

ISSUES OF ENSURING INFORMATION SECURITY IN THE PROCESS OF DIGITALIZATION OF FINANCIAL REPORTS

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Abstract. This article scientifically analyzes the issues of ensuring information security in the process of digitizing financial statements. In the digital economy, along with the widespread introduction of electronic systems for maintaining, storing and transmitting financial information in enterprises, the problems of ensuring information security are also gaining relevance. The study covers the basic principles of information security - the concepts of confidentiality, integrity and availability, and analyzes the main risks that arise in financial reporting systems. It also substantiates the role of cryptographic protection methods, authentication and authorization systems, cloud technologies and backup mechanisms. The article develops scientific and practical proposals on the state of the process of digitizing financial statements in Uzbekistan, existing problems and ways to eliminate them. The results of the study serve to strengthen information security in the financial system and effectively organize digital transformation processes.

Keywords: Financial reporting, digitization, information security, cryptography, electronic digital signature, cloud technologies, data protection, cybersecurity, authentication, digital economy.

Аннотация. В данной статье научно анализируются вопросы обеспечения информационной безопасности в процессе оцифровки финансовой отчетности. В условиях цифровой экономики, наряду с широким внедрением электронных систем ведения, хранения и передачи финансовой информации на предприятиях, проблемы обеспечения информационной безопасности приобретают все большее значение. Исследование охватывает основные принципы информационной безопасности – понятия конфиденциальности, целостности и доступности, а также анализирует основные риски, возникающие в системах финансовой отчетности. Обосновывается роль методов криптографической защиты, систем аутентификации и авторизации, облачных технологий и механизмов резервного копирования. В статье разработаны научно-практические предложения по состоянию процесса оцифровки финансовой отчетности в Узбекистане, существующим проблемам и путям их устранения. Результаты исследования служат укреплению информационной безопасности в финансовой системе и эффективной организации процессов цифровой трансформации.

Ключевые слова: Финансовая отчетность, оцифровка, информационная безопасность, криптография, электронная цифровая подпись, облачные технологии, защита данных, кибербезопасность, аутентификация, цифровая экономика.

Annotatsiya. Ushbu maqolada moliyaviy hisobotlarni raqamlashtirish jarayonida axborot xavfsizligini ta'minlash masalalari ilmiy jihatdan tahlil qilingan. Raqamli iqtisodiyot sharoitida korxonalarda moliyaviy ma'lumotlarni elektron shaklda yuritish, saqlash va uzatish tizimlarining keng joriy etilishi bilan bir qatorda, axborot xavfsizligini ta'minlash muammolari ham dolzarb ahamiyat kasb etmoqda. Tadqiqot davomida axborot xavfsizligining asosiy tamoyillari — maxfiylik, yaxlitlik va mavjudlik tushunchalari yoritilgan hamda moliyaviy hisobot tizimlarida yuzaga keladigan asosiy xavf-xatarlar tahlil qilingan. Shuningdek, kriptografik himoya usullari, autentifikatsiya va avtorizatsiya tizimlari, bulutli texnologiyalar hamda zaxira nusxalash



mexanizmlarining o'zni asoslab berilgan. Maqolada O'zbekiston sharoitida moliyaviy hisobotlarni raqamlashtirish jarayonining holati, mavjud muammolar va ularni bartaraf etish yo'llari bo'yicha ilmiy-amaliy takliflar ishlab chiqilgan. Tadqiqot natijalari moliyaviy tizimda axborot xavfsizligini mustahkamlash hamda raqamli transformatsiya jarayonlarini samarali tashkil etishga xizmat qiladi.

Kalit so'zlar: Moliyaviy hisobot, raqamlashtirish, axborot xavfsizligi, kriptografiya, elektron raqamli imzo, bulutli texnologiyalar, ma'lumotlar himoyasi, kiberxavfsizlik, autentifikatsiya, raqamli iqtisodiyot.

In the modern economy, digitization processes are fundamentally changing all sectors, including the financial system. In particular, the introduction of systems for maintaining, storing and submitting financial reports in electronic form to the relevant authorities is of great importance in increasing the transparency of the activities of enterprises, quickly preparing reports, and reducing errors caused by the human factor. However, along with this process, issues of ensuring information security are also becoming an urgent problem.

Since financial reports contain the most important and confidential information about the activities of the enterprise, their illegal appropriation, modification or destruction can cause significant economic damage. Therefore, it is necessary to develop and improve mechanisms for ensuring information security in the process of digitization [1].

Digitalization of financial statements is one of the important directions of the modern economy, which involves the conversion of traditional paper-based reports into electronic form, their formation through automated information systems and transmission to the relevant organizations. This process is closely related to the rapid development of information and communication technologies, the improvement of software tools, and the expansion of the capabilities of processing large volumes of data. As a result of the introduction of the digitalization process, enterprises are moving to a new level in conducting their financial activities, which serves to increase management efficiency.

The importance of digitalization of financial statements is clearly manifested, first of all, in its practical results. In particular, the process of preparing reports is significantly accelerated, since many calculations are carried out through automated systems. At the same time, as a result of reducing the influence of the human factor, the level of errors is significantly reduced and the accuracy and reliability of data is ensured. Reducing the volume of paper documents not only provides economic savings, but is also important from an environmental point of view. In addition, electronic systems create the opportunity to monitor reports in real time, which helps management make quick and informed decisions. The digitization process also expands the possibilities of analysis and forecasting, as it becomes easier to conduct complex analysis on large volumes of data. As a result, the transparency and openness of financial information increases, creating a reliable environment for investors. However, along with the digitization of financial reports, the issue of ensuring information security is also of particular importance. Information security is understood as a set of measures aimed at maintaining the confidentiality of information, protecting its integrity from damage, and ensuring its availability when necessary. Since financial reports embody the most important indicators of an enterprise's activities, their protection is a strategic task. The principle of confidentiality means ensuring that only authorized persons have access to financial information [4].

The integrity principle guarantees that data is not changed or corrupted. The availability principle ensures that this data is available when needed. Violation of any of these three basic principles can negatively affect the reliability of financial statements and undermine the economic stability of the enterprise. It is natural that various risks arise in the process of digitization. First of all, external threats pose a great danger. These include hacking attacks,



malware, viruses, and fraudulent methods such as phishing. Through such threats, financial data can be illegally obtained or changed. Internal threats are no less important. There is a possibility that important data will be damaged as a result of errors or intentional illegal actions of company employees. For example, incorrect data entry or data modification. Technical failures are also a significant source of risk. Data can be lost due to server failures, software errors, or power outages. In addition, legal and organizational problems, such as insufficiently developed or non-compliance with the regulatory framework, also negatively affect information security.

To eliminate these risks, it is necessary to widely use modern information security methods. In particular, cryptographic protection tools play an important role. Using encryption technologies, data is protected and its content is made incomprehensible to outsiders. An electronic digital signature serves as an important tool for confirming the authenticity of documents and guaranteeing that they have not been modified. In addition, authentication and authorization systems are of great importance in identifying users and allowing them to use only authorized resources. Backup systems allow for quick recovery in the event of data loss. Antivirus programs and network security tools play an important role in preventing malicious programs and illegal access. In recent years, the use of cloud technologies in financial reporting has been expanding. Cloud systems provide centralized storage of data and the ability to access them remotely. This increases convenience and flexibility for enterprises. At the same time, cloud technologies also pose certain risks. In particular, these include the storage of data on third-party servers, the presence of security threats during transmission over the network, and the need for a high level of trust in the service provider. Therefore, it is important to apply additional security measures when using cloud technologies, including the use of strong encryption algorithms, and the introduction of multi-stage authentication systems. Significant work is also being carried out in Uzbekistan to digitize financial reports. The introduction of electronic tax reports, statistical systems, and electronic document management platforms is one of the important achievements in this regard. At the same time, there are some problems, among which the lack of qualified specialists in the field of information security, insufficient development of technical infrastructure, and low digital literacy of employees are of particular importance. An integrated approach is needed to solve these problems. In particular, it is important to develop a personnel training system in information security, widely introduce modern technologies, organize regular training and advanced training programs for employees, and improve the legislative framework [6].

In conclusion, the digitization of financial statements is an integral part of the modern economy, providing efficiency, transparency and speed. However, this process also creates new problems related to information security.

Therefore, protecting financial data, ensuring their integrity and confidentiality is one of the priority tasks. These problems can be solved through the effective use of modern cryptographic tools, authentication systems, backups and network security technologies.

In the future, with the further development of digital technologies, the issues of ensuring information security will also become relevant. Therefore, conducting scientific research in this area and widely implementing practical measures are of great importance.

References

1. Abdugarimov B., Xolmatov Sh. Raqamli iqtisodiyot asoslari. – Toshkent: Iqtisodiyot nashriyoti, 2021.
2. Yusupov R., Karimov U. Axborot xavfsizligi asoslari. – Toshkent: Fan va texnologiya, 2022.
3. Ismoilov N. Korxonalarda moliyaviy hisobot tizimini avtomatlashtirish. – Toshkent, 2023.



4. Laudon K., Laudon J. Management Information Systems: Managing the Digital Firm. – 16th ed. – Pearson, 2020.
5. Tursunov A. Axborot-kommunikatsiya texnologiyalari va ularning iqtisodiyotdagi o‘rni. – Toshkent, 2020.
6. Qodirov D. Raqamli iqtisodiyot va boshqaruv tizimlari. – Toshkent, 2022.

