

ACCOUNTING AND TAXATION

ОБЛІК І ОПОДАТКУВАННЯ

UDC 657.004

FEATURES OF ACCOUNTING DIGITALIZATION PROCESSES

**Tamara Franchuk¹; Dmytro Tyshchenko²;
Alona Desiatko²; Ihor Karpunin²**

¹National Academy of Statistics, Accounting and Audit, Kiev, Ukraine

²State University of Trade and Economics, Kiev, Ukraine

Summary. The article examines the issues of digitization of accounting. Solving many problems requires an integrated approach that encompasses technological innovation, process optimization, and strategic management. It was determined that accounting and analytical support is key to ensuring stable production, effective use of resources and achieving financial stability of the enterprise. Strengthening these aspects will contribute not only to the successful functioning of the enterprise, but also to ensuring the safety and sustainable development of the economic sector. The implementation of automated management systems and digitization of accounting is a key stage in the strategic development and optimization of the production processes of enterprises. Special attention will be paid to the further development of digitalization by researching the company's economic characteristics; studying of the organization and management structure of the company and its main activity; familiarization with methods of management and organization of accounting; calculation of the main technical and economic performance indicators; analysis of financial results of activity and profitability of the business entity under study; study of profitability and liquidity of the enterprise, etc. It has been proven that the automation of processes is aimed at meeting the growing informational needs of management and has an important impact on the efficiency of operations. The use of computerized accounting management systems allows not only to adapt to changes in the market, but also to actively respond to them, contributing to a balanced and optimal management of resources. It has been established that to provide innovative technologies, artificial intelligence and machine learning are used to automate processes. It has been proven that the automation of cash accounting at the enterprise is a rather complex and at the same time a process that requires the study of the legislative and accounting framework, which requires changes to be made with the help of a specially developed software complex. It is proven that the introduction of new accounting methods is a constant process subject to the constant development of informatization processes. It was determined that there is a great interest in the methods of preparing accounting reports and the methods used by European and global companies. At the same time, large companies in Ukraine are gradually moving to international accounting and financial reporting rules.

Key words: digitization, accounting activity, information technologies, informatization, software product.

https://doi.org/10.33108/galicianvisnyk_tntu2025.01.061

Received 10.12.2024

УДК 657.004

ОСОБЛИВОСТІ ПРОЦЕСІВ ДІДЖИТАЛІЗАЦІЇ БУХГАЛТЕРСЬКОГО ОБЛІКУ

Тамара Франчук¹; Дмитро Тищенко²; Альона Десятко²; Ігор Карпунін²

¹Національна академія статистики, обліку та аудиту, Київ, Україна

²Державний торговельно-економічний університет, Київ, Україна

Резюме. Досліджено проблематику діджиталізації бухгалтерського обліку. Вирішення багатьох проблем вимагає інтегрованого підходу, що охоплює технологічні інновації, оптимізацію процесів та

стратегічне управління. Визначено, що обліково-аналітичне забезпечення є ключовим для забезпечення стабільного виробництва, ефективного використання ресурсів та досягнення фінансової стійкості підприємства. Посилення цих аспектів сприятиме не лише успішному функціонуванню підприємства, а й забезпеченню безпеки й сталого розвитку в економічному секторі. Впровадження автоматизованих систем управління та діджиталізація бухгалтерського обліку є ключовим етапом у стратегічному розвитку та оптимізації виробничих процесів підприємств. Визначено, що особливої уваги задля подальшого розвитку діджиталізації вимагатимуть дослідження економічних характеристик компанії; вивчення організації та структури управління компанії та її основної діяльності; ознайомлення з методами управління та організації бухгалтерського обліку; розрахунок основних техніко-економічних показників діяльності; аналіз фінансових результатів діяльності та прибутковості досліджуваного суб'єкта господарювання; дослідження рентабельності та ліквідності підприємства тощо. Доведено, що автоматизація процесів спрямована на задоволення зростаючих інформаційних потреб управління та має важливий вплив на ефективність діяльності. Діджиталізація бухгалтерського обліку сприяє підвищенню якості корпоративного управління, що включає процеси впровадження інновацій та створює можливості оперативних відповідей викликам для бізнесу з точки зору вибору сучасних релевантних технологій. Встановлено, що для забезпечення інноваційних технологій використовується штучний інтелект та машинне навчання для автоматизації процесів. Доведено, що автоматизація обліку грошових коштів на підприємстві є доволі складним і потребує вивчення законодавчої та облікової бази, що вимагає внесення змін за допомогою спеціально розробленого програмного комплексу. Доведено, що впровадження нових методів бухгалтерського обліку є постійним процесом, що підпорядкований неспинному розвитку процесів інформатизації. Визначено, що існує великий інтерес до методів складання бухгалтерської звітності та методів, які використовують європейські та світові компанії. Водночас, в Україні великі компанії поступово переходять на міжнародні правила бухгалтерського обліку та фінансової звітності.

Ключові слова: діджиталізація, облікова діяльність, інформаційні технології, інформатизація, програмний продукт.

https://doi.org/10.33108/galicianvisnyk_tntu2025.01.061

Отримано 10.12.2024

Introduction. The field of services is a promising direction of business activity, but this field of activity has both advantages and certain features that make it different from, for example, trade in finished products. The peculiarity of this difference is that it is possible to predict the reaction and further demand of the consumer from the sale of one or another product. However, the service sector is an activity in which demand is quite difficult to predict. Because any services are evaluated only after they have already been provided, the reaction to them may vary. In addition, the services require an individual approach to the client, which in turn leads to greater costs, both financial and the availability of highly qualified human resources. Accounting in the service sector has its characteristics and differs significantly, in particular, in the methods used by accountants. However, the main task of accounting for any type of activity remains unchanged – the display of all economic transactions with further summarization of the received data for the formation of financial statements to make timely and correct management decisions by the management.

Review of the latest research and literature. Analysis of the theoretical and practical achievements of scientists of these aspects will allow specialists and developers to pay attention to the elimination of identified problems to improve the digitization of accounting. Actual problems of digitalization of accounting and analysis of the company's activities with the improvement and implementation of modern IT tools are studied by numerous domestic and foreign scientists. Having studied the theoretical and practical material, they indicate the main problems and prospects for development and ways of improving in increasing the efficiency of the processes of digitization of accounting. Teniukh Z., Pelekh U. substantiate the phasing of creating a digital accounting system [1]. Nazarova K. O., Moiseienko O. M. are sure that accounting under digitalization has a number of significant advantages, compared to traditional accounting, thanks to the speed of creation, signing, transfer of information, documents and reports, online monitoring of financial position of the enterprise, resources and indicators, remote access to information independently from physical location [2]. Zhivets A. analyzes the process of evolution of professional competencies of accountants of small enterprises in the

digital economy of Ukraine [4]. Belfo F., Trigo A. study the main problems of implementing information systems [5]. Dubynyak T., Manziy O., Senyk A., Minziuk N. and Senyk Yu. proposed a project of their information system for analysis, forecasting and effective management of banking risks [6]. Stepashkina K., Karpunin I. in co-authorship with other researchers consider digitization processes through the prism of designing and developing information systems of electronic document circulation for their effective functioning [7].

The main goal of the article is to determine the place of the development of digitization processes in accounting and enterprise management.

Task setting. To achieve the goal, the following scientific tasks were set: to study the peculiarities of the implementation of accounting digitization processes; to explore ways of digitalization in accounting; to conduct an analysis of current issues and to justify the need for digitalization in accounting activities. To achieve the goal, the following scientific tasks were set: to study the peculiarities of the implementation of accounting digitization processes; to explore ways of digitalization in accounting; to conduct an analysis of current issues and to justify the need for digitalization in accounting activities.

Presentation of the main material. An important goal of the introduction of digitization of income accounting is the creation of updated, «smart» accounting of business operations with effective tools for control and management of the enterprise, as well as automation of all spheres of activity. Today, digitization is considered as a complete restructuring of the activity model, transformation of all processes and transition to the use of new tools in one's work. An important goal of the introduction of digitization of income accounting is the creation of updated, «smart» accounting of business operations with effective tools for control and management of the enterprise, as well as automation of all spheres of activity. Today, digitization is considered as a complete restructuring of the activity model, transformation of all processes and transition to the use of new tools in one's work. It tends to develop rapidly, due to the ability to collect, accumulate and analyze a large amount of information [1–2].

In the course of the study, the implementation process, development prospects, positive and negative sides of digitization and consequences of its implementation at enterprises (institutions, organizations) were considered and analyzed. Digital transformation is an integral part of professional development. Based on elaborated scientific works, normative legal acts and specialized documents, the definition of digitalization of the income of a separate business entity has been improved, as a process of creation, application of specialized new platforms and mechanisms that will promote transformation and have a positive impact on the efficiency, speed, content, labor-intensiveness of accounting support of income and the formation of relevant reporting indicators. the definition of digitalization of the income of a separate business entity has been improved, as a process of creation, application of specialized new platforms and mechanisms that will promote transformation and have a positive impact on the efficiency, speed, content, labor-intensiveness of accounting support of income and the formation of relevant reporting indicators. The definition of digitalization of the income of a separate business entity has been improved, as a process of creation, application of specialized new platforms and mechanisms that will promote transformation and have a positive impact on the efficiency, speed, content, labor-intensiveness of accounting support of income and the formation of relevant reporting indicators. Business entities need to use all the positive means of digitalization, to carry out its gradual and meaningful implementation in production and accounting activities, which will make it possible to develop and be competitive not only on the national market, but also on the world market [3, 5–7].

Electronic payment systems such as PayPal and Stripe allow for electronic and online transactions, automatically registering them and simplifying the accounting process. The use of Internet banking allows businesses to carry out banking operations online, automatically synchronizing data with bank accounts. Mobile applications provide convenient access to

information about monetary transactions, allowing users to monitor and record transactions from their smartphones. Cloud solutions allow you to store and process financial data online, providing quick and convenient access to the necessary information. Electronic wallets allow you to conduct contactless transactions and automatically register them. Computer programs for cash accounting are implemented by enterprises to increase efficiency and accuracy. Accounting programs for cash accounting are an integral part of the modern financial management of an enterprise. These programs help automate accounting operations, ensuring accurate and efficient accounting of financial transactions.

If we analyze the most famous programs, then among them we should mention QuickBooks, which can track individual special financial transactions, Xero, which was created to try to work with accounts and automatically synchronize data with bank accounts, Wave and FreshBooks. FreshBooks are designed to record work and accounting operations of small businesses, freelancers, as well as self-employed persons, Zoho Books, unlike the mentioned software applications, are designed to work in the cloud virtual space. Sage 50 cloud, Zoho Books має спеціальні програмні можливості, задля роботи із рахунк Sage 50 cloud, Zoho Books has dedicated software capabilities for invoicing, expense tracking, invoice tracking, inventory management, bill payment, and more. Special attention should be paid to Microsoft Dynamics 365 Finance, which is a corporate platform, thanks to which the process of tracking cash flows is carried out, is a specially designed cloud platform for work in the field of accounting and financial management. As for MASTER software development, it is used for optimal management of enterprises, their utility services, etc. Since today all companies use accounting software, improving the appropriate software is an important step in acquiring practical and theoretical accounting skills. To achieve this goal, first of all, it is necessary to perform the following steps to identify gaps in the selection and application of application software: to investigate the organizational management structures of the enterprise; to study the peculiarities of accounting organization; analyze the main technical and economic indicators of the business entity; learn the economic essence and basic approaches to defining the concept of money; to study the method of documenting the accounting of cash in the cash register and operations of bank accounts; to investigate the peculiarities of synthetic and analytical accounting of monetary funds; to find out the specifics of the automation of the cash researched company; to study the tasks and sources of internal control of funds; to investigate the essence of the methods of conducting internal control of the state and movement of funds. A thorough study of all the above aspects will allow, in the future, developers to pay attention to the elimination of identified problems to improve the digitalization of accounting.

Accounting software is an essential element in today's supply chain management and production process optimization. These systems allow businesses to effectively record, monitor and analyze various aspects of their operations. For effective and rational accounting, there are key aspects of software theory that require constant improvement and development. The following methods are used for effective accounting of production stocks at the enterprise: identification and classification, which allow you to quickly and at any time identify and classify various types of stocks, such as raw materials, semi-finished products, finished products; keeping logs that allow you to record inventory movements, including receipts, expenditures, returns, and other events. For accounting planning and management, the following is used: demand forecasting: some systems use analytical tools to forecast future demand for goods and materials – inventory planning involves optimizing the order size and inventory level. Tracking and control are achieved through integration with barcode systems, which allow accurate tracking of stock movements and balances and the use of modern computerized technologies for rapid automated tracking. For accounting analysis and reporting, systems are used that provide the ability to generate various reports and analyze the processes of their effectiveness, as well as business intelligence to identify and analyze trends in accounting and find ways to improve them.

The modern environment for financial transactions and accounting has fundamentally changed as a result of the use of digital technologies, which occurred as a result of the creation of digital assets, and this was the basis for the reorganization and modernization of sustainable practices of enterprises, reorganized and changed business tasks, there were changes in the structure of labor resources and requirements for them. Solving many problems requires an integrated approach that encompasses technological innovation, process optimization, and strategic management. Various sources and tools are used for the accounting of funds with the help of computer technologies. The main sources of digitization of cash accounting are listed below: accounting programs (QuickBooks, M.E.Doc, Master Accounting, Debit Plus, Xero); electronic payment systems (PayPal, Stripe); Internet banking (POS terminals); mobile applications; electronic wallets (Google Pay, Apple Pay); electronic statements and applications; financial modules of ERP systems; use of financial modules as part of ERP systems (SAP, Oracle Financials).

They also use mobile applications for cash accounting, which are used to register and track cash transactions in real time to ensure convenient access to information from anywhere. Please note that electronic payment systems are designed to pay bills and perform transactions, which allows integration with the accounting system for automatic payment accounting. Liquidity management is carried out using software tools for forecasting and managing cash flow and optimizing the company's liquidity with the help of analytical tools. A separate integration with accounting systems is used to ensure integration of accounting systems for automatic data exchange and avoidance of double entry of information. It is security and auditing that are used as security measures to protect funds and financial data. conducting audits and controlling access to the accounting system. And analysis and reporting, as mandatory elements of using analytical tools to assess cash flows and plan financial strategies. generation of reports for management and financial analysis.

Today, there is automation of accounting processes a mandatory component of the activity of any company, regardless of the type and direction of activity. Even a small business computerizes all accounting processes to display all economic transactions, systematize them and to form financial statements. Automation of cash accounting at the enterprise is a rather complex and at the same time a process. It requires the study of the legal and accounting base related to monetary funds. Since it is possible to start entering information using the software complex only by knowing and understanding the essence and purpose of the documents you are filling out. The use in practice of the generalized directions of the organization and methods of control of cash audits will provide an opportunity to improve and improve the formation of information to increase the efficiency of its use by the business management system and directly by managers and owners of the enterprise when making management decisions based on the results of the audit. The implementation of computer technologies in the financial accounting of funds allows enterprises to increase the efficiency and accuracy of accounting, as well as to improve general management control. The presence of a large number of programs allows the enterprise to choose the appropriate program depending on its characteristics and direction of activity. The main proposals for the further development of the enterprise are the introduction of domestic programs for accounting, the gradual transition to electronic document management, and the introduction of a flexible mode of operation of the enterprise in the conditions of the current economic situation.

Conclusions. The introduction of new accounting methods is a constant process subject to the constant development of informatization processes. Today, there is great interest in accounting reporting methods and methods used by European and global companies. In Ukraine, large companies are gradually moving to international accounting and financial reporting rules. That is why the preparation of accounting reports by international standards allows domestic companies to easily enter the international market and compete in it. However, the current rules of financial reporting also aroused considerable interest among accountants, since the correct preparation of financial statements requires certain knowledge and experience, as well as a responsible attitude and accurate presentation of data. It is the further study of the methods and approaches of compiling

and presenting financial statements in the context of accounting and analysis, which are necessary for managing the company's activities, that need further study. Research of the company's economic characteristics will require special attention in the focus of further unceasing development of digitalization; study of the organization and management structure of the company and its main activity; familiarization with methods of management and organization of accounting; calculation of the main technical and economic performance indicators; analysis of financial results of activity and profitability of the business entity under study; study of profitability and liquidity of the enterprise, etc. In the conditions of digitization of accounting, new strategies must be developed to solve the main tasks of accounting, including changes to the content of financial reporting, data collection and analysis, support for the decision-making process, invoicing, payroll, etc.

References

1. Teniukh Z., Pelekh U. (2022) Didzhytalizatsiia bukhalterskoho obliku v Ukraini: stan ta perspektyvy rozvytku. [Digitization of accounting in Ukraine: status and development prospects]. *Economy and society*, no. 41. Available at: <https://doi.org/10.32782/2524-0072/2022-41-66> (accessed: 20 October 2024). DOI: <https://doi.org/10.32782/2524-0072/2022-41-66>
2. Nazarova K. O., Moiseienko O. M. (2020) Covid-kryza yak draiver dydzhytalizatsii bukhalterskykh protsedur [The COVID-crisis as a driver of digitalization of accounting procedures. Business-Inform] *Business-Inform*, no. 6. Available at: URL: http://www.business-inform.net/export_pdf/business-inform-2020-6_0-pages-227_234.pdf (accessed: 20 October 2024). DOI: <https://doi.org/10.32983/2222-4459-2020-6-227-234>
3. ACCA (2021). Professional accountants – the future: generation next. Available at: <https://www.accaglobal.com/in/en/technical-activities/technical-resources-search/2016/november/generation-next.html> (accessed: 20 October 2024).
4. Zhyvets A. (2018) Evolution of Professional Competencies of Accountants of Small Enterprises in the Digital Economy of Ukraine. *Baltic Journal of Economic Studies*, vol. 4, pp. 87–93. DOI: <https://doi.org/10.30525/2256-0742/2018-4-5-87-93>
5. Belfo F., Trigo A. (2013). Accounting Information Systems: Traditions and Future Directions. *Accounting Information Systems – Tradition and Future Directions*, pp. 536–546. DOI: <https://doi.org/10.1016/j.protcy.2013.12.060>
6. Dubyniak T., Manziy O., Senyk A., Minziuk N. and Senyk Y. (2023) Analiz bankivskykh ta valjutnykh ryzykiv iz vykorystannjam IT [Analysis of banking and currency risks using IT]. *Galician economic journal*, vol. 5, no. 84, pp. 60–70. DOI: https://doi.org/10.33108/galicianvisnyk_tntu2023.05.060
7. Tyshchenko D., Franchuk T., Stepashkina K., Karpunin I. (2024). Proektuvannia ta rozrobka systemy korporatyvnoho elektronnoho dokumentoobihu. [Design and development of a corporate electronic document flow system]. *European Scientific Journal of Economic and Financial Innovations*, 1 (13), pp. 200–207. DOI: <https://doi.org/10.32750/2024-0119>

Список використаних джерел

1. Тенюх З., Пелех У. Діджиталізація бухгалтерського обліку в Україні: стан та перспективи розвитку: *Економіка та суспільство*, 2022. № 41. URL: <https://doi.org/10.32782/2524-0072/2022-41-66> (дата звернення: 20 вересня 2024). DOI: <https://doi.org/10.32782/2524-0072/2022-41-66>
2. Назарова К. О., Мойсеєнко О. М. Covid-криза як драйвер діджиталізації бухгалтерських процедур: *Бізнес-Інформ*, 2020. № 6. URL: http://www.business-inform.net/export_pdf/business-inform-2020-6_0-pages-227_234.pdf (дата звернення: 20.10.2024). DOI: <https://doi.org/10.32983/2222-4459-2020-6-227-234>
3. ACCA Professional accountants – the future: generation next. URL: <https://www.accaglobal.com/in/en/technical-activities/technical-resources-search/2016/november/generation-next.html> (дата звернення: 20.10.2024).
4. Zhyvets A. Evolution of Professional Competencies of Accountants of Small Enterprises in the Digital Economy of Ukraine. *Baltic Journal of Economic Studies*. 2018. Vol. 4. С. 87–93. DOI: <https://doi.org/10.30525/2256-0742/2018-4-5-87-93>
5. Belfo F., Trigo A. Accounting Information Systems: Traditions and Future Directions. *Accounting Information Systems – Tradition and Future Directions*. 2013. С. 536–546. DOI: <https://doi.org/10.1016/j.protcy.2013.12.060>
6. Дубиняк Т. С., Манзій О. С., Сенік А. П., Мінзюк Н. В., Сенік Ю. А. Аналіз банківських та валютних ризиків із використанням ІТ. *Галицький економічний вісник*. 2023. № 5 (84). С. 60–70. DOI: https://doi.org/10.33108/galicianvisnyk_tntu2023.05.060
7. Tyshchenko D., Franchuk T., Stepashkina K., Karpunin I. Проектування та розробка системи корпоративного електронного документообігу. *Європейський науковий журнал Економічних та Фінансових інновацій*. 2024. № 1 (13). С. 200–207. DOI: <https://doi.org/10.32750/2024-0119>