Облік і оподаткування

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Parasii-Verhunenko Iryna
Doctor of Economic Sciences, Professor
Department of Financial Analysis and Audit
State University of Trade and Economics
Парасій-Вергуненко Ірина Михайлівна
доктор економічних наук, професор
кафедра фінансового аналізу та аудиту
Державний торговельно-економічний університет
ORCID: 0000-0001-6506-6965

Pavlyshyna Viktoriia
Student of "OS Master" of the
State University of Trade and Economics
Павлишина Вікторія Романівна
студентка «ОС Магістр»
Державного торговельно-економічного університету
ORCID: 0009-0005-7518-2253

DEVELOPMENT OF DIGITAL TECHNOLOGIES AND AUTOMATION OF FINANCIAL ANALYSIS IN MODERN ECONOMIC CONDITIONS
РОЗВИТОК ЦИФРОВИХ ТЕХНОЛОГІЙ ТА АВТОМАТИЗАЦІЯ ФІНАНСОВОГО АНАЛІЗУ В СУЧАСНИХ ЕКОНОМІЧНИХ УМОВАХ

Summary. *Introduction. The current stage of economic development is characterized by the rapid introduction of digital technologies into all areas of activity, in particular into the sphere of financial analysis of enterprises. Digitalization of analytical procedures is a key factor in increasing the efficiency*

of enterprise management, speed of decision-making and ensuring competitiveness in the market.

In particular, digital tools allow you to automate the processes of collecting, processing and interpreting large amounts of financial and production data, which significantly reduces the time for performing analytical work and minimizes the risk of human errors. Also, the use of modern software products makes it possible to generate interactive reports, conduct operational monitoring of the financial condition, carry out comprehensive analysis taking into account external factors and forecast the development of the enterprise. Finally, we note that digitalization contributes to increasing the transparency and objectivity of analytical information, which strengthens the trust of investors, partners and regulatory authorities. In the context of the rapid digitalization of the economy, the relevance of digitalization of financial analysis is growing every year. It is a driver of changes in approaches to assessing the effectiveness of the enterprise, provides the ability to adapt to changes in the market environment and integrate innovative business models. Thus, digitalization of the financial analysis process not only increases its quality and reliability, but also contributes to the development of enterprises in modern economic conditions.

Purpose. The purpose of the study is to reveal conceptual approaches to the use of digitalization in conducting financial analysis of an enterprise.

Materials and methods. The research materials are: established methodologies that regulate the processes of digitalization of financial analysis of enterprises, in particular regarding the implementation of software for automating analytical procedures; scientific works of domestic and foreign specialists devoted to the issues of transformation of economic analysis methods in the context of digitalization , as well as the implementation of modern digital platforms to support management decisions.

The following scientific methods were used in the research: the method of theoretical generalization and grouping - to systematize the main digital tools and

software solutions used in the process of financial analysis of an enterprise, as well as to classify their functional capabilities; methods of formalization, analysis and synthesis - to build a structural and logical model of the relationship between traditional and digital approaches to the analysis of financial and economic activities; the method of logical generalization of results - to formulate conclusions regarding the advantages, limitations and prospects for the further use of digital technologies in the field of enterprise analytics.

Results. The scientific article reveals key aspects of the digital transformation of methods of financial analysis of enterprises in modern conditions. The possibilities of using software solutions for automating analytical processes in the field of financial and economic management are analyzed. The functional features of the main software products used for financial analysis, forecasting, data visualization and risk assessment are systematized. The advantages of using digital tools are determined, in particular, integration with business processes, the ability to process big data (Big Data), building predictive models and effective support for making management decisions. Special attention is paid to comparing the functionality of such programs as "SAP Business One", "Tableau", "RapidMiner", etc., which made it possible to identify the most appropriate options for enterprises of various scales. It was found that the use of digital analytical platforms provides flexibility, efficiency and accuracy in enterprise management. Software selection criteria are formed, focused on the specifics of economic activity, financial capabilities and strategic goals of the company.

Prospects. In further scientific research, it is proposed to focus on improving the mechanisms for implementing digital technologies in the financial analysis of enterprises, as well as on creating adaptive algorithms for assessing the effectiveness of management decisions based on predictive analytics. It is also advisable to develop a single information platform for integrating accounting,

analytical and strategic functions within the framework of an automated enterprise management system.

Key words: *digitalization, financial analysis, strategic analysis, investment analysis, automation of analytical procedures, financial indicators, forensic diagnostics, forecasting.*

Анотація. *Вступ. Сучасний етап розвитку економіки характеризується стрімким впровадженням цифрових технологій у всі сфери діяльності, зокрема у сферу економічного аналізу підприємств. Цифровізація економічного аналізу є ключовим фактором підвищення ефективності управління підприємством, оперативності прийняття рішень та забезпечення конкурентоспроможності на ринку.*

Зокрема, цифрові інструменти дозволяють автоматизувати процеси збору, обробки та інтерпретації великих масивів фінансових і виробничих даних, що суттєво скорочує час виконання аналітичних робіт і мінімізує ризик людських помилок. Також, використання сучасних програмних продуктів дає змогу формувати інтерактивні звіти, проводити оперативний моніторинг фінансового стану, здійснювати комплексний аналіз з урахуванням зовнішніх чинників та прогнозування розвитку підприємства. Наостанок зауважимо, що цифровізація сприяє підвищенню прозорості й об'єктивності аналітичної інформації, що підсилює довіру з боку інвесторів, партнерів та контролюючих органів.У контексті стрімкої діджиталізації економіки актуальність цифровізації економічного аналізу зростає з кожним роком. Вона є рушієм змін у підходах до оцінки ефективності діяльності підприємства, забезпечує можливість адаптації до змін ринкового середовища та інтеграції інноваційних бізнес-моделей. Таким чином, цифровізація процесу економічного аналізу не лише підвищує його якість та достовірність, а й сприяє розвитку підприємств у сучасних економічних умовах..

Мета. Метою дослідження є розкриття концептуальних підходів до використання діджиталізації у проведенні економічного аналізу підприємства.

Матеріали і методи. Матеріалами дослідження є: встановлені методики, що регламентують процеси цифровізації економічного аналізу підприємств, зокрема щодо впровадження програмного забезпечення для автоматизації аналітичних процедур; наукові праці вітчизняних і зарубіжних фахівців, присвячені питанням трансформації методів економічного аналізу в умовах діджиталізації, а також впровадженню сучасних цифрових платформ для підтримки управлінських рішень.

У процесі здійснення дослідження були використані такі наукові методи: метод теоретичного узагальнення та групування — для систематизації основних цифрових інструментів і програмних рішень, що застосовуються у процесі економічного аналізу підприємства, а також для класифікації їх функціональних можливостей; методи формалізації, аналізу та синтезу — для побудови структурно-логічної моделі взаємозв'язку між традиційними та цифровими підходами до аналізу фінансово-господарської діяльності; метод логічного узагальнення результатів — з метою формулювання висновків щодо переваг, обмежень і перспектив подальшого використання цифрових технологій у сфері аналітики підприємств.

Результати. У науковій статті розкрито ключові аспекти цифрової трансформації методів економічного аналізу підприємств у сучасних умовах. Проаналізовано можливості застосування програмних рішень для автоматизації аналітичних процесів у сфері управління фінансово-господарською діяльністю. Систематизовано функціональні особливості основних програмних продуктів, що використовуються для аналізу фінансового стану, прогнозування, візуалізації даних та оцінки ризиків. Визначено переваги використання цифрових інструментів, зокрема

інтеграція з бізнес-процесами, можливість обробки великих даних (Big Data), побудова прогнозних моделей та ефективна підтримка прийняття управлінських рішень.Окрему увагу приділено порівнянню функціоналу таких програм, як «SAP Business One», «Tableau», «RapidMiner» тощо, що дозволило виявити найбільш доцільні варіанти для підприємств різного масштабу. З'ясовано, що використання цифрових аналітичних платформ забезпечує гнучкість, оперативність та точність в управлінні підприємством. Сформовано критерії вибору програмного забезпечення, орієнтовані на специфіку господарської діяльності, фінансові можливості та стратегічні цілі компанії.

Перспективи. У подальших наукових дослідженнях пропонується зосередити увагу на удосконаленні механізмів впровадження цифрових технологій в економічний аналіз підприємств, а також на створенні адаптивних алгоритмів оцінювання ефективності управлінських рішень на основі прогнозної аналітики. Доцільним є також розроблення єдиної інформаційної платформи для інтеграції облікових, аналітичних і стратегічних функцій в межах автоматизованої системи управління підприємством.

Ключові слова: *цифровізація, економічний аналіз, програмне забезпечення, автоматизація, фінансові показники, аналітичні платформи, управлінські рішення, прогнозування, візуалізація.*

Problem statement. The rapid progress of information and communication technologies leads to the transformation of methodological approaches to financial analysis at enterprises, especially in terms of collecting, processing and interpreting financial and economic data. In the context of increased competition, dynamic market changes, integration of business processes into the global economic space and increasing data volumes, digital solutions are becoming particularly important for increasing the efficiency of management functions.

Using innovative tools, including analytical software, cloud computing, artificial intelligence technologies, and big data analysis (Big Data), provides increased accuracy of analytical calculations, reduced time for information processing and increased validity of management decisions. The introduction of digital technologies contributes to the automation of typical procedures, improved transparency of accounting processes and overall growth of enterprise productivity in the context of digital transformation of the economy.

Analysis of recent research and publications. A significant contribution to the development of concepts and methodological approaches to conducting economic analysis of enterprises in a digitalized environment has been made by domestic scientists. Thus, O.Yu. Boblovsky [1] highlights the role of financial analysis as one of the tools for increasing the efficiency of enterprises in new economic realities, emphasizing the relevance of using digital solutions. I.V. Kobzev, O.F. Melnikov and O.O. Melnikov [2] conduct a thorough analysis of formal methods for forecasting the financial condition of enterprises in conditions of economic instability, emphasizing the advantages of digital modeling as an effective tool for supporting management decisions. L. Novichenko [3] considers the organization of financial analysis taking into account the need to adapt to digital technologies, focusing on the automation of data collection and processing processes. S. Oliferuk [4] analyzes the technical and economic aspects of the enterprise's activities, where the use of digital platforms and specialized software significantly increases the accuracy of the assessment. Yu.V. Orlovskaya and S.O. Mashchenko [5] highlight the transformation of methodological approaches to economic research in the post-industrial era, where digitalization is a key factor in qualitative changes in the analytics system. S.V. Priymak [6] presents a practical approach to financial analysis, which is based on integration with modern digital platforms, which ensures efficiency and flexibility in management. T.R. Portovaras and I.R. Lukanovska [7] assess the possibilities of using software products in the audit and financial analysis process, focusing on their importance

in creating an information base for strategic planning. O.V. Ruzakova [8] provides a characteristic of modern methods for assessing the financial condition of enterprises, indicating the need for their digital transformation and automation. K.D. Semenova [9] analyzes the financial stability of domestic enterprises, outlining digital trends in data visualization and analytical interpretation. N. Senkevych and O. Krause [10] emphasize the importance of digital technologies in the development of financial analysis, especially in the context of digitalization of the national economy. S. Spivak [11] demonstrates the role of computer programs in the implementation of qualitative analysis of financial and economic activities of enterprises, substantiating their effectiveness. O. Tseluiko [12] describes in detail the stages of assessing the effectiveness of the enterprise using automated analytical systems, which is extremely relevant in the digital age. S.V. Cherkasova, V.M. Sorokivskyi and E.S. Banyuk [13] consider the integration of financial analysis and forecasting in the formation of the financial strategy of the enterprise, which is impossible without the use of IT tools. L.V. Chernyshova [14] focuses on the prospects for the development of financial analysis taking into account digitalization, indicating the need to develop new approaches to integrating data into a single digital analytical platform. Thus, the developments of modern Ukrainian scientists indicate a deep understanding of the need for digital transformation of economic analysis as a key component of the enterprise management system. Digitalization allows you to significantly increase the accuracy, speed, and efficiency of analytical procedures, contributing to making informed management decisions.

The purpose The purpose **of the article** is to reveal conceptual approaches to the use of digitalization in conducting financial analysis of an enterprise.

Materials and methods. The research materials are: established methodologies that regulate the processes of digitalization of financial analysis of enterprises, in particular regarding the implementation of software for automating analytical procedures; scientific works of domestic and foreign specialists

devoted to the issues of transformation of financial analysis methods in the context of digitalization , as well as the implementation of modern digital platforms to support management decisions.

The following scientific methods were used in the research: the method of theoretical generalization and grouping - to systematize the main digital tools and software solutions used in the process of financial analysis of an enterprise, as well as to classify their functional capabilities; methods of formalization, analysis and synthesis - to build a structural and logical model of the relationship between traditional and digital approaches to the analysis of financial and economic activities; the method of logical generalization of results - to formulate conclusions regarding the advantages, limitations and prospects for the further use of digital technologies in the field of enterprise analytics.

Presentation of the main material. The main function of financial analysis of business entities is to identify the main patterns and dynamics of transformations of economic phenomena, to establish and assess key determinants that positively or negatively affect the results of the enterprise's activities, to determine priority vectors of development, efficiency of capital investments, as well as to analyze the financial stability and competitive position of market entities. Analysis of economic information is a powerful tool for improving the tax, accounting, investment, credit and marketing policies of organizations. It is the basis for ensuring effective economic activity, as it allows you to assess the functionality of the enterprise, predict future scenarios of its development, identify production reserves and outline ways to increase overall efficiency. In the process of deepening market processes, the range of application of analytical tools is constantly increasing.

Maximizing the effectiveness of analytical research requires a clear understanding of the specifics of each type of economic analysis, their nature and functional features. Among the key forms of modern economic analysis are the following:

Operational analysis is a system of daily monitoring and assessment of deviations of actual performance indicators of an enterprise from planned standards, analysis of the causes of such changes and their possible consequences, as well as development of urgent management decisions aimed at supporting the stable functioning of the organization. Its regular implementation contributes to increasing the flexibility of the company in an unstable market environment through the functions of planning, coordination of actions and organization. The advantage of this type of analysis is the ability to respond in a timely manner to changes in the situation. Its effectiveness directly depends on the ability to perform analytical actions in real time. Modern digital solutions for enterprise management provide effective support for operational analysis [1].

Financial analysis involves the development of financial plans and forecasts and is aimed at stabilizing the financial condition of the company and increasing the efficiency of its activities. Its main goal is to find ways to increase profitability, economic stability and reliability of fulfilling obligations to external partners. The source of data is accounting and financial reporting, and the results of the analysis allow making informed decisions regarding the further financial policy of the enterprise [8].

Strategic analysis is based on a comprehensive study of both internal and external conditions of the enterprise's functioning, allows for an analysis of resource potential, assessment of market opportunities, formulation of the mission and long-term goals of the company. Its use minimizes risks when making strategic decisions, allows identifying threats and opportunities that arise in the market environment, and also selects appropriate response mechanisms. It helps to identify competitive advantages, weaknesses, and strengths of the company. Such analysis is used at all stages of strategic management - from development to implementation and monitoring. The absence of strategic analysis leads to wrong decisions, weak response to market challenges, which negatively affects the market positions of the enterprise [11; 13].

Functional-cost analysis is aimed at identifying internal savings reserves within the use of material, labor and financial resources. It can be interpreted as a component of an integrated analysis of economic activity. Based on the results of this analysis, alternative options for action are formed, each of which allows for a certain economic effect and cost reduction.

In the context of instability and uncertainty of the economic business environment and increased corruption risks, the need to conduct Forensic diagnostics as a tool for preventing fraudulent actions and corruption schemes. This type of financial analysis involves conducting preventive analytical procedures aimed at identifying risks of possible fraud in such business processes as procurement, production, sales, and unjustified administrative and sales expenses.

Financial diagnostic analysis is aimed at assessing the potential financial insolvency of enterprises. Its main task is to identify the causes of the deterioration of the financial condition, analyze the factors leading to the crisis, and develop a program to restore solvency. It is the basis for determining the causes of bankruptcy and substantiating measures for financial recovery [10].

Investment analysis provides an assessment of the organization's investment activity, determination of the effectiveness of investments, as well as potential opportunities for their increase. Its key tasks are to identify external and internal influences on investments, as well as analysis of economic dynamics indicators, forecasting and making management decisions regarding the feasibility and effectiveness of investments.

Innovation analysis is focused on studying the innovative potential of an enterprise, assessing the effectiveness of implementing new technologies, products or approaches. Effective innovation is a driver of development for both individual companies and the national economy as a whole. Such analysis requires the use of modern analytical tools that cover the assessment of both processes and results of innovation.

Marketing analysis focuses on assessing the feasibility of selling goods or services in a specific market, analyzing the commercial potential of the project , and forecasting expected profits. The collection and analysis of market information allows you to form a development strategy and adapt the enterprise to changes in consumer preferences [3; 4; 5].

In today's environment, financial analysis is reaching a new level thanks to the active implementation of digital technologies that provide more accurate, operational and scalable analytics. Digital methods allow you to move from traditional post- factum assessment to predictive analytics (analytics), which is based on processing large amounts of data (Big Data), machine learning and artificial intelligence. Software products for analysis also contribute to a significant reduction in the time required to calculate key performance indicators. Given the positive experience of using computerized systems, it can be argued that their use in the process of economic analysis is effective and has significant advantages compared to traditional methods [11]. Today, there are many different programs designed to analyze the financial condition of enterprises. In most companies, managers often choose universal software tools, since they are easily configurable and can be adapted to the specifics of accounting in various industries. In addition, programs that allow you to configure algorithms for calculating key financial indicators and create your own analysis methods are popular. This gives users the opportunity to more flexibly configure the system to suit their needs. However, from the point of view of developers, creating such customizable systems is a more complex and expensive process. Among the most popular programs for analyzing the financial condition of enterprises are: "EXCEL", "INEK-Analytik", "Audit Expert", "Project Expert", "Financial Analysis", "Prime Expert", "Financial Analysis", "QuickBooks", "RapidMiner", "SAP Business One", "Tableau" and "AIS" (Accounting Information System) [7]. The main features of the listed programs are presented in Table 1.

Table 1

Key features of programs for automating the financial analysis process

Program name	Characteristic
"EXCEL"	A powerful tool for data processing and analysis that allows you to create financial models, calculate ratios, build graphs and tables to assess the financial condition of an enterprise
"INEK-Analyst"	Specialized software for automating the analysis and forecasting of financial indicators, allowing for a comprehensive analysis of financial reports and identifying the strengths and weaknesses of the enterprise
« Audit Expert »	An audit tool that allows you to analyze financial and accounting reports, determine compliance with legal requirements, and assess financial risks
"Project Expert "	A program for analyzing and planning projects, including estimating financial resources, costs, and revenues, which allows for effective project management at all stages of their implementation.
"Financial analysis"	A tool for comprehensive financial analysis that allows you to calculate key financial indicators, analyze liquidity, profitability, and efficiency of use of enterprise resources
« Prime Expert »	A program for analyzing the financial performance of an enterprise, including calculating financial ratios, building forecasts, and analyzing risks, which allows you to make informed management decisions
« Financial Analysis »	Powerful software for in-depth financial analysis, including calculation and evaluation of financial indicators, analysis of the efficiency of asset and capital use of the enterprise
« QuickBooks »	Accounting software for small and medium-sized businesses, which includes functions for accounting, tax calculation, financial reporting, and financial analysis of the company
« RapidMiner »	A big data analytics platform that enables you to forecast financial performance, analyze trends, and find hidden patterns in data to help you make informed decisions
"SAP Business One »	An integrated ERP solution for managing all aspects of a company's operations, including finances, which allows you to analyze financial data and control expenses and income at all levels
« Tableau »	A data visualization program that allows you to create interactive graphs, tables, and charts for analyzing financial information, helping you quickly gain insight into your financial situation.
"AIS"	A system for automating accounting and processing financial information, allowing for operational financial analysis, monitoring of financial results and reporting

Source: based on [17-26]

As we can see, in 2024, several software solutions are recommended for automating financial analysis of enterprises, each of which has its own specific advantages, depending on the needs of a particular company. One of the most versatile tools is "EXCEL", which remains popular due to its accessibility and ability to perform basic financial calculations and create various models. For medium and large companies, the most effective is "SAP Business One ", which

allows you to integrate financial analysis with other business functions, which, in turn, helps reduce costs and increase overall management efficiency.

Also worth noting is " Tableau " [26], which is distinguished by its ability to create visual visualizations of financial data, which helps to quickly and accurately make informed management decisions. For enterprises that work with large amounts of data, tools such as " RapidMiner " and " Audit Expert ", which provide in-depth analysis and audit of financial indicators. The program " QuickBooks " is an ideal choice for small and medium-sized companies, as it provides ease of use and effective automation of accounting and tax calculations. Table. 2 compares the capabilities of software for automating the process of conducting financial analysis.

As we can see, according to the comparison, each of the software products for automating financial analysis has its own unique advantages and disadvantages. Programs such as "EXCEL" and "QuickBooks" [23] are convenient for basic financial calculations and analysis, they are easy to use and well suited for small businesses.

However, they do not support big data analysis and forecasting, which limits their capabilities for more complex analysis. Software products such as SAP Business One One" [25] and "RapidMiner" [24], have the broadest functionality, including integration with other business processes, big data analysis, forecasting, and risk assessment, making them effective for medium and large enterprises. But even the most powerful programs, such as SAP Business One, One" and "RapidMiner", have their own specifics and requirements for implementation, which can be a complex and expensive process for some organizations.

Table 2

Comparison of analytical capabilities of software

Name programs	Financial performance analysis	Cost and revenue analysis	Progno - calling	Data visualization	Big data analysis	Risk assessment	Creating financial models	Integration support
"EXCEL"	+	+	+	+	-	-	+	+
"INEK-Analyst"	+	+	+	-	-	+	+	-
« Audit Expert »	+	+	-	-	-	+	-	-
"Project Expert "	+	+	+	-	-	+	+	-
"Financial analysis"	+	+	+	-	-	-	+	-
« Prime Expert »	+	+	+	-	-	+	+	-
« Financial Analysis »	+	+	+	-	-	+	+	-
« QuickBooks »	+	+	-	-	-	-	-	+
« RapidMiner »	+	+	+	+	+	+	+	+
"SAP Business One »	+	+	+	+	+	+	+	+
« Tableau »	+	+	+	+	-	-	+	+
"AIS"	+	+	-	-	-	-	-	+

Source: constructed by the authors based on [17-26]

In this context, the most optimal choice for medium-sized enterprises is "SAP Business One", which combines powerful analytical tools and the ability to integrate with other business functions, providing a high level of automation and efficiency of management decisions. "Tableau" [26] is also an excellent option for those who focus on data visualization and quick decision-making, but its functionality is limited compared to other complex systems.

The use of software products opens up new opportunities for the development of audit and analytical activities of the enterprise. Due to the importance of computerization of analysis and audit, the main tasks of modern

management systems are to identify software shortcomings during its practical use for further improvement. In addition, it is important to form criteria for selecting software products that meet the needs of the enterprise, as well as regularly conduct training for analysts to improve their qualifications. Taking into account management risks is also an important aspect in software development. The proposed criteria for selecting software products will help to assess their compliance with management requirements, efficiency and effectiveness in the process of analysis and decision-making.

Conclusions and prospects for further research. Thus, to achieve the efficiency and effectiveness of financial analysis, it is necessary to adhere to several basic principles that ensure the accuracy and effectiveness of this process. Firstly, this is a scientific approach based on modern research methods, a systemic approach that involves considering the enterprise as a holistic structure with interconnected elements, as well as comprehensiveness that covers all aspects of activity for a complete analysis of its financial condition. Important factors are also periodicity and reliability that guarantee the relevance and accuracy of the results, as well as efficiency that allows you to quickly respond to changes in market conditions.

The results of the analysis should be practically oriented and effective, helping to identify problems in a timely manner and make optimal management decisions. Since the objects of analysis change over time, it is important to take into account the dynamics of their indicators and processes in the context of enterprise development.

Analysis of software products for automating financial analysis shows that each of them has its own strengths and weaknesses, which depends on the specifics of the company's activities and its needs. For small businesses, where ease of use and basic functionality are important, the best choice are programs like "EXCEL" and " QuickBooks ", which allow you to perform basic financial analysis and data processing without the need for complex settings. However, for

medium and large companies, where greater integration with other business processes and the ability to analyze big data are required, solutions like "SAP Business One" or "RapidMiner", which provide powerful analytical capabilities and help with forecasting and risk assessment. While powerful programs have many features, their implementation can be complex and expensive, requiring significant resources for staff training and system adaptation. Therefore, it is important to choose software that matches the size of the enterprise, its budget and long-term goals, as well as constantly improve the skills of analysts.

Literature

1. Boblovsky O.Yu. The role of economic analysis in increasing the efficiency of enterprise activities. 2022. URL: https://repo.btu.kharkov.ua/bitstream/123456789/1661/1/6_conference_URSES _DBTU_22-62-64.pdf (access date: 02.04.2025).

2. Kobzev I.V., Melnikov O.F., Melnikov O.O. Analysis of methods for assessing the financial condition of an enterprise suitable for forecasting at the formal level in conditions of unstable economic development. *International Science Journal of Managemen, Economics & Finance.* 2023. Vol. 2, No. 5. P. 80-94. DOI: 10.46299/j.isjmef.20230205.06.

3. Novichenko L. Organization of economic analysis at the enterprise. *Economic analysis: collection of scientific works.* 2022. Vol. 32, No. 1. P. 204-205. https://doi.org/10.35774/econa2022.01.199.

4. Oliferuk S. Technical and economic analysis and its role in increasing the efficiency of enterprise activities. *Spatial development*. 2024. P. 468–477. https://doi.org/10.32347/2786-7269.2024.7.468-477.

5. Orlovska Y.V., Mashchenko S.O. Transformation of economic research methods in the post-industrial era. *Economic Space*. 2021. No. 173. P. 84-90. https://doi.org/10.32782/2224-6282/173-16.

6. Pryimak S.V. Financial Analysis. Practical Course: Textbook. Lviv, 2021. 264 p.

7. Portovaras T. R., Lukanovska I. R. Evaluation of software products for the needs of analysis and audit of the activities of a business entity. *Business Inform.* 2024. No. 5. P .227-235.

8. Ruzakova O.V. Analysis of modern methods of assessing the financial condition of an enterprise. *Bulletin of Khmelnytsky National University.* 2022. Vol. 1, No. 2. P. 7-13. https://doi.org/10.31891/2307-5740-2022-304-2(1)-1.

9. Semenova K.D. Analysis of the financial condition of Ukrainian enterprises and development trends. *Scientific Bulletin of the Odessa National Economic University.* 2021. No. 5-6 (282-283). P. 77-82. DOI:10.32680/2409-9260-2021-5-6-282-283-77-82.

10. Senkevych N., Krause O. Economic analysis: development prospects in the context of digitalization of the economy. *Galician Economic Bulletin*. 2023. No. 2 (81). P. 7-15. https://doi.org/10.33108/galicianvisnyk_tntu2023.02.007.

11. Spivak S. The role of computer programs for analyzing the financial and economic condition of an enterprise. *Socio-economic problems and the state*. 2021. Issue. 2 (25). P. 702-707. URL: http://sepd.tntu.edu.ua/images/stories/pdf/2021/21ssmgsp.pdf (date of application: 02.04.2025).

12. Tseluyko O. Where to start evaluating the performance of an enterprise: detailed analysis and suggestions to the owner. 2022. 73 p.

13. Cherkasova S.V., Sorokivskyi V.M., Banyuk E.S. Financial analysis and forecasting as the basis for forming the financial strategy of an enterprise. *Pryazovskyi economic bulletin*. 2019. Issue. 6. No. 15. P. 329-333. https://doi.org/10.32840/2522-4263/2019-5-56.

14. Chernyshova L.V. Economic analysis of business entities: development prospects. *Scientific Bulletin Jof the Odessa National Economic University*. 2022. No. 8 (297). P. 40-47. DOI:10.32680/2409-9260-2022-8-297-40-47.

15. Yunatskyi M.O. Review of modern methods of forecasting the financial condition of an enterprise. *Effective Economy*. 2018. No. 4. URL: http://www.economy.nayka.com.ua/pdf/4_2018/42.pdf (date of application: 02.04.2025).

16. Khymich I., Riznyk N. Financial and economic analysis of enterprises: the basis for predicting positive results in times of crisis. *International Scientific Journal of Management, Economics and Finance.* 2024. No. 3 (1). P. 62-71. https://doi.org/10.46299/j.isjmef.20240301.06.

17. *Official Microsoft website.* URL: https://www.microsoft.com/uk-ua/microsoft-365/excel (accessed 02.04.2025).

18. *Official AIS website.* URL: https://www.ais.ua/ (access date 02.04.2025).

19. *Official Audit website Expert.* URL: https://auditexpert.com.ua/ (access date 02.04.2025).

20. *Official ExpertSoft website.* URL: https://www.expertsoft.com.ua/ (access date 02.04.2025).

21. *Official website Financial Analysis.* URL: https://www.financial-analysis.com/ (access date 02.04.2025).

22. *Official website of Project Expert.* URL: http://www.progexpert.com.ua/ (access date 02.04.2025).

23. *QuickBooks official website.* URL: https://quickbooks.intuit.com/ (accessed 04/02/2025).

24. *RapidMiner official website.* URL: https://www.rapidminer.com/ (access date 02.04.2025).

25. *Official SAP website.* URL: https://www.sap.com/products/business-one.html (accessed 02.04.2025).

26. *Tableau official website.* URL: https://www.tableau.com/ (accessed 04/02/2025).