 08.00.09 – Jahon iqtisodiyoti
- 08.00.10 – Demografiya. Mehnat iqtisodiyoti
- 08.00.11 – Marketing
- 08.00.12 – Mintaqaviy iqtisodiyot
- 08.00.13 – Menejment
- 08.00.14 – Iqtisodiyotda axborot tizimlari va texnologiyalari
- 08.00.15 – Tadbirkorlik va kichik biznes iqtisodiyoti
- 08.00.16 – Raqamli iqtisodiyot va xalqaro raqamli integratsiya
- 08.00.17 – Turizm va mehmonxona faoliyati

Ma'lumot uchun, OAK

Rayosatining 2024-yil 28-avgustdagagi 360/5-son qarori bilan "Dissertatsiyalar asosiy ilmiy natijalarini chop etishga tavsiya etilgan milliy ilmiy nashrlar ro'yxati" ga texnika va iqtisodiyot fanlari bo'yicha "Muhandislik va iqtisodiyot" jurnali ro'yxatga kiritilgan.

**Muassis:** "Tadbirkor va ishbilarmon" MChJ

**Hamkorlarimiz:**

1. Toshkent shahridagi G.V.Plexanov nomidagi Rossiya iqtisodiyot universiteti
2. Toshkent davlat iqtisodiyot universiteti
3. Toshkent irrigatsiya va qishloq xo'jaligini mexanizatsiyalash muhandislari instituti" milliy tadqiqot universiteti
4. Islom Karimov nomidagi Toshkent davlat texnika universiteti
5. Muhammad al-Xorazmiy nomidagi Toshkent axborot texnologiyalari universiteti
6. Toshkent davlat transport universiteti
7. Toshkent arxitektura-qurilish universiteti
8. Toshkent kimyo-teknologiya universiteti
9. Jizzax politexnika instituti



# MUNDARIJA

Olmazor tumanining ijtimoiy-iqtisodiy rivojlanish ko'rsatkichlari va boshqaruv tizimini tahlil qilish .....	12
<b>Muminov Fazliddin Xusniddin o'g'li</b>	
Transport va logistika sohalarida sun'iy intellektni qo'llash istiqbollari .....	19
<b>Usmonov Abbas Valijon o'g'li</b>	
Using matrix analysis methods in marketing strategy in manufacturing enterprises .....	23
<b>Sheraliev Axror Sodiqovich</b>	
Yer osti konlari suvlari haydash tizimida ejektorli nasoslarni qo'llash imkoniyatlarini tadqiq qilish .....	30
<b>Xatamova Dilshoda Narmuratovna, Yuldasheva Mohinur Abduxakim qizi</b>	
O'zbekiston Respublikasi tijorat banklari kreditlash amaliyotining me'yoriy jihatlari va huquqiy asoslari .....	37
<b>Kaxxarov Ulug'bek Xalmatovich</b>	
Eksport salohiyatini boshqarishda ishlab chiqarish faoliyatini baholash metodologiyasi .....	42
<b>Qodirov Humoyun Tolibjon o'g'li</b>	
Xizmat ko'rsatish korxonalarining raqamli iqtisodiyotga o'tishida xodimlarning mehnat munosabatlari .....	46
<b>Kurbanova Raxima Jamshedovna</b>	
Transport tizimining Markaziy Osiyo mamlakalarining milliy iqtisodiy o'sishga ta'sirini hozirgi holati .....	49
<b>Narziyev Umidjon Baxrillayevich</b>	
Loyiha risklarini boshqarishda risklarni samarali kamaytirish usullari va innovatsion yondashuvlar .....	54
<b>Marufhanov Davron Xasanovich</b>	
Интеграция ESG-факторов в страховой сектор: возможности, барьеры и развитие рынка .....	58
<b>Юсупов Асфандиёр Элдор угли</b>	
Erkin iqtisodiy zonalarda investitsiya loyihalarini samarali moliyalashtirish yo'nalishlari .....	63
<b>Yuldashev Baxtiyor Gayradjonovich</b>	
Oliy ta'lim tashkilotlarida daromadlar va xarajatlarni shakllantirish konsepsiysi .....	67
<b>Kurbanov Jaloladdin Yuldashbayevich</b>	
"Intellektual multk", "Intellektual kapital", "Nomoddiy aktiv" tushunchalari o'rtafigagi munosabat hamda ulardagi o'zaro bog'liqlik .....	73
<b>N.D.Maxmudova</b>	
Temir yo'l vokzallarida qo'shimcha xizmatlar rivojlanishi: iqtisodiy samaradorlik va moliyaviy barqarorlik omili .....	77
<b>Iskandarov Kudrat Shuxratovich</b>	
Iqtisodiyotning agrar sektori salohiyatini rivojlantirishning ustuvor yo'nalishlari .....	83
<b>Bekmirzayev Mirzoxid Adashaliyevich</b>	
Rivojlangan mamlakatlar tajribasi asosida yashirin iqtisodiyotni fiskal vositalar bilan tartibga solish strategiyasi .....	87
<b>Ergasheva Malikaxon Avazxon qizi</b>	
Iqtisodiyotning real sektorida investitsion loyihalarni moliyalashtirishdagi muammolar .....	91
<b>Qosimova Lola Sultanovna</b>	
Mashinasozlik sanoati tarmog'ini rivojlantirishda yashil texnologiyalarni tadbiq etish usullari va yo'llari .....	96
<b>Xursandov Komiljon Maxmatkulovich</b>	
Innovatsion iqtisodiyotni shakllantirish sharoitida mintaqalar ijtimoiy-iqtisodiy rivojlanishidagi qiyinchiliklar va imkoniyatlar .....	100
<b>Rajabov Alibek Xushnudbekovich</b>	



Ways to enhance financial transparency in utility service organizations through the digitalization of internal audit mechanisms.....	106
--	-----

Primova Shakhnoza Komiljonovna

MUNDARIJA • СОДЕРЖАНИЕ • CONTENTS



# WAYS TO ENHANCE FINANCIAL TRANSPARENCY IN UTILITY SERVICE ORGANIZATIONS THROUGH THE DIGITALIZATION OF INTERNAL AUDIT MECHANISMS

**Primova Shakhnoza Komiljonovna**

«Tashkent Institute of Irrigation and Agricultural Mechanization Engineers»

– National Research University

Specialty 08.00.08 – “Accounting, Economic Analysis and Audit”

Third-year PhD student

[Shahnozakomiljonovna1@gmail.com](mailto:Shahnozakomiljonovna1@gmail.com)

**Annotatsiya:** This article addresses the issues of enhancing financial transparency in utility service organizations through the digitalization of internal audit mechanisms . In recent years, the utility sector of the economy has witnessed increasing demands for the widespread adoption of information technologies, automation of settlement processes, and real-time monitoring . The digitalization of the internal audit system contributes not only to strengthening financial discipline but also to reducing the risk of corruption , improving the quality of services provided, and expanding opportunities for prompt and well-founded managerial decision-making . The study analyzes the advantages of using digital platforms in internal audit processes, existing shortcomings, as well as ways of introducing them into national practice based on advanced international experience . In particular, proposals have been developed for an indicator-based evaluation system, blockchain-based document management, and online audit monitoring mechanisms . It is scientifically substantiated that these approaches can significantly increase the level of financial transparency in the utility sector and strengthen public trust.

**Kalit so'zlar:** internal audit, digitalization, utility services, financial transparency, indicator-based evaluation, online monitoring, blockchain, managerial decisions, corruption risk, audit technologies.

**Abstract:** Ushbu maqolada kommunal xizmat ko'ssatuvchi tashkilotlarda ichki audit mexanizmlarini raqamlashtirish orqali moliyaviy shaffoflikni oshirish masalalari yoritilgan. So'nggi yillarda iqtisodiyotning communal sektorida axborot texnologiyalarini keng joriy etish, hisob-kitob jarayonlarini avtomatlashtirish va real vaqt rejimida monitoring olib borish talablarining kuchayishi kuzatilmoxda. Ichki audit tizimining raqamlashtirilishi nafaqat moliyaviy intizomni mustahkamlash, balki korrupsiya xavfini kamaytirish, xizmat ko'ssatish sifatini oshirish va boshqaruv qarorlarini tezkor hamda asosli qabul qilish imkoniyatlarini kengaytiradi. Tadqiqotda ichki audit jarayonlarida raqamli platformalardan foydalanishning ustunliklari, mavjud kamchiliklari hamda xorijiy ilg'or tajribalar asosida milliy amaliyotga tatbiq etish yo'llari tahlil qilingan. Xususan, indikatorli baholash tizimi, blokcheyn texnologiyasi asosidagi hujjat aylanishi va onlayn audit monitoringi mexanizmlari bo'yicha takliflar ishlab chiqilgan. Mazkur yondashuvlar orqali communal xizmatlar sohasida moliyaviy shaffoflik darajasini sezilarli oshirish va aholining ishonchini mustahkamlashga erishish mumkinligi ilmiy asoslangan.

**Keywords:** ichki audit, raqamlashtirish, communal xizmatlar, moliyaviy shaffoflik, indikatorli baholash, onlayn monitoring, blokcheyn, boshqaruv qarorlari, korrupsiya xavfi, audit texnologiyalar.



**Аннотация:** В данной статье освещены вопросы повышения финансовой прозрачности в организациях, предоставляющих коммунальные услуги, посредством цифровизации механизмов внутреннего аудита. В последние годы в коммунальном секторе экономики наблюдается усиление требований к широкому внедрению информационных технологий, автоматизации расчетных процессов и ведению мониторинга в режиме реального времени. Цифровизация системы внутреннего аудита способствует не только укреплению финансовой дисциплины, но и снижению риска коррупции, повышению качества предоставляемых услуг, а также расширению возможностей для оперативного и обоснованного принятия управлеченческих решений. В исследовании проанализированы преимущества использования цифровых платформ в процессах внутреннего аудита, существующие недостатки, а также пути внедрения в национальную практику на основе передового зарубежного опыта. В частности, разработаны предложения по системе индикаторной оценки, документообороту на основе технологии блокчейн и механизмам онлайн-мониторинга аудита. Научно обосновано, что данные подходы позволяют существенно повысить уровень финансовой прозрачности в сфере коммунальных услуг и укрепить доверие населения.

**Ключевые слова:** внутренний аудит, цифровизация, коммунальные услуги, финансовая прозрачность, индикаторная оценка, онлайн-мониторинг, блокчейн, управлеченческие решения, риск коррупции, технологии аудита.

## INTRODUCTION

In recent years, the modernization of the utility services sector in our country, the improvement of its financial efficiency, and the enhancement of service quality provided to the population have remained among the priority directions of state policy [2]. In particular, the activities of homeowners' associations and management organizations are directly related to the living standards of the population, the state of infrastructure, and social stability [6]. In this field, the proper formation of accounting policies and the presence of an effective audit system play an important role in ensuring financial transparency, fairness in pricing policy, and the continuity of service provision [1].

However, at present, there are various systemic problems in maintaining accounting policies and organizing audit processes in housing and communal enterprises [5]. The absence of methodological uniformity in accounting and the lack of sufficient details in current legislation lead to the incorrect application of accounting policies in practice [4]. At the same time, the perception of audit merely as a formal inspection, the weakness of internal control, and the lack of well-established criteria for indicator-based evaluation reduce financial discipline in these organizations [13].

Accounting policy should be regarded not only as a document concerning the technical aspects of accounting, but also as a factor determining the financial strategy of the enterprise, the basis for decision-making, and the effectiveness of the audit [7]. Therefore, the formation of accounting policies in accordance with modern requirements and ensuring their close integration with the audit system is considered one of the urgent scientific and practical issues [9].

## LITERATURE REVIEW ON THE TOPIC

The issue of digitalizing internal audit mechanisms has been actively studied in the global scientific and practical literature over the past decade. Lee T.A. (2020), in his research, emphasizes that the implementation of a financial monitoring system based on digital technologies, in particular blockchain and cloud computing, can significantly increase the accuracy and efficiency of internal audit [11].

The set of international auditing standards published by IFAC (2018) outlines the key principles of digitalized internal audit, including information security, real-time data analysis, and methods for generating automated reports [10]. These approaches play an important role in strengthening internal control and ensuring financial transparency.

OECD (2019) studies highlight the advantages of using digital auditing tools to improve transparency in public and utility sector activities, particularly in reducing corruption risks, increasing cost efficiency, and enhancing service quality monitoring [12].

In Uzbekistan's practice, scientific research in this field is relatively new. Nazarova R.Sh. (2023) provided recommendations for improving accounting and auditing processes through the digitalization of the internal control system [13]. Similarly, Xoliqov Sh.A. and Shamsiyeva D. (2022) conducted studies aimed at improving the accuracy of financial reporting and the quality of audit processes in the housing and utility services sector [6].



However, the analysis shows that national literature has not sufficiently addressed the complete digitalization of internal audit mechanisms, the development of an indicator-based evaluation system, and the establishment of blockchain-based document management. Therefore, research in this area can propose new scientific approaches aimed at improving financial transparency and ensuring management efficiency in Uzbekistan's utility services sector.

## RESEARCH METHODOLOGY

This study is aimed at an in-depth examination of the issue of enhancing financial transparency in utility service organizations through the digitalization of internal audit mechanisms, and the methodology includes the following stages:

### System analysis.

Internal audit processes, their role in the organization's management system, and their impact on financial transparency were comprehensively studied. Differences between traditional and digital forms of audit, their strengths and weaknesses were identified, and their efficiency levels were evaluated [11].

### Comparative analysis.

Uzbekistan's practice was compared with the advanced experiences of countries such as Russia, South Korea, Germany, and the United Kingdom. The technologies used in the digitalization of internal audit, regulatory frameworks, and indicator-based evaluation systems in each country were examined [12].

### Empirical research.

Existing audit processes, accounting policy documents, and financial reports of several utility service organizations were analyzed. Errors, delays, and misinterpretations were recorded to determine the quality of audit results [13].

### Expert evaluation.

Surveys were conducted among industry specialists – auditors, accountants, heads of management organizations, and IT experts. Based on the survey results, the advantages, risks, and implementation barriers of internal audit digitalization were identified [6].

### Regulatory and legal analysis.

Legislative documents, presidential decrees, cabinet resolutions, and international audit standards related to accounting, auditing, and digital transformation in the Republic of Uzbekistan were reviewed. Their compliance with modern requirements was assessed [10].

### Development of innovative approaches.

At the conclusion of the study, a conceptual model was developed for blockchain-based document management, indicator-based evaluation systems, and real-time audit monitoring [11].

This methodology enables the preparation of scientifically grounded proposals for the digitalization of the internal audit system and their practical implementation.

## ANALYSIS AND RESULTS

The conducted research has shown that the digitalization of the internal audit system in utility service organizations is a decisive factor in enhancing financial transparency [6]. The analysis identified the following key aspects:

### Current state of the internal audit system.

In 68% of the organizations studied, internal audit is carried out only at the level of annual inspections, that is, in a formal manner [13]. Audit plans are not clearly developed, indicator-based evaluation systems are not applied, and as a result, significant financial errors are not detected in a timely manner [6].

### Low level of digitalization.

Only 22% of the organizations have partially automated accounting and audit processes, which are mainly limited to electronic document management and the electronic submission of financial reports [10]. Real-time monitoring and blockchain technologies have almost not been implemented in practice [12].

### Regulatory and legal gaps.

There is no unified national methodology or technical regulation for the digitalization of internal audit [2]. As a result, organizations use different software and approaches, making it difficult to compare audit results [4].

### Comparison with foreign experience.

In South Korea and Germany, internal audit systems in the utility sector operate on the basis of digital platforms [12]. There, indicator-based evaluation criteria are mandatory, and audit processes are monitored in real time. These practices have shown significant effectiveness in enhancing financial transparency [11].



Results of expert evaluation.

Industry specialists noted that digitalization can reduce human-factor-related errors in audit processes by 40–60% [13]. Moreover, the likelihood of corruption risks and violations of financial discipline decreases sharply [12].

Scientifically grounded proposals.

Implementation of blockchain-based document management [11];

Development of indicator-based evaluation systems for each type of service [10];

Alignment of the internal audit platform with a unified state standard [2];

Expansion of real-time financial monitoring capabilities [12].

The results indicate that the complete digitalization of internal audit mechanisms will contribute to increasing financial transparency, enabling prompt and well-founded management decisions, and strengthening public trust in utility service organizations [6].

## CONCLUSION AND RECOMMENDATIONS

The conducted research has shown that the effectiveness of internal audit mechanisms in utility service organizations is currently insufficient [6]. The formal nature of audit processes in most cases [13], the absence of indicator-based evaluation systems [10], the low level of digitalization, and regulatory and legal gaps remain serious obstacles to achieving financial transparency [2].

Advanced foreign practices, particularly those of South Korea, Germany, and the United Kingdom, confirm that the digitalization of internal audit not only strengthens financial discipline, but also reduces corruption risks, accelerates the decision-making process, and increases public trust in service-providing organizations [11].

Recommendations:

1. Standardization of internal audit – develop unified national audit standards and indicator-based evaluation criteria for utility service organizations [2; 10].
2. Creation of a digitalization platform – implement a unified state platform operating on blockchain technology to enable real-time audit monitoring [11].
3. Improvement of the regulatory and legal framework – develop specific technical regulations and methodological guidelines for the digitalization of internal audit [3].
4. Enhancement of human resource capacity – introduce regular professional development programs on digital technologies for auditors and accountants [13].
5. Integration with management accounting – integrate internal audit results directly into the management accounting and strategic planning system [6].

The implementation of these recommendations will create the foundation for improving financial transparency and efficiency in the utility services sector, as well as enhancing service quality and strengthening public trust [12].

## REFERENCES

1. Law of the Republic of Uzbekistan "On Accounting," April 12, 2016, No. ZRU-404.
2. Decree of the President of the Republic of Uzbekistan No. PF-60, January 28, 2022 — "On the Development Strategy of New Uzbekistan for 2022–2026."
3. Resolution of the President of the Republic of Uzbekistan No. PQ-4747, June 3, 2020 — "On Measures to Improve the Management System."
4. Nazarova, R.Sh. (2023). Improving the Internal Control System under the Conditions of Accounting Digitalization. Society and Governance, No. 2, 39–44.
5. Kholiqov, Sh.A., & Shamsiyeva, D. (2022). Accuracy of Financial Reporting and Its Audit in Housing and Utility Services. Economics and Finance, No. 1, 27–34.
6. Bobomurodov, B.R. (2020). Modern Trends in Accounting and Practical Problems. Finance and Accounting, No. 4, 60–68.
7. Lee, T.A. (2020). Accounting Standards and the Public Interest. Routledge, UK.
8. OECD. (2019). Enhancing Transparency and Accountability in the Public Sector. OECD Publishing.
9. KPMG International. (2020). Audit Quality Indicators: International Benchmarking and Recommendations. [www.kpmg.com](http://www.kpmg.com)
10. Deloitte CIS. (2021). Audit Framework in Public Service Organizations: Comparative Practice. Moscow.
11. Ernst & Young. (2021). Best Practices in Accounting Policy Development for Housing Associations. London.
12. IFAC – International Federation of Accountants. (2018). Handbook of International Quality Control, Auditing, Review, Other Assurance, and Related Services Pronouncements.
13. Kim, S. (2021). Digitalization of Internal Audit: Experience of South Korea. International Accounting, No. 9, 15–22.
14. Jumayev, N.B. (2022). Improving the Effectiveness of Internal Audit Based on Digital Technologies. Economic Analysis and Forecasting, No. 3, 58–66.

# **muhandislik** **& iqtisodiyot**

ijtimoiy-iqtisodiy, innovatsion texnik,  
fan va ta'limga oid ilmiy-amaliy jurnal

**Ingliz tili muharriri:** Feruz Hakimov

**Musahhih:** Zokir Alibekov

**Sahifalovchi va dizayner:** Iskandar Islomov

---

**2025. № 9**

---

© Materiallar ko'chirib bosinganda "Muhandislik va iqtisodiyot" jurnali manba sifatida ko'rsatilishi shart. Jurnalda bosingan material va reklamalardagi dalillarning aniqligiga mualliflar ma'sul. Tahririyat fikri har vaqt ham mualliflar fikriga mos kelamasligi mumkin. Tahririyatga yuborilgan materiallar qaytarilmaydi.

"Muhandislik va iqtisodiyot" jurnali 26.06.2023-yildan  
O'zbekiston Respublikasi Prezidenti Adminstratsiyasi huzuridagi  
Axborot va ommaviy kommunikatsiyalar agentligi tomonidan  
№S-5669245 reyestr raqami tartibi bo'yicha ro'yxatdan o'tkazilgan.  
**Litsenziya raqami: №095310.**

**Manzilimiz: Toshkent shahri Yunusobod**  
**tumani 15-mavze 19-uy**





+998 93 718 40 07



<https://muhandislik-iqtisodiyot.uz/index.php/journal>



[t.me/yait\\_2100](https://t.me/yait_2100)