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PRE-ASSESSMENT OF FINANCIAL AUDIT DIGITAL TRANSFORMATION IN THE RA

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Abstract: The rapid development of digital technologies and the introduction of new tools for processing financial information are significantly changing the methods and principles of organizing financial audits. The use of artificial intelligence, big data analysis, automation of robotic processes and cloud technologies creates new opportunities for increasing the efficiency of audit processes, assessing the reliability of financial information and timely identifying risks. At the same time, digital transformation poses a number of methodological, technological, organizational and professional issues, the solution of which is an important prerequisite for ensuring the quality, independence and credibility of the audit. The article substantiates the need for digital transformation of financial audit and presents the prerequisites for its effective implementation.

Keywords: financial audit, digital transformation, cybersecurity, artificial intelligence, audit quality

JEL code: M42

Research aims: identify the benefits and risks of digitalizing financial audits and develop a stakeholder-oriented audit digitalization pre-assessment methodology.

Research novelty: developed a methodology for pre-assessment of audit digitization aimed at beneficiaries, taking into account the multi-vector impact factors of the use of digital tools on audit functions.

Introduction

Currently, the need for a comprehensive approach to the digital transformation of financial auditing is emphasized, which should include the modernization of technological infrastructure, the improvement of data management systems, the strengthening of information security, the development of professional capabilities and the alignment of audit methodology with the requirements of the digital environment. The effective use of digital technologies can contribute to increasing the time and cost efficiency of the audit, a more complete assessment of risks and the strengthening of confidence in financial statements.

At the same time, the introduction of technologies should be considered not as an end in itself, but as a means of improving the quality of the audit, the effectiveness of which depends on the maintenance of professional judgment, independence, ethical principles and proper control. The digital transformation of financial auditing is the transformation of audit methods, tools and organizational processes through the use of digital technologies. It involves the introduction of artificial intelligence (AI), big data

analytics, robotic process automation (RPA), blockchain, cloud technologies and other digital solutions.

Digital transformation not only increases the technological sophistication of audit processes, but also changes the approaches to verifying financial information, collecting audit evidence, identifying risks, and forming professional judgments. However, on the other hand, the digital transformation of financial auditing cannot function effectively without the formation of the necessary prerequisites, which are currently acute in the Republic of Armenia.

Research methodology

The research used the methodology of scientific abstraction, critically assessing the advantages and disadvantages of the digitalization process of financial audit. Comparative assessments of the digitalization of financial instruments were given by analyzing the professional literature and, based on this, the possibilities of introducing advanced experience in digitalization of financial audit in the Republic of Armenia were discussed. Systematic comments were given on the risk assessments of digitalized financial audit implementation and the prerequisites for assessing the reliability of organizations' financial statements in the Republic of Armenia using modern digital technologies were identified.

Literature review

Digital tools are primarily distinguished by the fact, that they make it possible to automate repetitive operations, document processing, data comparison and calculation verification. And all this reduces the time for conducting a financial audit and reduces the amount of manual work. Comprehensive analysis of financial

data is also referred to as digital financial audit analysis. Big Data technologies make it possible to analyze large volumes of financial transactions, almost eliminating the limitations of traditional sample audits (Muh. Ardiansyah Syam et., al. 2025).

Also important is the fact, that the introduction of digital audit enables early detection and prediction of risks. Thus, artificial intelligence and machine learning algorithms provide timely alerts about unusual changes in financial indicators, deviations from transaction patterns, and potential risks related to fraud (Annor A. S. 2020). In addition, the digitalization of financial audit reduces the impact of human error on inspections. Automation of calculations, data entry, and document reconciliation reduces mechanical errors and increases the consistency of audit procedures. The professional literature also suggests, that digital technologies allow for more frequent monitoring of financial transactions and control processes, not only at the end of the reporting period (Hasan, A. R. 2022). This expands the scope of financial audit continuity. In addition, digital technologies help strengthen the traceability of audit evidence (Hezam, Y. A., et., al. 2023). Thus, blockchain systems and digital registration technologies contribute to the traceability of transaction history, preserving records of changes and creating an environment for effective control of the integrity of financial and economic data (Smith, S. S. 2018). Moreover, cloud technologies allow auditors to have remote access to the necessary documents, exchange information and organize the joint work of different audit teams.

However, in the professional literature, authors express concern about the risks of digital transformation of financial

auditing, noting that the use of digital technologies, in addition to the advantages, also creates new risks that can affect the independence, credibility and quality of the audit (Tharouma, S., & Oudai, M. 2022). First of all, this concerns cybersecurity and data privacy risks. The digitalization of financial data increases the risk of unauthorized access to the audit operating system, information leakage, cyberattacks and data modification, which in turn creates financial and copyright losses. In addition, some artificial intelligence models do not reveal the full logic of their conclusions (Wan Mohamad Noor, et. al., 2024).

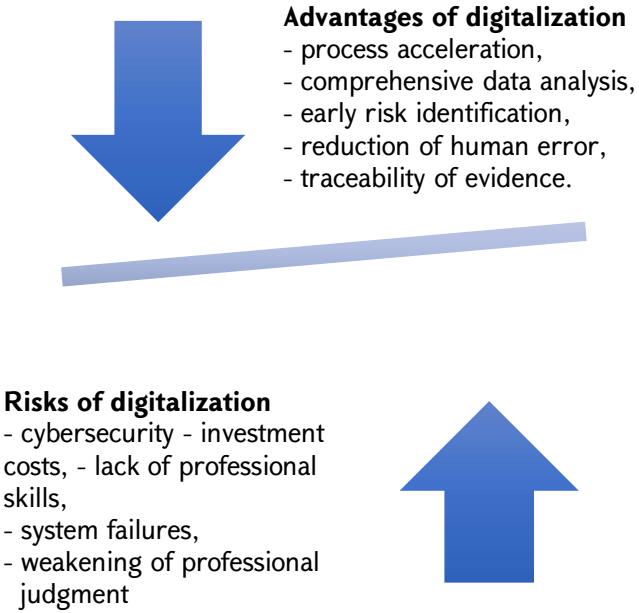


Figure 1. Summary of the benefits and risks of digitalization of financial auditing
Source: *Author's own work*

As a result, the auditor may find it difficult to justify why the system classified a particular transaction as risky. The digitalization of financial auditing is accompanied by an increase in investment and technological costs. The acquisition, maintenance, software updates and training of specialists require significant financial resources. Therefore, they can become a significant limitation for medium and small audit firms (Abdullah, A. A. H., & Almaqtari, F. A. 2024).

The implementation of a digital financial audit is also accompanied by technological dependence and risks of system failures. Therefore, the professional literature suggests that software errors, system failures, database unavailability and dependence on technology providers can disrupt the continuity of audit processes (Angeles, E. J., et. al., 2023). The risk of weakening professional judgment in a digital financial audit is also considered a jeopardy factor. The authors note, that excessive trust in automated systems can reduce the role of the auditor's critical thinking and professional skepticism (Guo, R., Jia, Y., & Shentu, L. 2024). Therefore, the conclusion given by the algorithm should not be automatically accepted as sufficient audit evidence and should be viewed in parallel from the perspective of critical thinking (Abena Serwaa Annor 2020). Thus, in the transition process to digitalization of financial audit, the priority is to balance the benefits and risks of digitalization (see Figure 1).

Figure 1 shows that the digital transformation of financial auditing is a process with a dual impact. On the one hand, it expands the capabilities of financial information analysis, increases the efficiency of audit procedures and contributes to the timely

detection of financial risks. On the other hand, it raises issues of data security, algorithmic transparency, technological dependence and the preservation of professional judgment. Therefore, the effectiveness of digital transformation should be assessed not only in terms of technological investments or reduction of working time, but also in terms of their impact on the quality of audit evidence, audit risk, professional independence and the reliability of financial statements (Al-Sayyed, S. M. 2024).

Research results

The professional literature shows different approaches when assessing the digitalization process in financial auditing (Herath, S. K., & Herath, L. M. 2024). Surveys conducted among auditors show that specialists mostly consider the effect of digitalization in the context of increasing audit efficiency (85%), then in the area of data accuracy (83%). At the same time, 75% of respondents express the opinion, that digitalization requires large investment costs, and 65% are concerned about cybersecurity risks (see Figure 2).

However, in all cases, an important advantage of digitalization of financial auditing is the provision of real-time audit reports, and why not, also the conclusion (see Figure 3).

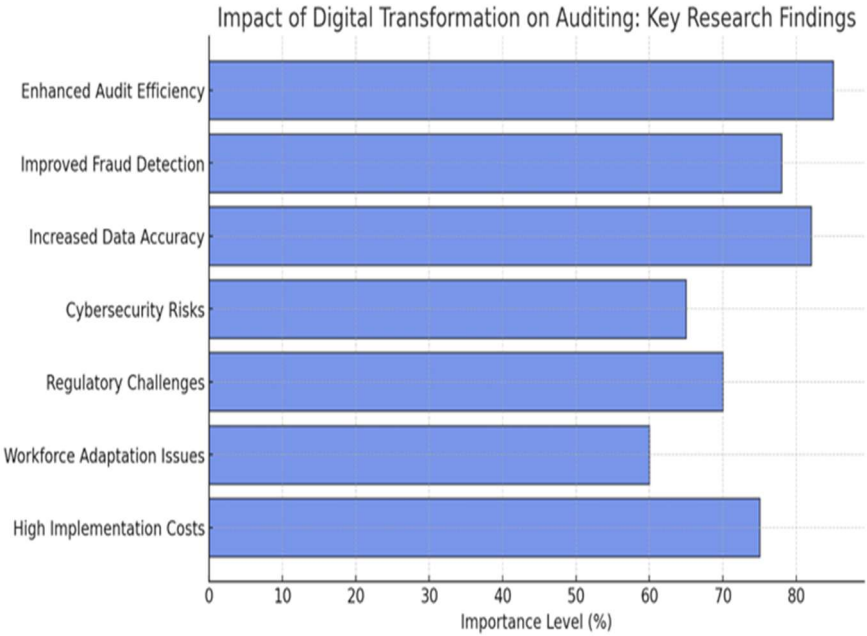


Figure 2. Impact of Digital Transformation on Auditing
Source: *Muh et al., 2025*

Therefore, when discussing the prerequisites for digitalizing financial auditing, it is necessary to consider not only technological capabilities, but also the size of organizations, financial resources, and human capital involved in the process (Vitali, S., & Giuliani, M. 2024).

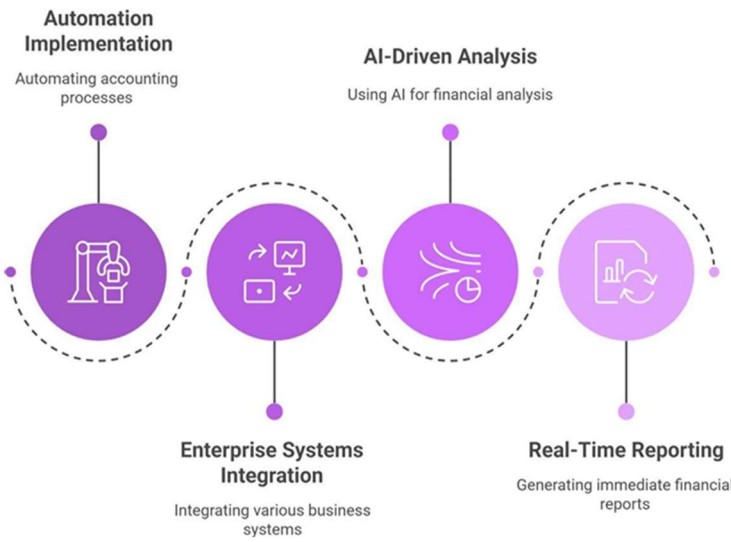


Figure 3. Flowchart of Digitalized Financial Reporting Process
Source: *Abena Serwaa Annor (2020)*

It should be noted, that as of 30.06.2026, 33 organizations had the right to carry out auditing activities in Armenia, whose gross revenue in 2025 already amounted to about 16.2 billion drams (Chamber of Auditors and Expert Accountants of Armenia, www.caaa.am). The surveys conducted among them on a 10-point scale regarding the advantages and risk factors of digitalization of financial audit, on average, present the following picture (see table 1).

Table 1. Results of the survey on the benefits and risk factors of digitalization of financial audit

Source: *Author's own work*

Benefits of digitalization (A)	Point	**Risks of digitalization (B)**	Point
Acceleration of audit processes	9	Cybersecurity	10
Early identification of audit risks	4	Cost of digitalization investment	10
Reduction of human field error	5	Professional skills shortage	6
Ensuring traceability of evidence	9	System operattion failures	5
Real-time reporting	8	Weakening of professional judgment	3
Total (∑A)	35	Total (∑R)	34

Consequently, audit organizations give different assessments of the digitalization of their activities, based on their capabilities and the scale of their activities. Therefore, it is important for stakeholders to pre-assess the feasibility of the digitalization process of financial auditing, which we propose to implement on the following scale:

Range	**Digitalization Pre-Evaluation beneficiaries**
$\sum A/\sum R > 1,5$	excellent assessment of beneficiaries
$1,2< \sum A/\sum R < 1,5$	high assessment of beneficiaries
$1,0 <\sum A/\sum R <1,2$	satisfactory assessment of beneficiaries
$\sum A/\sum R < 1,0$	negative assessment of beneficiaries

Therefore, in the case of digitalization of financial audit, we emphasize the importance of a preliminary assessment of the

feasibility of this process by the beneficiaries, which we propose to implement in the following steps (see Figure 4):

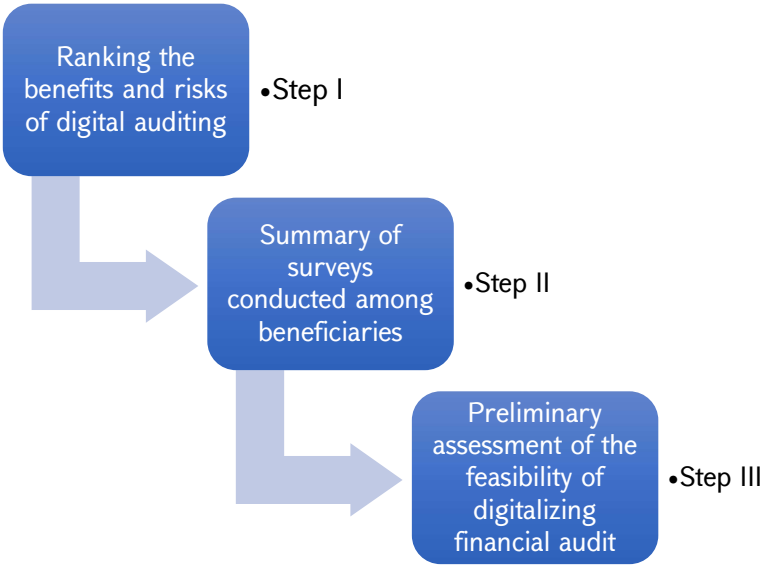


Figure 4. The proposed steps for the preliminary assessment of the feasibility of the digitalization of financial audit by stakeholders.
Source: *Author's own work*

Therefore, the preliminary assessment of the feasibility of digitalization of financial audit can be expressed in different ways, based on the number of employees of the audit organization, the scale of activities, the qualitative characteristics of employees, and the financial resources available. However, by applying a summary scale for the preliminary assessment of digitalization of financial audit, it is possible to smooth out the differences in these assessments, even in the presence of both the composition and structure of various positive and negative factors presented by different stakeholders.

Conclusion

The digitalization of financial auditing is accompanied by positive and negative factors, which are taken into account by the beneficiaries. Therefore, before embarking on this process, the beneficiaries try to orient themselves and need a preliminary assessment of the feasibility of digitalization.

Therefore, in case of starting on digitalization, audit organizations try to understand in which level of feasibility of this process they are (excellent, high, satisfactory, negative), in order to organize the transition from traditional audit activities to digitalization as efficiently as possible. Moreover, different audit organizations assess the advantages and disadvantages of digitalization in different ways, which requires a methodology for pre-assessment of the feasibility of digitalization of financial audit, which will take into account the various consequences of the use of digital technologies and the possibilities of their further management. In this regard, we emphasize the use of a pre-assessment step of the financial audit digitalization process by beneficiaries, which creates an opportunity to record the position of the audit organization on the threshold of digitalization.

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ՖԻՆԱՆՍԱԿԱՆ ԱՈՒԴԻՏԻ ԹՎԱՅԻՆ ՓՈԽԱԿԵՐՊՄԱՆ ՆԱԽԱԳՆԱՀԱՏՈՒՄԸ

Մխիթար Մինասյան
Հայաստանի պետական տնտեսագիտական համալսարան
հայցորդ

Բանալի բառեր - ֆինանսական աուդիտ, թվային փոխակերպում, կիբեռանվտանգություն, արհեստական բանականություն, աուդիտի որակ

Թվային տեխնոլոգիաների արագ զարգացումը և ֆինանսական տեղեկատվության մշակման նոր գործիքների

ներդրումը էականորեն փոխում են ֆինանսական աուդիտի իրականացման մեթոդներն ու կազմակերպման սկզբունքները: Արհեստական բանականության, մեծ տվյալների վերլուծության, ռոբոտացված գործընթացների ավտոմատացման և ամպային տեխնոլոգիաների կիրառումը նոր հնարավորություններ են ստեղծում աուդիտորական գործընթացների արդյունավետության բարձրացման, ֆինանսական տեղեկատվության արժանահավատության գնահատման և ռիսկերի ժամանակին բացահայտման համար:

Միաժամանակ թվային փոխակերպումն առաջացնում է մի շարք մեթոդաբանական, տեխնոլոգիական, կազմակերպական և մասնագիտական հիմնախնդիրներ, որոնց լուծումները կարևոր նախապայման են աուդիտի որակի, անկախության և վստահելիության ապահովման համար:

Հոդվածում հիմնավորվում է ֆինանսական աուդիտի թվային փոխակերպման անհրաժեշտությունը և ներկայացվում դրա արդյունավետ իրականացման նախագնահատման առաջարկվող մեթոդաբանություն:

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