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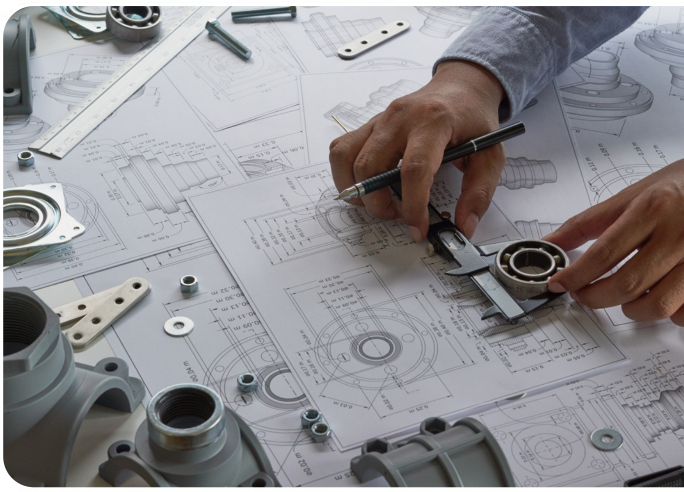

РЭУ.РФ РОССИЙСКИЙ ЭКОНОМИЧЕСКИЙ УНИВЕРСИТЕТ ИМЕНИ Г.В. ПЛЕХАНОВА ТАШКЕНТСКИЙ ФИЛИАЛ
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05.01.00 – Axborot texnologiyalari, boshqaruv va kompyuter grafikasi
05.01.01 – Muhandislik geometriyasi va kompyuter grafikasi. Audio va video texnologiyalari
05.01.02 – 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 usti 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 – Issiqlik 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 ishlatish
05.09.01 – Qurilish konstruksiyalari, bino va inshootlar
05.09.04 – Suv ta'minoti. Kanalizatsiya. Suv havzalarini muhofazalovchi qurilish tizimlari
10.00.06 – Qiyosiy 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'rsatish 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-avgustdagi 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

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MUNDARIJA

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

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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'rsatuvchi tashkilotlarda ichki audit mexanizmlarini raqamlashtirish orqali moliyaviy shaffoflikni oshirish masalalari yoritilgan. So'nggi yillarda iqtisodiyotning kommunal sektorida axborot texnologiyalarini keng joriy etish, hisob-kitob jarayonlarini avtomatlashtirish va real vaqt rejimida monitoring olib borish talablarining kuchayishi kuzatilmoqda. Ichki audit tizimining raqamlashtirilishi nafaqat moliyaviy intizomni mustahkamlash, balki korrupsiya xavfini kamaytirish, xizmat ko'rsatish 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 kommunal xizmatlar sohasida moliyaviy shaffoflik darajasini sezilarli oshirish va aholining ishonchini mustahkamlashga erishish mumkinligi ilmiy asoslangan.

Keywords: ichki audit, raqamlashtirish, kommunal 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 управленческих 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, управленческие 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].

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