Accounting as an information system in the management of a modern enterprise

Dovzhyk Olena Oleksandrivna,

candidate of economic sciences, Associate Professor at Department of accounting and Taxation Sumy National Agrarian University, 160 Herasyma Kondratieva Street, Sumy, 40000, Ukraine

e-mail: lgamanenko@ukr.net, https://orcid.org/0000-0001-6547-1418

Abstract. The purpose of this article is to present accounting as an information system useful in the management of the enterprise. Financial accounting plays a key role as the information base for business management, providing management with the necessary data to make informed decisions. Financial statements are an integral part of business management, as they reflect the financial position, results of operations and cash flows. Studies emphasise the importance of financial statements as a tool for performance evaluation and strategic decision-making.

The article defines accounting as an information system of an enterprise. The importance and scope of information provided by financial and management accounting for effective enterprise management are revealed, and current trends in accounting development are analysed. A generalised and multi-level approach to understanding accounting as a key information system used in enterprise management is presented. Accounting is considered as an information model that reflects the real processes at an enterprise. It provides complete, reliable and timely information that influences the decisions of business entities and, consequently, the country's economy. Modern research emphasises the need to adapt accounting to the needs of business management. This includes the introduction of new methods and

approaches to increase the relevance of accounting information in the management decision-making process.

Effective organisation of financial accounting involves a clear definition of stages, documents and specialists involved. The correct organisation of the accounting process contributes to improving management efficiency and achieving the strategic goals of the enterprise. Management accounting provides managers with the necessary information in a convenient form and with an appropriate degree of accuracy, which facilitates the adoption of sound management decisions. The effectiveness of the enterprise management system largely depends on the quality of accounting information. Thus, the article emphasises the importance of financial accounting as the basis of the enterprise information system, which ensures efficient management and achievement of strategic goals.

Keywords: financial accounting, management accounting, information system.

Бухгалтерський облік як інформаційна система в управлінні сучасним підприємством

Довжик Олена Олександрівна,

кандидат економічних наук, доцент кафедри обліку і оподаткування Сумський національний аграрний університет, вулиця Герасима Кондратьєва, 160, Суми, 40000, Україна

e-mail: lgamanenko@ukr.net, https://orcid.org/0000-0001-6547-1418

Анотація. Метою даної статті є представлення бухгалтерського обліку як інформаційної системи, корисної в управлінні підприємством. Фінансовий облік відіграє ключову роль як інформаційна база для управління підприємством, забезпечуючи керівництво необхідними даними для прийняття обгрунтованих рішень. Фінансова звітність є невід'ємною складовою управління підприємством, оскільки вона відображає фінансовий

стан, результати діяльності та рух грошових коштів. Дослідження підкреслюють важливість фінансової звітності як інструменту для оцінки ефективності та прийняття стратегічних рішень.

У статті бухгалтерський облік визначається як інформаційна система підприємства. Розкрито значення та обсяг інформації, яку надає фінансовий і управлінський облік для ефективного керування підприємством, а також проаналізовано сучасні тенденції розвитку обліку. Представлено узагальнений та багаторівневий підхід до розуміння бухгалтерського обліку як ключової інформаційної системи, що використовується в управлінні підприємством. Бухгалтерський облік розглядається як інформаційна модель, що відображає реальні процеси на підприємстві. Він забезпечує повну, достовірну та оперативну інформацію, яка впливає на рішення суб'єктів господарювання та, відповідно, на економіку країни. Сучасні дослідження акцентують увагу на необхідності адаптації бухгалтерського обліку до потреб управління бізнесом. Це включає впровадження нових методів та підходів для підвищення релевантності облікової інформації в процесі прийняття управлінських рішень.

Ефективна організація фінансового обліку передбачає чітке визначення етапів, документів та залучених фахівців. Правильна організація облікового процесу сприяє підвищенню ефективності управління та досягненню стратегічних цілей підприємства. Управлінський облік забезпечує менеджерів необхідною інформацією у зручній формі та з відповідним ступенем точності, що сприяє прийняттю обґрунтованих управлінських рішень. Ефективність системи управління підприємством значною мірою залежить від якості облікової інформації. Таким чином, у статті підкреслюється важливість фінансового обліку як основи інформаційної системи підприємства, яка забезпечує ефективне управління та досягнення стратегічних цілей.

Ключові слова: фінансовий облік, управлінський облік, інформаційна система.

Introduction. The dynamism and complexity of civilizational changes that the economy is currently experiencing, the increase in the number of companies operating in the market, and the sharpness of competition between them make managing a modern enterprise an extremely difficult task. Today, to achieve market success, it is not enough to adapt to the changes that are taking place, it is also necessary to anticipate them and prepare for them accordingly.

At an enterprise, the accounting system is a source of knowledge about human potential and achievements. It provides users with information that is useful in the process of making economic decisions, especially financial ones. This also provides the basis for holding management accountable for the consequences of managing the company's assets.

The ability to receive information, the speed and methods of its processing, and the possibility of its use are today the factors that determine the competitiveness of an enterprise in the market.

Analysis of recent research and publications. Within the framework of accounting of a business entity, two subsystems can be distinguished: financial and management accounting. Accounting is developing rapidly and is significantly influenced by social, economic, technical and informational processes [1].

Some scientists note that the basis of the accounting information system is considered to be accounting tasks, the purpose of which is to obtain information about the actual state of certain types of assets, liabilities, and equity. At the same time, the volume of accounting information and its content for external users are determined under the influence of contradictions between the direct owners of the information (the economic entity) and its potential users [2].

Accounting, like any other component of business, requires national supervision and recognition between states. Under modern conditions, the system of accounting for costs, income and financial results of a company cannot fully exist

until there is an appropriate regulatory framework. The point is that if the regulatory framework is not analyzed, it is impossible to fully assess and research the results. Such provision has been formed over the past two decades and is in the process of constant changes, which are accompanied by economic, political, integration, social and other factors [3]. Accounting requires regulation by the state and recognition at the interstate level, and the accounting system for expenses, income, and financial results of an enterprise in modern conditions cannot fully exist without an appropriate regulatory and legal framework, and the essence of financial results cannot be adequately assessed and investigated without analyzing the relevant regulatory and legal framework [4]. Some theoretical and practical aspects of using the financial accounting system as a tool for effective management of the financial stability of a business are considered in the works of domestic scientists [5]. Theoretical aspects of assessing the financial stability of an enterprise are also considered, since this is one of the main conditions for its vital activity, development and ensuring high competitiveness. The article analyzes the essence, role and importance of the financial stability of an enterprise, identifies the main factors influencing it, and considers the most optimal methods for its assessment [6].

In their research, scientists substantiate the role and significance of accounting in the enterprise management information system as a specific management function. In his opinion, the quintessence of organizing and maintaining accounting is the collection, generation, processing and provision of information about the activities of the enterprise. And the role of accounting as an information system is not only to record information in reporting on events that took place in past reporting periods, but primarily to help and facilitate the enterprise management system to determine current and strategic goals of activity and model future management decisions [7].

In modern conditions, the main trend is the globalization of accounting, and the accounting information system plays a key role in managing the future development of the business and serves as the basis for decision-making. Thus, the use of data from the accounting information system contributes to more effective decision-making [8].

A study of domestic experts confirmed that accounting and analytical support is the basis for developing financial strategies, setting key target indicators, and assessing the consequences of management decisions for financial results [9].

The ultimate goal of all business organizations is to continue operating. At this stage, the technological revolution has become a challenge that organizations must meet to gain a competitive advantage and succeed in their industry. Organizations now need a successful and well-organized accounting information system that helps them achieve strategic, competitive and business goals [10]. However, currently, many companies have not been able to produce quality accounting information, useful for decision-making [11].

Digital technologies have revolutionized our daily lives. The rapid development of information technology has made accounting increasingly dependent on accounting information systems. And this transformation leads to more digital accounting, faster processes, and more accurate information [12]. Most companies seek to expand their presence in the competitive market by applying various strategies and methods to improve overall performance [13]. According to Damerji and Salimi, AI has helped accountants by allowing them to cope with complex figures and data, learn new systems quickly, and spend less time on administrative activities. This has allowed them to devote more time to strategic decision-making [14].

Scientists emphasize in their research that one of the most important parts of any organization is its financial and accounting infrastructure. And it is this that demonstrates how well it works and how far it can go [15].

Setting objectives. The purpose of this article is to present accounting as an information system useful in the management of the enterprise.

Results. The word "information" comes from the Latin "informatio" and is a concept that is difficult to define. Information must have properties that allow it to be evaluated and assessed for usefulness, and information can be considered useful

when it brings the information user closer to achieving the intended goal. Thus, the quality of information is determined by the following attributes: timeliness, error-freeness, accuracy, accessibility, relevance, unambiguousness, completeness, neutrality, comparability, usefulness, consistency and verifiability.

Information sources at the enterprise can be divided into: registered (internal) and unregistered (external), with the former having the main importance in decision-making processes. External sources are only an additional element.

The importance of information in the process of enterprise management has been noted and assessed. It is increasingly considered as the fourth factor of production.

The enterprise information system is a multi-level structure that allows the user, using accepted models and procedures, to transform specific input information into output. Its scope covers all elements of the information flow process, i.e. determining the categories of necessary information and sources of its receipt, collection, recording, reading, processing, storage, exchange and transmission of information.

For management, the enterprise information system must take into account three categories of needs: i.e. providing knowledge about the current state of the subject, collecting analytical and predictive knowledge and expert knowledge used in decision-making processes.

From the point of view of the theory of economic information and the theory of economic decisions, accounting is an information system of the enterprise. The components of this system are: filter, model, transmission channel, decoder, decision rule and utility function of the user of this information system. In accounting, operations perform the function of a filter for collecting information in the external and internal environment of the business entity and measuring its utility. The model, whose task is to encode the received information in a way that is preferred by users, is a registration system developed in accordance with the principles of accounting, working on the basis of source and secondary documents.

Another element of the information system is the transmission channel, which converts input signals into output. In the accounting system, the recording signals are the information contained in synthetic and analytical accounts. The output signals are financial statements, which are the final product of accounting. An extremely important element of the system under consideration is the decoder, whose task is to process the output signals into information useful to recipients. In the case of accounting, the analysis of reports acts as a decoder. The perception of information obtained as a result of the analysis of the enterprise's financial statements is a very important characteristic of the individualized user, which is determined by his basic knowledge and experience. Actions taken on the basis of information obtained as a result of the analysis are part of the decision-making rules of the system. The results of this activity create the area of the utility function, which reflects the level of satisfaction of the user's information needs.

Maximizing the usability of the system is possible only if all its components are serviced. Therefore, its interpretation and assessment of the actions taken on its basis are as important as the preparation of financial statements.

Literature studies conducted on the concept of accounting confirm the belief that it is an information system of the enterprise. Each of the analyzed definitions contained such terms as "system", "information system", "information", "financial information", "information needs of users". Accounting serves both internal and external stakeholders who use the information generated by this system to make various decisions. Depending on the volume of incoming information, its nature and the processing procedures used, accounting can: record transactions carried out in the enterprise and report on their consequences, as well as perform complex calculation operations and present the result with information that is often unique, adapted to a specific decision-making process.

Within accounting, two subsystems can be distinguished: financial and management accounting, which play different roles in the management process.

Financial accounting deals with the description of the assets and financial condition of the enterprise and its financial result. This image is transmitted to

recipients in the form of financial statements, the form, scope and frequency of preparation of which are regulated by legal provisions established at the national level. It is based on factual information, creating a retrospective system. It provides information mainly to external users, although it is increasingly and widely used by internal recipients, such as company management, for whom the analysis of financial statements is an opportunity to capture trends in changes occurring in the company. property, sources of its financing and the effectiveness of the unit's activities. The main product of financial accounting is financial reporting.

Management accounting performs various functions in the organization and affects various aspects of its activities. One of the most important functions is planning. Management accounting helps to define business objectives, create budgets, forecast future trends, and prepare financial plans for different scenarios.

Another important function is control. Management accounting focuses, among other things, on: monitoring the operational and financial activities of an organization by comparing actual results with planned or expected results, which allows for a continuous assessment of the effectiveness of the implementation of plans. Management accounting also plays an important role in decision-making. For example, it can help managers understand the profitability of different products, services, or market segments, allowing them to develop ways to optimize resources and maximize profits.

Management accounting is also important in the context of communication within a company. It ensures the exchange of financial and operational information between different levels of management. Through reports and analysis, managers can share important data and indicators with other members of the organization, allowing everyone to better understand the situation in the company.

While financial accounting focuses on preparing financial reports for external stakeholders (shareholders, creditors, or legislators), management accounting is intended for internal use. The two types of accounting also differ in their purpose: financial accounting is about providing financial information to external

stakeholders, and management accounting is about providing financial information to internal stakeholders (such as managers or executives).

In addition, the difference arises at the level of information processed. Financial accounting focuses on the production of financial statements that comply with generally accepted accounting principles (GAAP) or International Financial Reporting Standards (IFRS). Management covers a wider range of information, both financial and non-financial.

In the case of financial accounting, reports are usually produced at the end of the financial year, although quarterly and semi-annual reports are equally common. In turn, management accounting can and is usually carried out more frequently, for example monthly or weekly - it depends on the needs of the organization.

The issue of regulation is also an important difference. Financial accounting is strictly regulated by law and must comply with certain accounting standards. As for management accounting, there is no detailed regulation, because its main purpose is to provide information for internal use. This does not change the fact that management accounting standards are often determined by internal regulations and provisions.

Management accounting and controlling are two elements of an enterprise's information system and help in effective management. Although they have their own unique characteristics, they are closely related and often interwoven to help an organization achieve its goals. In practice, the lines separating these two functions can be blurred, and some organizations may even combine them into one department.

This does not change the fact that management accounting and controlling have similar goals, such as supporting management decisions, planning, and control. They differ, among other things: in terms of the role played. Management accounting focuses on the collection, analysis, and reporting of financial and non-financial operational data that is used in an organization for decision-making. Controlling is a broader concept – it encompasses not only management accounting, but also the strategic planning, coordination, and control of a company's activities.

Another notable difference is the volume of data. Management accounting focuses on historical and current data. Controlling, on the other hand, may involve not only historical data analysis but also future forecasting, scenario analysis and modelling. The scope of data is related to the time perspective – management accounting focuses on short-term information and decisions, while controlling covers both the short and long term.

Management accounting includes many different types of analysis and methods. By understanding and managing different aspects, managers can better control operations, plan future activities, and make decisions that will help the organization achieve its goals.

Speaking about the place of accounting in the enterprise management system, one cannot fail to mention behavioral accounting, which takes into account the personality and behavior of information recipients. According to Professor Kamela-Sowinska, "we overestimate the importance of mathematical models and underestimate the humanistic approach, which leads to the creation of risk assessment models that only slightly reflect reality."

The variability and complexity of the environment of modern enterprises, the number of companies operating on the market, and the fierce competition between them make process management difficult. In every management process, the enterprise's information system plays a fundamental role. It is impossible to make the right decisions without having a reliable, modern, and effective system for collecting and processing information about the entity and its environment.

Accounting is based on a simple rule - all transactions, financial and economic, that an enterprise carries out in the course of its activities must be registered. This is the function of accounting - to record these transactions in order to inform the owner and investors of the business about the financial condition of the company, about the results of its activities and cash flow. This is especially important in conditions of economic instability, when timely information about the financial condition of the company can help business owners save it from bankruptcy, preserve property or attract the necessary investments. Thus, financial

accounting provides the company's management with accurate financial data for making informed decisions. And the organization of this accounting itself allows you to: determine a taxation strategy; establish control over cash flows, which reduces the risks of errors, abuse and fraud; establish control over the rational use of material and labor resources; improve the documentation of business transactions, etc.

Conclusions. The research confirms that the source of knowledge about the potential of the enterprise and the results of its management is accounting, within which two subsystems can be distinguished: financial and management accounting.

Traditionally, it is believed that financial accounting is addressed to external users, while management accounting is addressed to the management of the enterprise and management personnel. However, at present, the idea that this division is of a historical nature is becoming more widespread, in the context of the scope of applied accounting principles, tools and recipients, we should talk about one accounting - accounting focused on successful management of the enterprise.

References

- 1. Pushkar *M*. Management accounting a component of the general accounting information system. *Bulletin of Economics*. 2024. 1: P. 94-110. https://doi.org/10.35774/.
- 2. Kucherenko T., Olyadnichuk N., & Krachok L. (2024). Accounting information system: content and structure. Sustainable Development of Economy, (3(50), 15-20. https://doi.org/10.32782/2308-1988/2024-50-3
- 3. Shvets V.G. Theory of accounting: a textbook. 4th ed. Kyiv, Knowledge, 2015.
- 4. Galushchak I.E., Lucsiv N.L. Accounting and reporting in the enterprise management system. *Current problems of regional economic development. Issue* 17. Vol. 1 2021. 233-245.

- 5. Shepel I. Using the financial accounting system as a tool for effective management of the financial stability of Internet business. *Scientific notes of the Lviv University of Business and Law.* Issue 38. 2023. P. 393-402.
- 6. Baranivskyi O. A. Theoretical aspects of assessing the financial stability of an enterprise. *Economy and Society*. 2018. No. 15. P. 206–212. URL: https://economyandsociety.in.ua/journals/15_ukr/32.pdf (access date: 20.08.2023).
- 7. Zasadny B. A. Accounting in the enterprise management information system. *Scientific Bulletin of Kherson State University. Economic Sciences.* 2016. 17(1). P. 146-149. URL:http://nbuv.gov.ua/UJRN/Nvkhdu_en_2016_17(1)__40.
- 8. Скрипник, С. В., Шепель, І. В., & Головчак, Г. В. Бухгалтерський облік в єдиному інформаційному просторі підприємства. *Інноваційа* економіка. 1-2'2021Науково-виробничий журнал с. 158-165
- 9. Moklyak T. V. The role of accounting and analytical support in the process of managing financial results. *Current Issues in Economic Sciences*. 2024 (6). https://doi.org/10.5281/zenodo.14289613
- 10. Aws Al-Okailya, Manaf Al-Okailyb, Fadi Shiyyabc and Walid Masadahc. Accounting information system effectiveness from an organizational perspective. *Management Science Letters* 10. 2020. P.3991–4000
- 11. Suzan L., Mulyani, S., Sukmadilaga C., Farida I. Empirical Testing of the Implementation of Supply Chain Management and Successful Supporting Factors of Management Accounting Information *Systems. Int. J. Sup. Chain. Mgt.* **2019**. 8, 629. URL: https://surl.li/qbdgpz
- 12. Monteiro A., & Cepêda C. Accounting Information Systems: scientific production and trends in research. *Systems*. 2021. *9*(3). 67. https://doi.org/10.3390/systems9030067
- 13. Vincent, V.Z., & Zakkariya, K.A. Role of Business Incubation on The Financial and Non-Financial Performance of Technology Startups: A Multivariate Multiple Regression Analysis. *Journal of Entrepreneurship Education*. 2021. 24(5). P. 1-16.

- 14. Damerji H., & Salimi, A. Mediating effect of use perceptions on technology readiness and adoption of artificial intelligence in accounting. *Accounting Education*. 2021. 30(2). P. 107-130.
- 15. Solikin, Ikin, and Deni Darmawan. Impact of artificial intelligence in improving the effectiveness of accounting information systems." *Journal of Wireless Mobile Networks, Ubiquitous Computing, and Dependable Applications* 14.2 2023. P. 82-93.