

DIGITAL TECHNOLOGIES IN ACCOUNTING

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The article examines the essence of the concept of "digital technologies" in the context of their application in accounting, the authors' approaches to the content of digital technologies used in accounting are studied. Based on the generalization of various points of view of scientists and economists, the authors have identified similar characteristics of the selected digital technologies and proposed their own definition of the concept of "digital technologies in accounting".

Keywords: *digital accounting, digital technologies, digitalization, accounting, blockchain, cloud technologies.*

The XXI century is characterized by constant changes, informatization and digitalization of all spheres of human life. This has all acquired the name "digital economy". In accordance with the State Program "Digital Development of Belarus" for 2021-2025 in the Republic of Belarus [1], it is planned to improve the conditions for the formation of the digital economy and the development of the information society based on the introduction of digital technologies in all spheres of life such as education, medicine, industry, agriculture.

In this context, the issues of rethinking the role and place of accounting in the information management system of economic processes are becoming relevant, since its functionality traditionally includes the collection, processing and provision of economic information about the activities of economic entities. In recent years, the most important issue has been the formation of a new accounting paradigm related to the digitalization of the economy and the development of the information society of the XXI century.

Studies of the results of digitalization of accounting have shown that digitalization of accounting has a significant impact on two aspects of it at the same time:

- technology for accumulating (obtaining) the necessary information, storing it, and subsequently transferring it to interested users,
- through the use of digital technologies, improving the accounting method;
- the emergence of new accounting objects - digital assets caused by the use and spread of digital technologies in business.

To determine the impact of digital technologies on the accounting method, it is necessary to clarify the concept of digital technology for accounting and determine the types of digital technologies in accounting.

Let us consider in table 1 several definitions of the concept of "digital technology" presented in dictionaries (table 1).

Thus, according to the definitions in dictionaries, digital technologies mean the transformation of information into a discrete data set. This form is closely related to the binary number system consisting of 0 (no signal) and 1 (there is a signal). However, in the modern world, digital technologies have become understood as those where information is "digitized". Digitization is a description of an object, image, or audio–video signal in the form of a set of discrete samples of this signal, i.e. its translation into a digital form suitable for recording on electronic media. [5]

Table 1. – Definitions of the concept of "digital technology"

The name of the literary source	Definitions
Dictionary of terms and concepts of digital didactics	Digital technology is based on the methods of encoding and transmitting information. A discrete system that allows solving a variety of diverse tasks in the shortest time intervals [2]
Explanatory dictionary of terms and concepts on digital transformation	Digital technology is a technology, unlike analog, that works with discrete rather than continuous signals [3]
Wikipedia	Digital technologies are technologies based on the representation of signals by discrete bands of analog levels, and not in the form of a continuous spectrum [4]

Source: based on the data [2–4].

Digital technologies and information technologies are often confused, but in fact the former is an integral part of the latter. Information technologies include all those technologies that are associated with the exchange of information. For example, a traffic light telling us when to go is an information analog device, and the service where we track traffic jams is also informational, but already digital.

Let's consider which technologies in accounting the authors refer to as digital in table 2.

Table 2. – Digital technologies in digital accounting

Authors	Definitions
Varlamova, D.V., Alekseeva, L.D.	"Blockchain technology", cloud technologies [6]
Karpova, T.P.	cloud technologies [7]
Cih, A.	"Blockchain technology", cloud technologies [8]
Pozharickaja, I.M.	"Blockchain technology" [9]
Filippova, A. V., Eremenko, V. A.	"Blockchain technology" [10]
Pak, M.V., Tkach, V.I.	Cloud data storage, Big-data system, blockchain technology, mega-balance system, engineering chart of accounts [11]
Erjomenko, V.A., Mamleeva, A.M.	blockchain technology [12]
Voz'janova, A.N.	Accounting system (or ERP); client-bank; reporting system via electronic communication channels; electronic document exchange services with counterparties; process and document management system [13]
Pikalov, P.A.	Blockchain technology [14]
Kochetkova, A.S., Selezneva, M.P.	Blockchain technology [15]
Dujsen, K.	Blockchain technology [16]
Shherbakova, A.V., Brjanceva, T.A.	Cloud computing [17]
Lagunovskaja, E.O.	Blockchain technology [18]
Abduraimova E.D.	Technologies of contactless identification of accounting information (technologies of bar coding, speech data entry, machine vision, etc.) and others [19]

Source: based on the data [6–19].

Analyzing articles from dictionaries, publications by well-known authors, scientific journalists, economists, it is necessary to allocate the following technologies in accounting, which the authors attributed to digital technology blockchain, cloud technologies (Google Drive, Drop-Box, Google drive), a cloud-based data storage, the system of "Big data", the system of mega-balances, engineering, accounts, unified information resource management system (ERP), accounting system (ERP), client-Bank system reporting (SSO) via electronic channels of communication services electronically exchange documents (ODS) with counterparties, process and document management system (ECM or electronic document management system), cloud computing, contactless identification of accounting information, etc.

Most authors agree and consider “blockchain” technology as digital technologies that can be implemented in accounting. However, some authors, such as Evsyukova, Yurieva, Pak, Tkach and others, also single out the "Big-data" system, the mega-balance system, the reporting system (MTR) via electronic communication channels, electronic document exchange services (SOD) with counterparties as digital technologies for accounting, process and document management system (ECM or electronic document management system). Illustration shows an analysis of digital technologies in accounting.

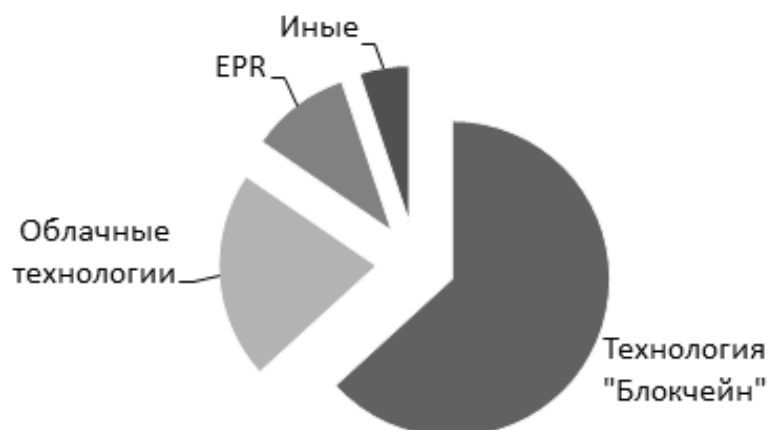


Figure. – Analysis of digital technologies in accounting

According to table 2 for digital technologies in accounting, highlighted by the authors, it is advisable to identify a number of similar characteristics:

- the use of electronic computing devices, the Internet, IT products.
- the possibility of remote access to account information without being tied to a workplace or digital device.
- a high degree of protection of credentials from loss or distortion at all stages of the accounting process.
- additional opportunities for collecting, analyzing large amounts of information and managing business entities.

That is, the development of digital technologies can significantly speed up the process of collecting information, increase the speed and volume of its processing and storage, as well as create conditions for the availability and efficiency of information for users, despite the fact that the quality of information increases significantly.

Thus, we have considered and analyzed various points of view of academic economists, combining which, we can offer the author's definition of the concept of "digital technologies in accounting": this is a set of methods for collecting, processing and storing accounting information using electronic computing devices, the Internet, IT programs that allow to increase the speed of data processing, their volumes and protection against losses and distortions, create conditions for constant access to information without reference to the workplace and operational management of credentials.

The proposed definition, in contrast to those presented in table 2, fully reveals the essence of the concept of "digital technologies in accounting", as it affects the specifics of the use of digital technologies for accounting purposes.

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ЦИФРОВЫЕ ТЕХНОЛОГИИ В БУХГАЛТЕРСКОМ УЧЕТЕ

В статье рассматривается сущность понятия «цифровые технологии» в контексте их применения в бухгалтерском учете, изучаются подходы авторов к содержанию цифровых технологий, используемых в бухгалтерском учете. Основываясь на обобщении различных точек зрения ученых и экономистов, авторы выявили сходные характеристики выбранных цифровых технологий и предложили собственное определение понятия «цифровые технологии в бухгалтерском учете».

Ключевые слова: цифровой учет, цифровые технологии, цифровизация, учет, блокчейн, облачные технологии.