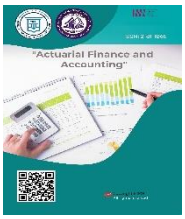

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PROSPECTS FOR THE USE OF DIGITAL TECHNOLOGIES IN AUDIT AND THEIR ENHANCEMENT

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Abstract: This article examines the prospects and opportunities for applying digital technologies in auditing. Key technologies that can significantly impact the transformation of auditing activities by optimizing and simplifying audit procedures have been identified. The dynamics of implementing information and communication technologies in organizations are analyzed, and the relevance of their impact on audit transformation is specified. A forecast of possible development paths in the auditing field under the influence of digital technologies is also provided. The influence of information technologies on the volume of audit functions performed, depending on the qualifications of specialists, is studied. Special attention is given to exploring the potential of modern digital solutions in auditing and possible directions for their integration. Based on the analysis, a conclusion is drawn about the likely transformation of auditing firms' activities.

Keywords: digital technologies, audit, transformation of audit activities, optimization of audit procedures, information and communication technologies, implementation of technologies, qualification of specialists, integration of digital solutions, development of audit, transformation of audit companies.

Introduction

Modern digital technologies play a key role in transforming traditional audit methods. Amid the rapid growth in data volume and the need for prompt information analysis, the use of digital technologies has become a crucial element in improving the quality and transparency of audit processes. Globally, innovations like artificial intelligence, automated data processing systems, blockchain, and cloud technologies are actively being employed to simplify, accelerate, and enhance the accuracy of auditing activities.

In the Republic of Uzbekistan, this process is also rapidly advancing. Government programs aimed at the digitalization of the economy and active development of the IT sector create favorable conditions for the adoption of innovations in auditing. Supported by international organizations, the Uzbek government is taking measures to establish a regulatory framework that promotes the integration of digital technologies in auditing and accounting. Notably, the Presidential Decree approving the "Digital Uzbekistan-2030" Strategy and measures for its effective implementation opens up new opportunities for companies and enhances trust in their financial reporting [1]. This involves implementing technologies such as artificial intelligence, Big Data, blockchain, and cloud computing, which are especially critical for auditing where high accuracy and data processing speed are required. However, it also presents several challenges, with the primary concern being the protection of confidential information from leaks and cyberattacks, which is particularly important for audit data that often contain financial and personal information. Security breaches can severely damage the reputation of both the company and the auditing firm.

Digitalization has marked a new stage in evolutionary development, requiring companies to make adjustments and invest in modern systems and technologies for data analysis. This enables businesses to unlock their potential and better understand the needs of target markets. The most popular technologies that companies are investing in today include artificial intelligence (AI), blockchain, data analytics, the Internet of Things (IoT), and robotic process automation (RPA).

Additionally, many financial institutions are updating outdated systems by migrating to cloud storage, which offers significant advantages: cost reduction, improved integrated security, and high flexibility and scalability. This approach to working with Big Data and analytics is considered more efficient and cost-effective.

Prospects for the Development of Digitalization in Auditing

The prospects for digitalization in auditing appear promising as new technologies continue to transform the industry, making processes more efficient and accurate. Here are some key directions that define the future of digital auditing:

1. **Continuous Auditing.** Digitalization enables the implementation of continuous auditing—a process that allows for real-time analysis of financial data. Continuous auditing eliminates the need to work with sample data, enabling auditors to monitor and verify transactions as they occur. This enhances audit accuracy and helps identify discrepancies promptly, improving the quality of financial reporting.
2. **Artificial Intelligence and Machine Learning.** AI and machine learning can automate routine tasks, such as data analysis and anomaly detection. The use of AI allows for quicker identification of potential risks and improves the assessment of financial stability. Machine learning systems can accumulate knowledge from vast data

volumes, helping them adapt and improve accuracy. This frees auditors from repetitive tasks, allowing them to focus on strategically important aspects of the audit.

3. **Blockchain Technology.** Blockchain offers high levels of transparency and data security, making it a promising tool for auditing. Since blockchain stores data in an immutable format, it eliminates the possibility of record tampering and increases data reliability. In the future, blockchain technology could be used for automatic transaction confirmation and operation monitoring, enhancing audit quality and reducing fraud risks.
4. **Robotic Process Automation (RPA)** enables the automation of repetitive tasks, such as data collection and processing, speeding up audits and minimizing errors. Using RPA helps reduce operational costs and increases data processing speed. In auditing, robotic automation can be used for report generation, document analysis, and other time-intensive tasks.
5. **Big Data Analytics.** Big Data analytics provides auditors with access to large data sets that offer a more comprehensive view of a company's financial state. This enables deep and precise analysis, allows for the identification of hidden trends, and improves decision-making. Big Data analytics makes it possible to perform complex analyses, enhancing the accuracy and objectivity of audit opinions.
6. **Cloud Technologies.** Transitioning to cloud technologies allows for remote data access and reduces IT infrastructure costs. The cloud offers security and scalability, which is especially important when working with large data volumes. Auditing firms can store data and applications in the cloud, simplifying access to information and enabling virtual audits.
7. **Cybersecurity and Data Protection.** With the growth of digital information, the need for data protection increases. Auditing firms are implementing advanced cybersecurity systems to prevent leaks and ensure data confidentiality. Strengthening security measures and developing standards for data handling help minimize cyber risk, making this an essential focus in auditing digitalization.

Automation is a particularly important component of digitalization for companies providing financial services. Banking and insurance, in particular, are highly transactional industries that generate vast amounts of data. Automated processing of this data significantly enhances their efficiency, increases transparency, and enables the use of technologies such as AI and data analytics to retain and expand their customer base while simultaneously managing their risks [2].

As digitalization progresses, companies handle vast amounts of information, necessitating updates in audit and accounting approaches. In this regard, two directions for the development of the auditor and accountant professions stand out:

- **Adaptation to New Environmental Conditions and Requirements.** This approach implies radical changes in accounting and audit concepts, utilizing the latest technologies such as automation and AI, which enable more effective data management and increase transparency in analysis.

- **Preservation of Classic Approaches.** This path involves adhering to traditional methods; however, there is a risk of the profession becoming outdated, which may lead to its integration into other fields or dilution within other professions.

Table 1 – illustrates the impact of the "informatization factor" (digital technology implementation) on the scope of functions performed in accounting and auditing, depending on employee qualification levels.

Qualification Level	Degree of "Informatization Factor" Impact	Change in Function Scope
Junior Specialist / Assistant	High. Digitalization significantly reduces time on routine operations.	Automation reduces the volume of simple, repetitive tasks, such as data entry and compliance checks. Minimal involvement from junior specialists is required.
Mid-Level Specialist	Medium. The impact of informatization on analytical tasks is noticeable but limited.	Informatization decreases the amount of data processing, but the responsibility for interpreting results and working with analytics systems increases.
Senior Specialist / Manager	Moderate. The main impact is accelerating analysis and improving data accuracy.	The focus is on analyzing results, identifying risks, managing processes, and controlling automated procedures.
Executive / Senior Manager	Low. Informatization primarily optimizes data access and monitoring.	The volume of strategic and managerial tasks remains the same, but the speed and quality of decision-making improve.
Senior Executives / Partners	Minimal. Digitalization mainly affects reporting and control processes.	The focus shifts to strategic decision-making based on data and digital analytics. Informatization enhances information availability for strategic analysis and risk management.

Overall, the lower the qualification level, the greater the impact of the "informatization factor" on task scope, as routine operations are automated. For higher-qualified employees, analytical and strategic functions increase in importance, where informatization plays a supporting role.

Like their client companies, the leadership of Big Four (Big4) firms is investing in the latest technologies and methods. These include the flexible and intelligent application of artificial intelligence, data analytics, optical character recognition, RPA, cloud platforms, drones, and various other new technologies to better understand both IT processes and the business processes followed by organizations. For instance, one of the Big Four firms providing audit services—EY (Ernst & Young)—has already implemented and offers its clients a service called EY Digital Audit, representing a fundamentally new approach to auditing based on networking and data [3].

Thanks to the automation of certain procedures and the implementation of technologies like artificial intelligence and machine learning, the administrative burden on companies during audits is reduced. This frees up time for auditors, allowing them to focus on analytical work, risk assessment, and forming expert opinions.

The Accounts Chamber actively collaborates with international organizations, such as the World Bank and UNDP, to exchange experience in digitalization and improve qualifications. In particular, agency inspectors undergo training in international audit standards with an emphasis on IT technology use.

These steps are aimed at strengthening budget expenditure control and improving audit quality through digital technology, contributing to financial oversight transparency and optimization of audit processes.

Blockchain provides the capability to securely store data on financial transactions, legal obligations, and property rights, ensuring full transparency and auditability while effectively protecting against hacking, tampering, and forgery. Built on a sequential chain of blocks, each linked to the previous one by a digital signature, blockchain technology, when implemented on a regulatory basis in accounting, represents a promising and effective tool for enhancing data transparency and security (Figure 2) [4].

The essence of the tool is presented in the form of a diagram.

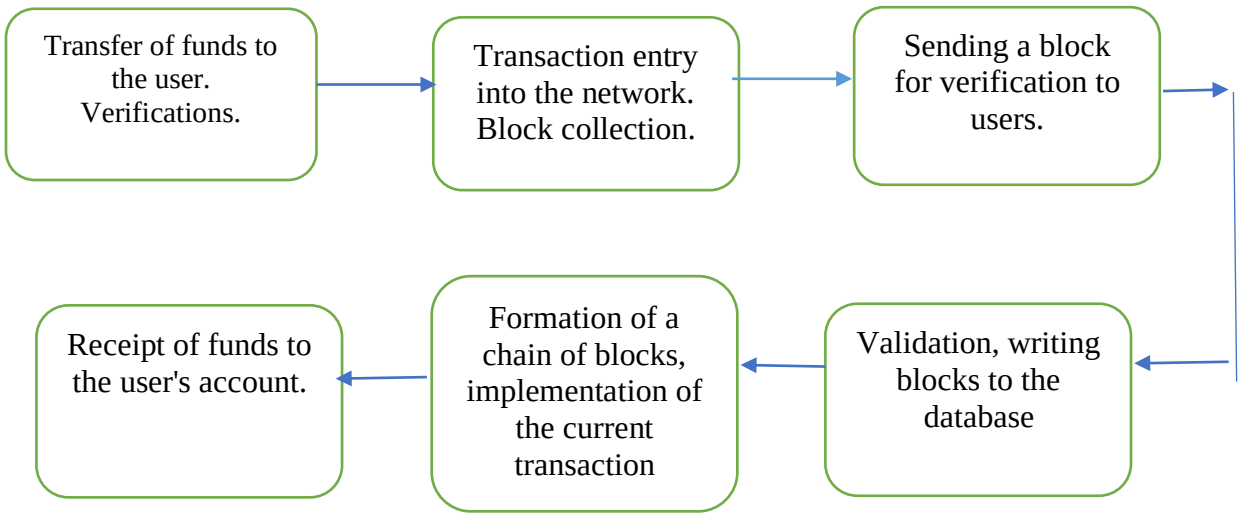

Figure 2 – Scheme of application of blockchain technology in financial transactions.

All of the above technologies should eventually lead to the following changes in the activities of audited organizations, which will also affect audit technology: - Triple entry in

the accounting, namely, the recording of data for each debit and credit transaction of an organization with a third entry in the state or international register and constant access to the accounting records of each registered organization for the regulatory authorities, what will demonstrate financial transparency of the activities of legal entities, permanent control, avoidance of errors, reduction of financial risks, reduction of costs for obtaining and checking documentation; - continuous digital audit in place of discrete and creating the necessary conditions for its conduct at each stage of production; – Transition from selective observation of specific accounting operations to the verification of the entire array without loss of quality and with minimal risk of significant distortion;- «smart» The use of contracts and electronic signature will reduce the time and labor costs of fulfilling the terms of the contract; - cloud storage of all data of the organization will save money on the operation of power servers; - The simplification of the flow of assets within the organization will allow access to financial and management information in real time;- Elimination of corruption, embezzlement and unconfirmed expenses and ensuring full transparency of information online[5].

Table 2 – Forecast for the Development of Digital Technologies in the Audit Field [1].

Key Aspect	**Description**	**Forecast**
Impact of Digital Technologies	Implementation of AI, machine learning, and big data analytics to automate routine tasks and improve accuracy.	Will increase, allowing auditors to focus on strategic analysis and consulting.
Transformation of Audit Activities	Adoption of digital platforms to enhance efficiency and reduce costs.	Auditors will shift from manual checks to automated data analysis.
Optimization of Audit Procedures	Automation of tasks like data sampling and transaction verification.	Procedures will become simpler, audit time will be reduced, enabling focus on risk analysis.
Information and Communication Technology	Use of cloud platforms and systems for secure data exchange.	Increased ICT implementation for faster information exchange and data protection.
Specialist Qualifications	Increasing demand for skills in data handling, programming, and IT.	Auditors will require training in analytics and IT to stay competitive in the market.
Integration of Digital Solutions	Use of technologies like blockchain to ensure transparency and simplify	Technologies will be implemented to track transactions and conduct

[1] Development of authors

	auditing.	real-time audits.
Development of New Directions	Emergence of environmental and social audits with a focus on non-financial risks.	Data analysis and forecasting with digital tools will enhance the importance of sustainable development.
Transformation of Business Models	Shift to integrated services including risk assessment and strategic planning.	Companies that adapt faster to digital changes will gain a competitive edge in the market.

These aspects reflect the direction in which auditing will develop, relying on digitalization to improve efficiency and create new opportunities. The forced transition of audit companies to remote working due to restrictions imposed by the Government of the Republic of Uzbekistan had a significant stimulating effect on the active implementation of digital technologies in audit procedures. Modern mobile technologies and communication tools, enabling data transmission from any place on the planet, the use of electronic digital signatures, and electronic document management, proved effective during self-isolation and confirmed the possibility and necessity of further digitalizing audit activities [6].

Conclusion.

All of the above emphasizes the need to reassess the approach to remote and digital auditing. Creating an effective electronic document management system, organizing video communication, secure cloud storage, and using modern technologies for data authorization and protection, including cryptography, can significantly reduce costs and the duration of audit procedures. Companies that are the first to implement these solutions will gain a substantial competitive advantage.

The research identified the prospects for integrating digital technologies into auditing, outlining the main areas where their application enhances the efficiency, speed, and quality of audit processes. However, as long as the audit process focuses on confirming the authenticity of documents and data accuracy, which requires personal interaction, a full transition to remote and digital formats remains complex. Nevertheless, some audit procedures will likely be conducted remotely, which will reduce audit costs for both audit firms and their clients.

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