



THE ROLE OF DIGITAL TECHNOLOGIES IN IMPROVING FINANCIAL CONTROL

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ABSTRACT

The article examines the important role of digital technologies in increasing the efficiency and reliability of financial control. The author explores various aspects of digitalization in finance, including the use of automated accounting systems, cloud technologies, data analytics and artificial intelligence. The article also discusses the benefits of digital technologies, such as increased accuracy, speed of information processing and the ability to detect deviations. The importance of actively implementing these technologies to ensure sound financial management in a rapidly changing business environment is emphasized.

KEY WORDS: Digital technologies, financial control, accounting automation, cloud technologies, data analytics, artificial intelligence, cybersecurity.

INTRODUCTION

Modern existence in the world is closely connected with the use of computers, information and communication networks, artificial intelligence, robotization and automation of numerous processes, using cloud technologies. The structures of society are rapidly changing, integrating diverse and complex modes of digital technologies and digital infrastructures. Skills in working with digital information are becoming an integral part of the arsenal of every member of society, identifying vulnerabilities in modern digital reality. The large-scale adoption of digital technologies throughout the world requires careful study, understanding and careful analysis of their advantages, disadvantages, and socio-economic implications.

Automation and digitalization of the economy contribute to the development of new products and represent a significant trend that is gaining popularity. The main goal is to reduce the time and stages of processing incoming information not only in the field of entrepreneurship, but also at the level of government agencies. In this regard, in many countries digitalization is currently recognized as a strategic development priority. The term digitalization has entered our daily lives, which can subsequently change a lot. Rapidly developing digital technologies affect all areas of the country's economy [1].

Digitalization has had a profound impact on the field of financial control, bringing with it not only noticeable changes, but also introducing innovative practices that transform the way financial processes are managed and monitored.

LITERATURE REVIEW

Digital technologies imply algorithms for collecting, storing, processing, indexing, retrieving and displaying information (data) in electronic format. Software and hardware, which is the practical side of implementing digital technologies in everyday life, contributes to changing the nature of socio-economic relations [2].

Modern changes in the digital space are breakthrough in nature and have an impact on most aspects of public life [3], so it is currently difficult to imagine life without the help of electronic, computer, and network technologies [4]. In this regard, digitalization has become one of the priority vectors for improving public administration [5].

Some authors at the present stage consider financial control through the prism of the development of the digital economy, which makes it possible to solve pressing problems in it [6], which include untimely response to violations committed during financial transactions, lack of transparency of the financial control process [7]. During the digitalization of financial control, emerging difficulties are resolved through the use of modern information technologies. When using these technologies, they adhere to the preventive principle, which is aimed



at eliminating weaknesses in the management system responsible for the compliance of products or services with the requirements imposed on them.

Other authors consider the use of the latest information technologies in auditing as key areas for digitalization of control in the financial and budgetary sphere. In this case, the main task is to ensure a high degree of accuracy and reliability of inspections and examinations, as well as increasing the speed and productivity of auditors. For this purpose, software systems and algorithms are widely used, aimed at identifying irregularities in accounting and tracking changes in financial statements [8].

At the same time, experts emphasize that currently there is no unified financial control system that integrates all functional areas, despite the many existing structures and organizations. It is necessary not only to eliminate duplicate inspections and increase the responsibility of performers on an object-based basis, but also to take measures to limit the growth in the number of inspections and inspection bodies [9]. Considering the direct impact of all this on the processes of real reproduction, it is necessary to expand the formulation of the question, paying attention to the essence and functional changes in financial control in the context of modern digitalization requirements.

Another economist, studying problems in this area, noted that the transformation of financial control is unfolding in conditions of inconsistency of its organization with the content of the control function of finance, which is focused mainly on optimizing the cost proportions of reproduction. In addition, a unified system of financial control has not yet been developed, which further increases the relevance of searching for the main directions of its transformation [10].

Thus, focusing on the essence and functional changes in financial control in the context of digitalization is a key direction for further research and improvement in this area. Openness to new directions of transformation and the introduction of innovations in the financial control system are becoming a necessity to successfully cope with the challenges of the digital era.

ANALYSIS AND DISCUSSION OF RESULTS

The implementation of financial control during the period of digital transformation is based on the use of digital technologies that can reduce dependence on human participation in this process, which frees up human resources, reducing the time spent on monitoring and analyzing financial data. These technologies not only modernize, but also restructure financial control processes, making them more efficient and automated.

The use of digital technologies to improve financial control is an integral element of the rapidly evolving digital sphere. These technologies are actively being introduced into the field of financial management, and their implementation brings significant benefits to organizations.

Digitalization in finance is a global transformation process covering various aspects, aimed at optimizing business processes and improving the efficiency of financial management. Including the following in this process plays a key role in achieving the goals of digital transformation in the financial sector.

- 1) automated accounting systems;
- 2) cloud technologies;
- 3) data analytics and artificial intelligence.

One of the important elements of a modern management system is on-farm control, the organization of which at this stage is impossible without the use of automation tools [11]. Automation tools include automated accounting systems - which is functional software designed to perform computer processing of complex accounting tasks [14]. It should be especially noted that accounting automation is of great importance in accounting for any organization [15].

Digitalization of financial processes through the use of automated accounting systems helps eliminate routine operations such as manual data entry and calculations, which, in turn, reduces the likelihood of human errors and increases the accuracy of financial accounting. These systems provide faster and more efficient transaction processing, as well as automated analysis of financial data, allowing organizations to quickly respond to changes.

Automation of accounting is one of the most important components of the process of maintaining and organizing accounting in any field of economic activity. Automation increases the efficiency of management and the quality



of control over the organization. It also reduces the possibility of errors in calculations and documentation, and helps increase the number of processed transactions in accounting [12].

In the field of automation of accounting processes, a number of software products have been created that use various approaches to solving and programming problems. There are comprehensive approaches to automating activities in general, and also solve individual local problems in accounting areas. Many accounting experts highly appreciate the level of automation of accounting processes [13].

Key features enabled by data automation include:

- Representation of the economic activities of organizations using accounting entries and analytical accounting.
- Carrying out synthetic and analytical accounting of cash flows and inventories across accounts.
- Maintaining consolidated and separate balance sheets for several departments.
- Accounting for mutual settlements with accountable persons.
- Accounting for fixed assets, intangible assets, materials, goods, calculation of depreciation of fixed assets and intangible assets.
- Summary and quantitative-total accounting, balance sheet and off-balance sheet accounts.
- Accounting for cash transactions, cash book, as well as parallel maintenance of several cash registers.
- Automatic generation of the Purchase Book and Sales Book.
- Recalculation of the General Ledger and account balances with turnover.
- Ability to correct documents and postings for any reporting period.
- Generation of reports for tax authorities and extra-budgetary funds.
- Financial analysis and balance sheet modeling.
- Additional options for accounting automation.

In other words, the introduction of automation in accounting leads to increased efficiency of control over the organization, improved accounting standards and a reduction in the number of errors and other inconsistencies.

Cloud technologies provide organizations with flexibility and scalability by allowing financial data to be stored and processed in remote data centers. This promotes data centralization, ensures its availability from anywhere in the world and increases information security. Cloud accounting applications provide easy collaboration and data sharing among employees, which facilitates timely financial management.

According to scientists, one of the areas for optimizing financial control in modern conditions of economic development is information support [16]. It is noted first, since it is on the basis of the information received that all decisions are made in the future. In order to timely prepare and make an effective decision in the financial control management system, it is necessary to study in detail all incoming information. Developing an effective management decision requires processing large amounts of data, which cannot be completed in the shortest possible time without the use of electronic computing tools [17].

Financial control, as an important component of the management subsystem, which is responsible for collecting, storing and analyzing information about the financial and economic activities of the organization, requires the introduction of advanced technologies in order to automate operations. In this case, cloud technologies are an important foundation for effective financial control management. Foreign studies show that transferring processes to cloud environments is the main direction of digital transformation, as this technology allows scaling activities, providing simple data management and reducing costs.

To understand this new technical concept, it is necessary to first clarify the essence of cloud technologies, or in other words, cloud computing.

Cloud computing technology allows users to access data and resources on demand. With cloud computing, users can access programs and IT services through a browser, without installing them on their computer. When using cloud technologies, an organization's data are stored in cloud storage. The term cloud storage covers several storage options available to cloud clients running on the cloud service provider's hardware, including:

1) Private cloud storage: As the name suggests, private cloud storage services are designed for a company or an individual based on their needs. This cloud storage system can be formatted into local cloud storage and external cloud storage. The system allows the user to have administrative control and perform any necessary actions regarding the data;



2) Public cloud storage: This system is designed to be less specific to administer and can be accessed by an anonymous user who is given appropriate permission by the organization;

3) Hybrid cloud storage: provides a combination of public and private storage and allows you to meet the needs of users by customizing features and making available the resources that the user has access to. In this case, a private cloud can be used to store confidential information and more important data, while less important data can be stored in a public cloud storage. This system saves time and financial resources [18].

As it was noted above, cloud technologies can have a significant impact on the effective management of financial controls for several reasons.

- Centralized storage and availability of data: Cloud storage allows to centrally store financial information, providing easy and fast access to data from anywhere in the world. This is especially critical for companies with global operations that require rapid decision making based on up-to-date data.

- Collaboration and data exchange: Cloud technologies allow multiple users to simultaneously work with data, enabling collaboration and information exchange between departments. This facilitates deeper data analysis and consistent decision making.

- Fast and flexible access: Virtual computing resources in the cloud provide high performance and scalability. This allows to process data and perform complex calculations in the shortest possible time, which is critical for operational financial management.

- Security and Backup: Cloud providers provide high standards of data security, including encryption and multi-level authentication. Regular backups of data guarantee its safety and the ability to quickly recover in case of failures.

- Integration with other technologies: Cloud technologies easily integrate with other digital solutions such as data analytics, artificial intelligence and mobile applications. This creates a balanced and interconnected system for complete financial control management.

- Saving resources: Using cloud computing reduces hardware and maintenance costs, since resources are provided as a service. This frees companies from the need to constantly update and modernize their computing infrastructure.

- Fast response to changes: Cloud technologies provide flexibility and scalability, which allows companies to quickly adapt to changes in the economic environment and quickly respond to new financial control requirements.

Thus, cloud technologies play a key role in creating a sustainable and effective financial control management system, providing the necessary speed, availability and security for making justified management decisions.

Artificial intelligence is one of the most dynamically developing technologies at present, and is already being used in various areas of activity, including public administration.

Artificial intelligence (AI) should be understood as “a set of technological solutions that allows one to imitate human cognitive functions (including self-learning and searching for solutions without a predetermined algorithm) and obtain results when performing specific tasks that are at least comparable to the results of human intellectual activity” [19].

Broad prospects for the use of artificial intelligence technologies are also opening up within the framework of budget control. Since, the use of digital technologies (which undoubtedly include artificial intelligence) in the budget process will allow for budget control over the formation and expenditure of budgets in real time [20]. This aspect is of particular relevance in connection with the change in the paradigm of budget control from retrospective to preventive [21].

The basis for creating a new model of state financial control should be the principle of reorienting control activities from identifying and punishing violations to preventing them. The digitalization of budget processes and the ability of state financial control bodies to interact with the business processes of organizations by embedding control tools into information systems play a key role in this transition.

In this context, AI systems become especially important. Firstly, the use of artificial intelligence to analyze data collected by control bodies can significantly improve the analytical capabilities of internal and external government financial control. It becomes more important to combine the information systems of various control authorities on a single platform to integrate databases, such as the tax service, treasury and internal financial control authorities. Secondly, the use of artificial intelligence for automated control of information processed in



state information systems makes it possible to develop monitoring, minimizing the implementation of other control activities.

It is important to note that in the field of public financial control, artificial intelligence can be used not only during control activities, but also when processing the results obtained. AI, playing a key role in financial control, can provide many opportunities to improve efficiency, accuracy and automation of processes. Below are several aspects of the relationship between AI and financial control:

- Process automation: AI is capable of automating many routine tasks in financial control, such as internal auditing, data collection and analysis, and monitoring financial transactions. This allows finance staff to focus on more strategic and analytical aspects.

- Forecasting and data analysis: Machine learning algorithms in AI can analyze financial data and provide forecasts on trends, recognize patterns and identify potential risks. This makes it easier to make justified decisions in financial control.

- Fraud detection: AI can be used to detect anomalies in financial transactions, which helps prevent fraud activities. Machine learning algorithms can identify unusual patterns and automatically alert about possible violations.

- Budgeting optimization: AI helps in optimizing the budgeting process by providing analytical data on expenses and income. This allows companies to allocate resources more efficiently and make more accurate financial forecasts.

- Personalized analysis: AI can provide personalized analysis of financial data according to the individual needs of the organization. This facilitates more accurate and relevant financial controls.

- Reduced errors and improved accuracy: Using AI in financial control processes reduces the likelihood of human errors and increases the accuracy of data analysis.

- Blockchain and smart contracts: AI combined with blockchain technology and smart contracts can provide an additional level of transparency and security in financial controls.

Overall, artificial intelligence significantly enhances the capabilities of financial control, making it more efficient, adaptive and facilitating better-justified strategic decisions.

CONCLUSION

In conclusion, it can be emphasized that the financial control system must take into account constantly developing technologies and improve in this direction in order to use only reliable and relevant information to make effective management decisions. In this regard, the importance of introducing modern digital technologies, including accounting automation, cloud technologies and artificial intelligence, in the context of improving financial control is increasing. Considering these modern technologies as key elements for optimizing and increasing the efficiency of financial management, it is necessary to emphasize their ability to speed up processes, increase the accuracy of data analysis and provide a high level of reliability in the financial sector. It is especially important to remember that these technologies not only improve current accounting processes, but also provide the ability to proactively and innovatively manage financial resources, which is a key element of successful and modern financial control in today's dynamic environment.

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