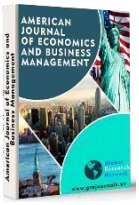

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Article

The Process of Digitalization of Audit Inspection in International Practice and Issues of Its Application in the Practice of Uzbekistan

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Abstract: In modern conditions, audit firms require high-quality software tools that expand their capabilities when applying statistical methods, collecting audit evidence, sampling, building an audit, etc. in a word, allowing to reduce the time for the audit as a whole. The article discusses the main specialized computer programs that increase the speed and quality of the audit. This article discusses the features of the use of information systems in the audit. The advantages of an automated approach to the performance of an audit assignment are primarily related to the automation of the auditor's routine operations, which reduces labor costs, avoids mechanical errors, reduces audit time, and maintains the quality of work performed.

Keywords: audit, computer program, application possibilities, automation of audit processes, information systems in audit, digitalization of audit, information technology in audit activities.

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1. INTRODUCTION

Any auditing organization nowadays feels compelled to automate its operations. In addition to preventing audit errors, modern audit tools save time, and enable the creation of databases and the creation of audit reports of varying complexity based on them. It is preferable to get specialized software from reputable companies with a wealth of experience in automating software audits, licensing, and quality certifications. Considering the audit organization and the audit objects it is meant to check, or paying attention to the field it belongs to, is essential when selecting a program.

In this regard, it is worth noting that in the decision of the President of the Republic of Uzbekistan dated September 19, 2018 "On measures to further develop auditing activities in the Republic of Uzbekistan" PQ 3946, audit organizations and republican public associations of accountants and auditors the task of developing the "Audit" software complex of the Ministry of Finance of the Republic of Uzbekistan for mutual electronic cooperation

with associations, and in accordance with it, the creation of the web service "Personal cabinet of the auditing organization" and "Personal cabinet of the public association of auditors" The "Audit" software complex was developed and put into practice. This is one of the macro-level measures to ensure the transparency of the activity of audit organizations and the introduction of information and communication technologies in the sphere of their cooperation with state bodies. However, today, it is one of the requirements of international standards to organize and conduct an audit in a fully computerized environment.

We believe that the use of computer programs during the preparation, execution, and completion phases of an audit constitutes auditing in a computer environment. Special programs are underutilized during audit inspections, according to surveys and analyses done recently on the usage of information technology in auditing activities.

The procedure for using automated software in auditing is expressed in the following documents of the International Auditing Practice Committee of the International Federation of Accountants:

International Auditing Standards "Auditing in a computer information systems (CIS) environment" (ISA "Auditing in a computer information systems (CIS) environment");

ISA "Risk assessment and internal control (CIS) characteristics and considerations" entitled "Internal control and audit risk assessment taking into account the characteristics of the computer information environment";

"Computer assisted audit techniques" (ISA "Computer assisted audit techniques").

In turn, the above programs used in audit practice include many modules that ensure the automation of inspections. They include the planning support module that ensures the formation of the audit schedule, the audit plan creation and audit tasks, and the audit modules embody the main capabilities of the programs.

In the conditions of further deepening of economic reforms, acceleration and liberalization of the market economy in the Republic of Uzbekistan, ensuring the sustainability of the private business sector, the audit system is of great importance. In recent years, as a result of the improvement of legislative documents in the field of auditing, positive changes have been taking place in the audit services market of our Republic. In particular, as of December 31, 2022, the number of audit organizations increased by 30 (31%) to 126 compared to December 31, 2021, and the number of auditors increased by 230 (35%) to 881. Of these, 27 international audit organizations are members of international companies and associations, 4 of which are subsidiaries of audit companies (Big Four).[1]

2.RESEARCH METHODOLOGY

The study of historical, organizational, economic, and regulatory features of the subject of research is based on the use of dialectic methods. In the monographic study, the methods of grouping, comparison, scientific thinking, economic, statistical, digital and analytical methods were used. Also, constructive methods were widely used in the presentation of the study and the results obtained.

3. RESULTS AND DISCUSSIONS

The Oxford Research Institute of Economics and Huawei jointly released the Digital Spread Report, which projects that by 2025, the global digital economy would have grown to $23 trillion and account for 24.3 percent of the world's gross domestic product.[2]

The trend of businesses in a time of dramatic change is reflected in the digitalization of audit, as auditors are affected by the evolution of the operating environment, disruptions

[1] www.mf.uz/qr/news/category/yangiliklar/post-1009

[2] . Abdurakhmanov K.A., Academician of the Academy of Sciences of Uzbekistan - “Digital Uzbekistan-2030 will lead out of the laggards” Narodnoe slovo, 04/10/2020, narodnoeslovo.uz, www.xs.uz/ru)

in the business cycle, changes in organizational models, and the general digitization of processes. As technology advances, auditors' methods of carrying out their duties also change:

- improving networking;
- automation is introduced;
- frees up additional time to analyze areas that require subjective judgment;
- improved quality of audit, analysis and conclusions[3]

By boosting confidence and trust, especially using "blockchain" technology, digital audit helps auditors achieve their mission of "improving business - improving the world" by facilitating communication in a complex business environment. The extra time that comes with digitalizing accounting and auditing gives auditors the chance to meet the standards set forth by various regulations.

For instance, the "Regulation on the criteria for evaluating the effectiveness of joint-stock companies and other business entities with a state share" was approved by the Decree of the Cabinet of Ministers of the Republic of Uzbekistan in 2015. This regulation established "Key Performance Indicators" (KPI) and "Integral Performance Ratios" (IQI). Article 36 of this Regulation states that, as a separate additional subject of the audit agreement at the end of the year, an audit organisation must verify the calculation of KPIs, IPIs, and the percentage of their implementation by offering professional consulting services.[4]

Currently, automation of processes occupies one of the most essential places in every area. The direction of introducing artificial intelligence into the main business processes of many companies in various fields of activity is actively developing, "smart" robot-advisors are appearing, complex artificial neural networks are being used to determine the dynamics of quantitative and qualitative indicators of business. They're making models and other things.

As many facets of the economy evolve, auditing is also changing in several ways. Naturally, many tasks still require human intervention because the audit process, its structure, and the volume of actions carried out cannot be fully formalised. As a result, it is no longer feasible to rely solely on artificial intelligence to verify the company's financial reports.

The need to form a professional judgment regarding each client remains. However, every year, new information technologies are developed and put into practice, which allow to transfer part of the work to machines.

Information technologies that enable optimization of audit procedures are also being introduced to the activities of audit organizations. The implementation of automation processes in the work of the auditor is provided by the technological possibilities presented in the directions in Figure 1.

[3] How the digitalization of audit reflects the trend of changing companies in an era of change. Author EY Global. 09/01/2020

[4] Regulations on the criteria for evaluating the effectiveness of activities joint-stock companies and other business entities with a state share" - PKM N 207 of 07/28/2015

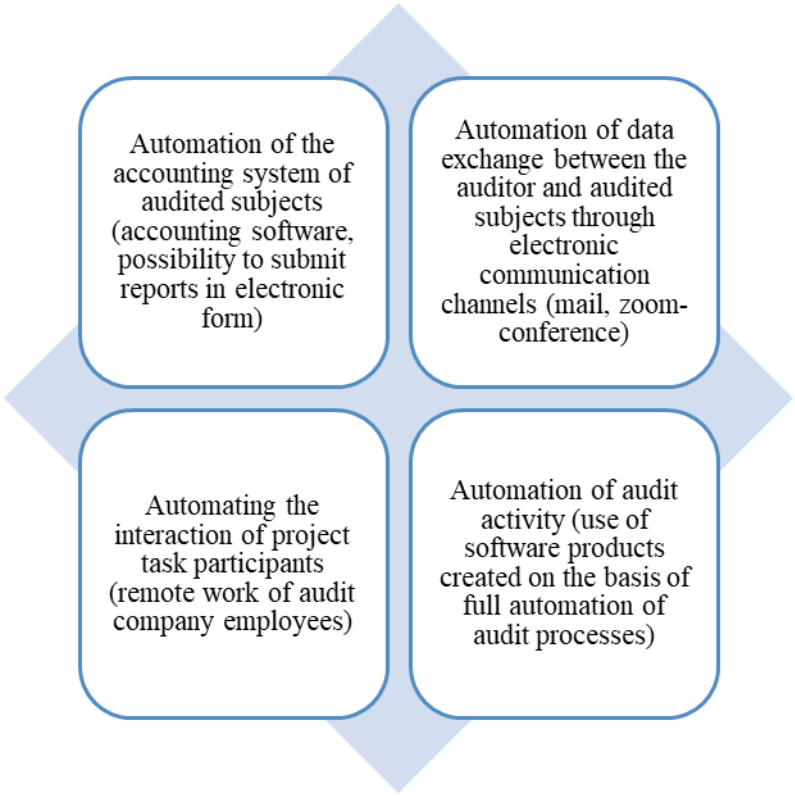

Figure 1. Technological possibilities of introducing automation processes in auditor's work[5]

The technological possibilities of introducing automation processes into the auditor's work, shown in Figure 1, are the high speed of obtaining, exchanging and using the information necessary for conducting audit procedures, including the introduction of electronic document circulation, using cloud storage provides. In addition, the use of information systems at work leads to a decrease in the cost of audit services for the client. The creation of a single cloud information system allows to manage and adjust the audit activities for use by various participants of business processes, and the available tools for obtaining and analyzing data using MS Excel can process large volumes of information and sort them according to the objectives of the audit task allows.[6]

Communication is particularly important for communication within the audit team. The introduction of computer technologies into the work process helps to speed up communication within the team and thereby increases the effectiveness of cooperation. Video conference communication and group chats eliminate the complexity of remote information exchange, allow the project auditor group to almost completely avoid physical interactions on the territory of the audit organization in the process of preparing for entering the project, in the implementation of planning processes. In such conditions, the speed of performing the audit task can be increased several times, and the transfer (transaction) costs of companies are reduced.[7]

Systematization of information on the sections of audit, regulatory documents and questionnaires allows to automatically create conclusions on the assignment. The qualitative content of such work can be references combined with references to paragraphs of international auditing standards, templates of working documents.

[5] Izvarina N.Yu.and others. Ispolzovanie informatsionnyx sistem v hode provedeniya audita. Economy and Business: Theory and Practice, vol. 7 (89), 2022

[6] Boginskaya, Z.V. Distance audit v sootvetstvii s mejdunarodnymi standardami audita / Z.V. Boginskaya, T. Yu. Gladkova // Ekonomika i predprinimatelstvo. – 2020. – No. 9 (122). - S. 1155-1159.

[7] Kuznetsova, E.V. Automatization audit kak instrument control distansionnoy raboty auditorskoy organizatsii / E.V. Kuznetsova, A.V. Spesivtseva // Innovative economic development: trends and perspectives. - 2020. - T. 1. – S. 264-271.

Audit operations that can be carried out with the help of information systems are shown in Figure 2.

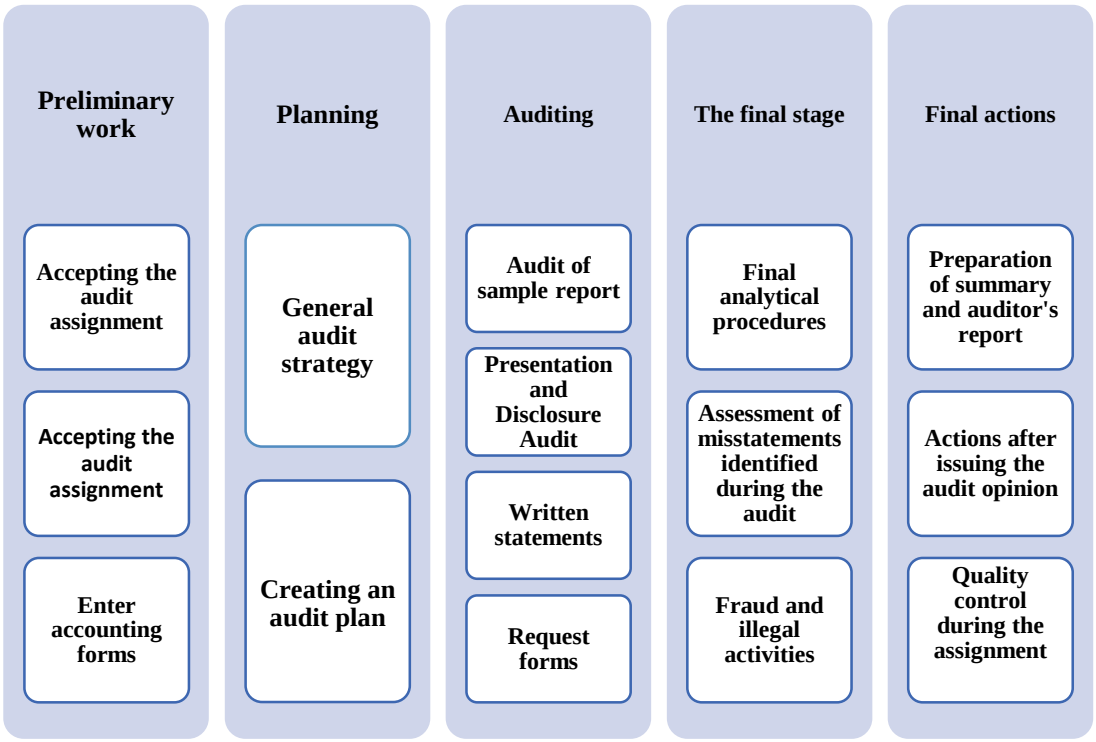

Figure 2. Audit operations that can be carried out with the help of information systems[8]

In automating the audit operations shown in Figure 2, the function of the auditor shifts to control the accuracy of initial data, risk assessment and analytical operations, and software tools allow conducting an audit within the defined parameters. The integration of each audit engagement is limited to a set of standardized audit procedures. The advantages of an automated approach to performing an audit task are summarized in Figure 3.

[8] Ispolzovanie informatsionnyx tekhnologiy v audite / N.Yu. Izvarina, A.A. Lermontova, K.E. Gutnik, S.A. Nikitin // Economics and business: theory and practice. – 2022. – No. 5-2 (87). - S. 23-27.

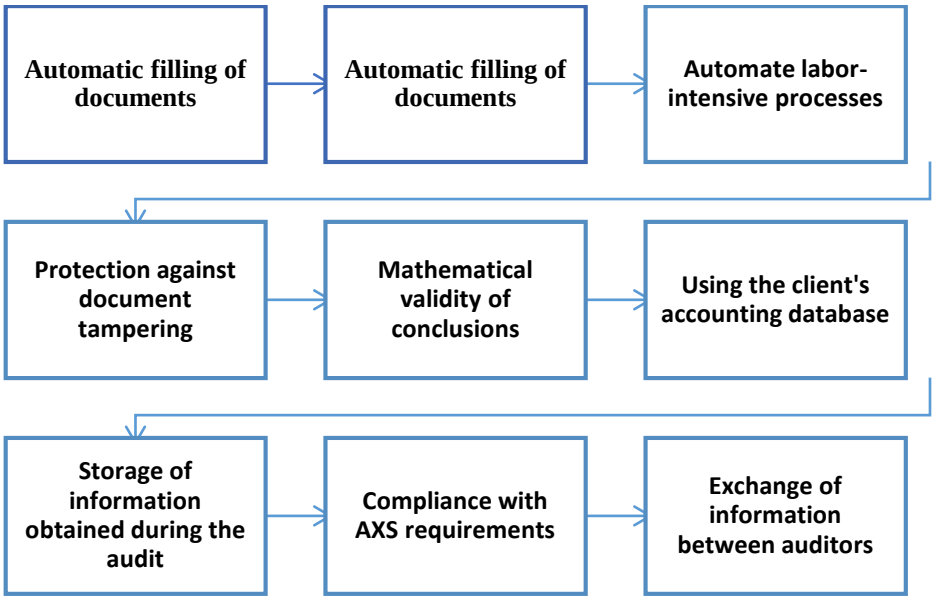

Figure 3. Advantages of an automated approach to auditing

The advantages of the automated approach to the execution of the audit task presented in Figure 3 are primarily related to the automation of the auditor's usual operations, thereby reducing labor costs, avoiding mechanical errors, reducing audit time, and improving the quality of the work performed.

Automation is a natural and necessary process in the audit services market. Due to the decrease in the volume of mandatory audits, increased competition and increased requirements for the number of auditors are forcing the business community to look for new ways of developing and interacting in the market. It is for this reason that modern information technologies and software solutions in the field of auditing based on updatable modules help to increase the efficiency of work in the field.

Table 1

Types of software used in international audit practice[9]

№	Program	Program Purpose	Manufacturer	Publication Year
1	AuditNET	Automation of audit activities	"New effective technologies"	2009
2	IT AUDIT: Auditor	Automation of auditing in a complex volume	"Master-soft" LLC www.audit-soft.ru	2005
3	AUDIT XP «Complex Audit»	Automation of audit activities	«Goldberg-Soft" company www.auditxp.ru	2005
4	"Ekspress audit:PROF	A complex system of auditing automation	"Termika" N.P. Baryshnikov consulting group.	2004
Types of software created in Uzbekistan				
5	AUDITSOFT	Designed for automation of internal audit services and audit companies of commercial banks and business entities	Chamber of Auditors of Uzbekistan (Karimov N.F.)	2007
6	Audit Sampling	It is intended for the audit of credit activities of commercial banks and activities of Central Bank	Saxobov O.U., Bubnov A.A.	2008

[9] Meliyev I.I. Improvement of planning and conduct of audit. Doctoral Dissertation Abstract for Doctor of Philosophy (PhD) degree. T.:-2019, 62 pages

7	First-Audit	It is intended to conduct internal audits of commercial banks and large production enterprises	Karimov J.F., Karimov X.X.	2010
8	"AUDIT" software package	Receiving and transmitting information in electronic form between the Ministry of Economy and Finance	Economy and Finance of the Republic of Uzbekistan	2018

Specialised audit software is used extensively in today's worldwide audit profession, together with accounting software, financial analytical software, regulatory and legal information systems, and office applications. Given the intricacy of the tasks involved in automating audit processes, we believe that the software application's efficacy is directly impacted by how well users are introduced to and trained on it. According to the research, high-quality audits are currently conducted in Russia and developed European countries based on short timeframes and procedures using the most advanced software tools, including AuditNET, ITAUDIT: Auditor, AUDIT XP "Complex Audit," and "Express audit: PROF."

The "AUDIT" software package of the Ministry of Economy and Finance of the Republic of Uzbekistan is a software package for information interaction with auditing organizations and public associations of auditors, as well as applicants for auditor qualification certificates, 2018 was developed on the basis of the Resolution of the President of the Republic of Uzbekistan dated September 19, 2018 No. PQ-3946 "On measures to further develop audit activity in the Republic of Uzbekistan".

Objectives of the "AUDIT" software package:

Receiving and transmitting information in electronic form between the Ministry of Economy and Finance and audit organizations;

Receiving and transmitting information in electronic form between the Ministry of Economy and Finance and republican public associations of accountants and auditors;

Receiving and transmitting information in electronic form between the Ministry of Economy and Finance and the Agency;

Receiving information in electronic form between the Ministry of Economy and Finance and the State Tax Committee;

Receiving information in electronic form between the Ministry of Economy and Finance and the Ministry of Employment and Labor Relations;

Receiving information in electronic form between the Ministry of Economy and Finance and the Ministry of Higher Education, Science and Innovation;

Display the information entered by the audit organizations in the software package;

Reflecting the information entered by the public associations of accountants and auditors in the software package;

Representation of the information entered by the agency in the software package;

Reflecting the information introduced by the State Tax Committee in the software package;

Display of the information entered into the "Electronic Labor Book" database by the Ministry of Employment and Labor Relations in the software package;

Reflecting the information included in the "On Higher Education" database by the Ministry of Higher Education, Science and Innovation in the software package;

Presentation of the journal of mutual cooperation with the above organizations on the official website of the "AUDIT" software complex.

The tasks of the "AUDIT" software package are: designed for information exchange between the Ministry of Economy and Finance and: auditing organizations; republican public associations of accountants and auditors; Information about commercial organizations for the legality of using the phrase "auditing organization" in the name of the company by business entities to the State Services Agency under the Ministry of Justice of the Republic of Uzbekistan; Information on business entities that are subject to mandatory audits by the State Tax Committee of the Republic of Uzbekistan, as well as on business entities and their officials

who have evaded mandatory audits on applicable financial sanctions. Regarding the provision of "Electronic Labor Book" information (as soon as it is ready) from the database of the Ministry of Employment and Labor Relations; Ministry of Higher Education, Science and Innovation to provide information from the database "On Higher Education" (as soon as it is ready).

The list of services provided electronically in the "AUDIT" software package includes:

1. Applying;
2. Applying for a certificate;
3. Information about auditors and audit organizations;
4. Providing information to the agency;
5. Interaction and provision of information.

The main subsystems of the "AUDIT" software package information system:

1. Management;
2. Private cabinet;
3. Journal writing;
4. Database;
5. Access control;
6. Search subsystem.

Every user of the "AUDIT" software package has an office that communicates data and reports to the General Prosecutor's Office and the Ministry of Economy and Finance's Department of Combating Economic Crimes. The data's secrecy is maintained at the same time. Together with improving the calibre of goods and services, cutting expenses, and guaranteeing information openness, digital technologies are a powerful weapon in the battle against corruption, the most pressing issue that the nation's authorities are giving careful consideration to.[10]

4. CONCLUSION AND RECOMMENDATIONS

As a result of our research, the following scientific proposals and practical recommendations have been formulated:

-The use of audit programs in the course of audits allows the auditor to perform the following tasks with quality and in a short period of time:

a) checking the balances of transactions and bank account numbers carried out at the client-enterprise through a computer database;

b) the ability to perform analytical operations in the computer database to determine the differences between property and funds in the document and in practice;

c) checking the database of the audited economic entity;

d) the possibility of testing the technical, mathematical and informational software used in the activities of the audited economic entity.

Practical research shows that in most cases, poor quality data is caused by the failure of computer equipment and carelessness and inexperience of operators. In our opinion, the following risks may arise as a result of the use of software in audits:

- technical risks - risks related to technical conditions, accounting data development methods, these risks are directly used in the implementation and use of automated information systems in the organization of accounting and internal control.
- risks associated with internal control when using software at the client-enterprise - insufficient use of the accounting data processing system, lack of clear definition

[10] Minavar Tulakhodjaeva and Mutabar Khodjaeva. 2021. FEATURES OF DIGITALIZATION AND ENSURING TRANSPARENCY OF ACCOUNTING AND AUDIT IN UZBEKISTAN. In The 5th International Conference on Future Networks & Distributed Systems (ICFNDS 2021), December 15, 16, 2021, Dubai, United Arab Emirates. ACM, New York, NY, USA, 4 pages. https://doi.org/10.1145/3508072.3508201

of the level of obligations and responsibilities of the client-enterprise's employees, dissatisfaction with the operation of the internal control system, client-enterprise information occurs as a result of non-availability of the protection system and loss of data due to unauthorized access to the database;

- risks related to the auditor's professional skills - incorrect assessment of accounting and analytical data processing systems, incorrect use of methods such as software testing and questionnaires, and problems related to misinterpretation of audit evidence.

Though no software can completely replace an auditor, it is advisable to utilise the capabilities of specialised audit software as much as possible during the audit process. All of the aforementioned factors are essential for the development of automation as a way to improve the quality of services provided in the field of auditing, but they also serve as a topic of debate between auditors and software developers.

In our opinion, the following factors influenced the emergence of the need for digitization in the world auditing practice:

high level of software market development;

wide use of software in accounting;

the complexity and time-consuming nature of large volumes of information and audit operations;

standardization of the audit and the development of its methodology;

that it is based on software and mathematical models and that they are used in inspection objects;

the creation of information search systems and the need for their wide use in audit activities;

creation of the legal framework for the creation of a digitized audit activity system.

However, despite many advantages, the following factors prevent the widespread distribution of digital audit programs in the local market:

high purchase price;

cost of training and observation. In this case, taking into account the changes in the legal documents requires additional processing of the programs for a long time (from 2 to 3 months) by the specialists of our representative offices of the developing companies;

long-term - implementation for half a year or more;

requiring adaptation and correction by a professional programmer to the specific needs of the user.

In our opinion, due to the complexity of the task of digitization of auditing activities, the effectiveness of using the software mainly depends on its implementation, training of users, adaptation of the developments and methods of the auditing organization to the new software product.

The ability to arrange the work of all auditing company employees in compliance with current laws, international audit standards, and internal standards is the primary benefit of today's specialised auditing software. To put it succinctly, the digitisation of the audit process will result in a shorter audit service duration, lower audit service costs, increased productivity for the auditor and his assistants, the ability to store and analyse client-enterprise data in a complete and accurate volume, and audit work documents that are easy for everyone to understand and free of orthographic and technical errors.

The use of digital technologies in audits has greatly facilitated the work, allowed to focus on more important factors in the examination of financial statements of enterprises. Thus, auditors spend less time analyzing each company's risk areas, focusing on detailed analysis of high-risk items in financial statements and business as a whole. Thanks to modern methods of information processing, less time is spent on analyzing the company's financial data. The result of the introduction of information technologies in the audit is to reduce the

time of the audit, increase the quality of the services provided, and improve the working conditions of the members of the audit organization.

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