DOI: 10.15276/ETR.01.2024.10 DOI: 10.5281/zenodo.10951553 UDC: 338.001 JEL: D83, L22, M15, O33

# INFORMATION SUPPORT AND ITS ROLE IN ENTERPRISE MANAGEMENT

# ІНФОРМАЦІЙНЕ ЗАБЕЗПЕЧЕННЯ ТА ЙОГО РОЛЬ В УПРАВЛІННІ ПІДПРИЄМСТВОМ

Vitaliy I. Zakharchenko, Doctor of Economic Sciences, Professor Odesa Polytechnic National University, Odesa, Ukraine ORCID: 0000-0003-2903-2471 Email: v.i.zaharchenko@op.edu.ua

> Maksym D. Shvahirev Odesa National Economic University, Odesa, Ukraine ORCID: 0000-0002-7452-5091 Email: max.shvagirev99@gmail.com

> > Received 14.02.2024

Захарченко В.І., Швагірев М.Д. Інформаційне забезпечення та його роль в управлінні підприємством. Оглядова стаття.

У статті розглядаються та аналізуються сучасні наукові підходи до визначення поняття інформаційного забезпечення в менеджменті. Формулюються сутнісні характеристики інформаційного забезпечення. Складено перелік вимог до інформаційного забезпечення, який основними цілями інформаційного визначається забезпечення, зокрема наданням актуальної інформації, оперативним наданням інформації та створенням умов для запобігання несанкціонованому доступу. Інформаційне забезпечення пропонується розглядати як особливий вид професійної діяльності, як систему ресурсного забезпечення, як компонент систем і процесів управління, а також з економічної, організаційної, технічної та технологічної точок зору. Встановлено корисність формування інформаційного забезпечення в управлінні підприємствами та організаціями.

Ключові слова: інформація, інформаційне забезпечення, управління, інформаційний менеджмент, сутність інформаційного забезпечення

Zakharchenko V.I., Shvahirev M.D. Information Support and its Role in Enterprise Management. Review article.

The article considers and analyzes modern scientific approaches to the definition of the concept of information provision in management. The essential characteristics of information provision are formulated. A list of requirements for information provision is compiled, which is determined by the main objectives of information provision, in particular, provision of up-to-date information, prompt provision of information and creation of conditions for preventing unauthorized access. The author proposes to consider information support as a special type of professional activity, as a resource support system, as a component of management systems and processes, and also from the economic, organizational, technical and technological points of view. The usefulness of information provision in the management of enterprises and organizations is determined.

*Keywords*: information, information provision, management, information management, essence of information provision

eneral statement of the problem and its connection with important scientific or practical tasks.

today's In economic environment, information has gained enormous importance and is directly related to the prospects for further economic growth. At the same time, the implementation of the information function has become much more complex, reflecting more complex, global business processes that are rapidly changing as global economic relations evolve. In this context, the main role of information is to enable senior management to respond to the challenges of the global economy in a timely and adequate manner and to make quick and high-quality business decisions. The timely provision of reliable, necessary and sufficient information to experts, specialists and management increases the efficiency of the company's operations. Achieving management goals through high-quality information support and effective communication is an important factor in achieving the goal of sustainable development of society and enterprises. The information revolution, which has resulted from the rapid spread of informatization in society, is global in nature and directly affects all spheres of society, including the economy, management, science and politics. The role of information as an independent resource in business management is not only to provide information support to companies, but also to use new opportunities for business management.

In this regard, there is a growing need to study the content and tasks of information support for enterprise management and adapt its characteristics to the realities of the modern competitive environment. The importance of the problem of information support for business management is also explained by the fact that most domestic enterprises have inefficient management systems, limited financial capabilities, insufficient availability of specialists and low organizational culture.

#### Analysis of recent research and publications

A number of scientific studies have been conducted on the issue of information support. The most extensive works in this area are those of Buryk Z.M., Ogirko O.I., Kharchenko V.V., Onishchuk V.R., Cherep A.V., Panchenko O.M., Kuzmina O.E., Nesterenko S.O., Martynova L.V., Pravdiuk O.L., Prutska T.Y. and other scholars. The authors pay attention to theoretical and practical aspects of the formation of the information environment and mechanisms for interpreting information that help managers obtain the necessary data. Noting the importance of the study, it should be noted that published works cover only a certain range of issues of information support in business management [3, 5].

### Unsolved aspects of the problem

Despite the great interest of specialists in information support of enterprises and its improvement, many scientific and practical problems remain unresolved. Further research is needed to understand the nature of information provision and to define approaches to understanding the nature of information provision and classification characteristics of enterprise information resources. This will make it possible to define more clearly and adequately the methods and forms of information use, to organize and manage information flows for their effective use.

The aim of the article is to identify the essence and features of information support for enterprise management in the current state of economic development; to determine the approaches to understanding the essence of information support for enterprise management; to outline the external and internal information resources of enterprises and their use in the development of enterprises based on the use of modern digital technologies; the aim is to identify the potential for their use.

## The main part

In developed countries that are transitioning from an industrial society to an information society, the rapid development of information technologies is manifested mainly in the form of strengthening information support for the economy and management, as well as the constant diversification of the information sector. This phenomenon is reflected in certain socio-economic indicators, such as an increase in the number of people employed in the information sector and changes in professional and skilled employment in the national economy.

Management processes in the current environment have become significantly more complicated due to the need to address a number of socio-economic problems caused by economic and political factors, as well as the ongoing financial crisis in the country. Today, the viability of enterprises and their success in the competitive struggle is no longer a function of production, but of management and depends on the efficiency of management and organization of production [1]. To ensure the reliability and efficiency of enterprises, new approaches to management, more advanced forms and methods are needed. Today, information is an important element of the organization of the production process, the basis for managing the company's internal business processes, responding quickly and adequately to changes in the external business environment and reducing the level of risk in management decision-making. The level of information support for management is one of the factors that determine the efficiency of management decision-making.

Information resources play a dual role in management [5]:

- information serves as a basis for analyzing economic activity and drawing up operational, current and strategic plans;
- the flow of information resources is constantly increasing with the development of enterprises, which complicates the management of information resources and reduces the efficiency of production management.

Therefore, it is necessary to create an effective information system. An information system is a set of interconnected elements for obtaining, accumulating, processing, processing, storing and transmitting information, which allows timely management of relevant and reliable data required in specific areas of the enterprise's activities.

The efficiency of information resources use at an enterprise is determined by the information systems built and the information technologies used.

The effectiveness of management technologies largely depends on the quality of information support, i.e. how quickly and accurately the information required for making management decisions can be obtained.

The quality and efficiency of information support significantly affect the effectiveness of any management technology. In a general sense, "information support is a system of indicators and means of describing them (classifiers and codes, economic documents, properly organized information base)" [2].

From the point of view of the systemic approach, "information support is a dynamic system of data and methods of their processing, which makes it possible to investigate the actual state of the management object, identify the factors that determine it, and determine the possibilities of implementing the necessary management actions". In scientific and economic research, there are different approaches to defining the essence of information support. This includes information services for management, measures to create an information environment for management, and a set of actions that ensure the receipt of information necessary for management in a certain place and with a certain frequency.

According to S.P. Krytskyi, the concept of "information support" is associated with "processes of specialized activities, such as information activities". In other words, it is not just a component of the management process, but a separate branch of professional activity.

S.S. Parakhuta defines "information support" as "the process of collecting, processing, analyzing and

storing information and its distribution among the management of the organization; what allows selecting the most useful information for management; what consists of methods, technical means and techniques that facilitate management processes; search for reliable information; management efficiency and information tools used to improve the efficiency of the organization, which are used to make informed decisions, as well as methods that provide information materials for management".

Scientist O. Konev defines information support as "a system of information support for entrepreneurial activity, a set of interconnected information systems that mediate inter-subjective relations regarding the organization and implementation of entrepreneurial activity".

B.O. Panshyshyn describes information support as "a process that allows to improve business management processes, evaluate information systems, track performance indicators, ensure the reliability of information and reduce the impact of risks".

O. Maslak and I. Kolobkova define information support as "a tool aimed at coordinating the processes of obtaining information resources, analyzing and processing information and communicating information to the management of the enterprise in order to determine the information that affects the functioning of the enterprise".

In general, information can be defined as data about the state of a system or environment that is perceived by a person or a special device. Information required for the optimal functioning of a management system is called management information. The need for management information is a form of attitude to specific information that is defined as necessary for solving problems. The main objective factor that influences the formation of managers' information needs is the type of management activity, the specificity of the function performed, associated with different levels of management activity in the economic system.

A group of scientists [5] believes that under conditions of uncertainty, the effective functioning of an enterprise depends on its ability to develop and implement non-standard and creative management decisions based on the information received. It should be noted that the issue of data quantity and quality of information and its correlation with usefulness and relevance is a fundamental factor. The relationship between the completeness of management systems and information systems is studied in [3], where the author notes that only with a high-quality, functioning enterprise management system, it is possible to achieve the expected economic results and sufficient competitiveness, both in the domestic and foreign markets. The formation of such a management system is impossible without reliable, timely and relevant information.

Therefore, scientific sources [4, 5] distinguish the following approaches to defining the essence of "information support".

Thus, most scientists are inclined to believe that information support should be interpreted as a set of means, methods, information resources and flows. In his scientific work [4], the author argues that information support consists of a number of indicators. The author believes that these systems can be classified according to certain criteria:

- information flow a variant of document management;
- information coding and classification systems
- unified document systems;
- information arrays (files) are stored to some extent on machine media.

According to a recent study conducted by a number of scholars, the majority (53.3%) of managers of the surveyed national companies are of the opinion that improving information support is a prerequisite for making effective management decisions, and 49% of respondents stated that the main cause of conflicts in the workplace is the lack of effective communication 49% of respondents stated that the main cause of conflicts in the workplace is the lack of effective communication.

The general essence of scientific research is to determine the nature of information support. The main features of this concept are as follows:

- information support is a set of resources, tools, methods and techniques for effective process management;
- information support is a tool that allows generating critical data and helps managers not to clutter themselves with unnecessary information;
- information support is a management technique that displays information about the state of the managed object and supports management decision-making;
- information support is the process of ensuring the search, analysis, storage and dissemination of information among interested managers;
- information support is a necessary component of the management system that provides complete and reliable information for effective business.

Thus, scientific research has made it possible to formulate a general description of information provision as a means of helping managers effectively manage processes by providing the information necessary for decision-making.

Information management plays an important role in any organization or business. It provides the information needed for decision-making, coordination and planning.

The role of information provision is to provide the necessary data, information and knowledge to support management and decision-making processes at all levels.

For example, business management requires access to a range of data on financial performance, productivity, costs, and other factors that affect the company's operations. Information support ensures the collection, analysis, and presentation of such data, enabling informed decisions on planning and development of the company.

In addition, information support helps to [3]:

1. Ensure the efficiency and effectiveness of business processes. Information support is a key element in ensuring the efficiency and effectiveness of business processes. Information support enables companies to collect, analyze and use data to support management and decision-making processes.

For example, manufacturing management systems based on information support enable businesses to improve production management and ensure product quality. Similarly, with the help of procurement management systems based on information support, businesses can reduce the cost of purchasing materials and components while ensuring the high quality of the materials they buy.

Information management can help companies improve their marketing and sales strategies, for example, through customer relationship management (CRM) systems that support the collection and analysis of customer data, which can improve customer service and customer satisfaction.

2. Development of new products and services. Information technology can help companies develop new products and services by collecting and analyzing data on customer needs and preferences, market and competitor analysis, and other factors that may affect product development.

For example, customer data collection systems allow companies to gather information about what customers want from products, what they are not satisfied with in competing products, and what needs are not being met by products on the market. Based on this data, companies can develop new products that meet customer needs and are competitive in the market.

In addition, information support can help identify market trends and new opportunities that may affect the development of new products. For example, by analyzing data on social media and consumer behavior, companies can identify new trends and needs in the market that can form the basis for new product development.

3. Improving customer and supplier relationships Information management can help companies improve their customer and supplier relationships. By providing access to the right information and data, you can reduce response times to customer and partner requests, improve service quality, and speed up decision-making and problem solving.

Information management facilitates effective interaction with suppliers by providing access to information about inventory, delivery times, payment terms, and other details of cooperation. This allows companies to respond more quickly to market changes and customer requirements, reduce order processing time, and deliver goods and services in a timely manner.

4. Reduced production and labor costs. Information support plays a key role in ensuring the competitiveness and success of enterprises. With the help of information technology and data collection, processing and analysis systems, businesses can increase efficiency, reduce costs, improve products, increase customer satisfaction and competitiveness. Information technology can help companies reduce management and operating costs. For example, business process automation and other solutions can help reduce labor costs, reduce errors, and increase efficiency.

Informatization as an important factor of innovative reproduction of the enterprise potential is both the basis and the main factor of formation and development of the enterprise information potential (the most important component of the technological, qualification and management base of a modern enterprise). Effective development based on the rational use and innovative reproduction of the enterprise's potential is impossible without adequate information support and information potential (a set of organizational, technical and information capabilities that ensure the preparation and adoption of management decisions).

The set of internal and external information necessary for management is an enterprise information resource, which is considered as an organized set of documented data, knowledge, information and information intended to meet the information needs of users and available for decision-making.

In other words, information support plays an important role and is a key element of the success and competitiveness of companies, as it enables them to increase efficiency, improve the quality of products and services, reduce costs and speed up the decisionmaking process.

It can be argued that modern enterprises are interested in producing information characterized by high quality standards. This will ensure a high level of trust in the enterprise on the part of consumers, suppliers and other business participants, which will have a positive impact on the further development of the company's activities. We argue that management should work with timely, truthful and reliable information about all components of the company's business activities in the process of managing, making and demonstrating business decisions. It should be noted that the quality of information affects the efficiency of the management process, because the higher the standards of information quality, the better management can make optimal business decisions.

Thus, information support is the accumulation and grouping of data that has a positive impact on the activities of a particular company. The purpose of information support of any enterprise is to obtain processed and aggregated information based on the entire set of collected source data, which can then be used to make optimal management decisions. To achieve this goal, it is necessary to solve a number of specific tasks, such as collecting primary information, storing it, distributing it to specific performers and departments, preparing it for processing, structuring it, transferring the processed information to the management body, and analyzing it [4, 5].

In general, information support is the organization of the technical process of information processing in order to provide management with the necessary information array of data from the incoming information flow to make effective management decisions [6]. Its role is to obtain information about the state and activities of the enterprise, as well as about the external environment of its functioning and to adjust the management system on this basis to achieve the set goals.

The management of a modern enterprise requires both general information support and information support for individual functions, centers of responsibility and individual structural elements of the enterprise's potential (technologies and skills, innovations, investments, labor force and other elements). This implies the creation of appropriate specialized information systems, the content of which is determined by the needs and decisions of the management team. This requires a large amount of information. First of all, the reporting and planning documents of the enterprise (annual, quarterly and monthly reports, accounting reports and balance sheets, statistical reports, forecasts and strategies for the development and reproduction of the enterprise's potential, etc.), economic accounting data (operational, statistical, accounting and management), analysis of the production and economic activities of the enterprise, information sequences based on the financial statements of the enterprise. Information on state regulation of the economy and mechanisms that regulate the activities of enterprises and market conditions is also needed. To effectively manage the potential of an enterprise and its structural elements, a specialized information system should include information on internal economic regulation, i.e., a system of scientifically based technical and economic standards and regulations governing their use: labor costs, labor items (raw materials, fuel, energy costs), labor tools (the need and use of equipment, its repair, tools, development and use of production facilities), schedules, financial and other information.

For information systems to function, organizational and technical support is required. Organizational support includes a set of documents describing the functional technology of the information system and how users select and apply technical methods to achieve specific results during the operation of the information system, and technical support includes all technical means used during the operation of the system.

Information systems created at enterprises operate on the basis of a set of interrelated information technologies, i.e. a set of methods and procedures that implement the functions of collecting, transmitting, processing, storing and transmitting information in organizational and administrative systems using a selected set of technical means.

Information technology is considered as a purposeful set of information processes using computer tools that provide fast data processing, prompt information retrieval, data distribution and access to information sources regardless of their location [3].

The efficiency of the use of information resources at an enterprise is determined by the level of mechanization, automation and intellectualization of existing information technologies. Modern highperformance information technologies are formed on the basis of modern computers and communications. As noted in many publications, its use entails fundamental changes in management processes, their content, staffing, documentation, accounting and information transfer, creating the basis for innovative economic development and increasing its competitiveness, ensuring the integration of the economic information market into the global market of production resources [6]. This affects the ability of domestic enterprises to enter new economic markets, access to new technologies, financial, material, technological and intellectual resources, as well as the level of competitiveness of the national economy as a whole.

To summarize, it should be noted that the modern development of digital technologies has an objective impact on the business world, which makes the problem of building information support for business management relevant. Namely: diversification of activities, increase in the number of key partners, interaction with various participants in business processes, increase in the resource base, optimization of the cost structure, harmonization of income streams, optimization of sales channels and communication chains, expansion of sources and volume of offers, increase in customer segments, increase in customer loyalty and other changes.

# Conclusions

Thus, information support for enterprise management should be reliable, timely and accurate in order to make effective business decisions regarding the further development of the enterprise.

This paper defines the essence and features of information support for enterprise management in the current state of economic development, clarifies the impact of modern information technologies on the situation of enterprise management, classifies information resources of enterprises, shows the tasks and approaches to defining the essence of the concept of "information support for enterprises".

Information systems created at enterprises using the latest advanced information and communication technologies make fundamental changes to management processes, personnel and the nature of activities, and significantly expand the range of opportunities for making optimal management decisions.

Information technologies contribute to ensuring national interests, enhancing the management potential and competitiveness of the economy, and innovative development.

In the context of unstable economic development, financial crisis, political instability and lack of necessary investments, the insufficient level of informatization and development of modern information and communication technologies in Ukraine hinders the ability of domestic enterprises to integrate their production resources into the global market, to gain access to new technologies, investments, material, technical and intellectual resources. Building a modern information infrastructure is a priority task for the development of the business sector. Prospects for further research are related to the need to develop practical recommendations for information support of domestic enterprises, which will be the subject of our further scientific research.

#### Abstract

The article considers and analyzes modern scientific approaches to the definition of the concept of information provision in management. The essential characteristics of information provision are formulated. Achieving management goals through high-quality information support and effective communication is an important factor in achieving the goal of sustainable development of society and enterprises. In this regard, there is a growing need to study the content and tasks of information support for enterprise management and adapt its characteristics to the realities of the modern competitive environment.

The effectiveness of management technologies largely depends on the quality of information support, i.e. how quickly and accurately the information required for making management decisions can be obtained. The quality and efficiency of information support significantly affect the effectiveness of any management technology. In a general sense, "information support is a system of indicators and means of describing them (classifiers and codes, economic documents, properly organized information base)".

The purpose of information support of any enterprise is to obtain processed and aggregated information based on the entire set of collected source data, which can then be used to make optimal management decisions. To achieve this goal, it is necessary to solve a number of specific tasks, such as collecting primary information, storing it, distributing it to specific performers and departments, preparing it for processing, structuring it, transferring the processed information to the management body, and analyzing it.

To summarize, it should be noted that the modern development of digital technologies has an objective impact on the business world, which makes the problem of building information support for business management relevant. Namely: diversification of activities, increase in the number of key partners, interaction with various participants in business processes, increase in the resource base, optimization of the cost structure, harmonization of income streams, optimization of sales channels and communication chains, expansion of sources and volume of offers, increase in customer segments, increase in customer loyalty and other changes.

In the context of unstable economic development, financial crisis, political instability and lack of necessary investments, the insufficient level of informatization and development of modern information and communication technologies in Ukraine hinders the ability of domestic enterprises to integrate their production resources into the global market, to gain access to new technologies, investments, material, technical and intellectual resources. Prospects for further research are related to the need to develop practical recommendations for information support of domestic enterprises, which will be the subject of our further scientific research.

## Список літератури:

- 1. Бурик З.М., Огірко О.І. Інформаційні технології забезпечення сталого розвитку в контексті формування нової науково-технічної парадигми. Міжнародний науковий журнал «Інтернаука». 2017. № 1 (2). С. 24-28. [Електронний ресурс]. Режим доступу: http://nbuv.gov.ua/UJRN/mnj\_ 2017\_1%282%29\_8.
- 2. Литвинська С.В., Юрченко О.А. Поняття «інформаційне забезпечення управління»: теоретичний аспект. Інформаційна освіта та професійно-комунікативні технології XXI століття: збірник матеріалів XIII Міжнар. наук.-практ. конф. Одеса. 2020. С. 48-52.
- 3. Череп А.В., Панченко О.М., Птіцина Л.А. Інформаційне забезпечення в системі управління промисловим підприємством: монографія. Запоріжжя: Запорізький національний університет, 2014. 266 с.
- Черноіванова Г.С. Інформаційне забезпечення в системі управління інноваційною складовою підприємств. Науковий вісник Міжнародного гуманітарного університету. Серія: Економіка і менеджмент. 2018. Вип. 31. – С. 58-61.
- 5. Правдюк А. Л., Прутська Т. Ю., Правдюк М. В. Інформаційне забезпечення управління підприємницькою діяльністю на засадах інституціоналізму: монографія. Київ: «Центр учбової літератури». 2019. – 360 с.
- 6. Цибульська Е.І. Управління потенціалом підприємства: навч. посібник / Е.І. Цибульська. Харків: В-во НУА, 2011. 384 с.

#### **References:**

- 1. Buryk, Z.M., & Ohirko, O.I. (2017). Information technologies for sustainable development in the context of the formation of a new scientific and technical paradigm. International scientific journal "Internauka", 1 (2), 24-28. Retrieved from: http://nbuv.gov.ua/UJRN/mnj\_2017\_1%282%29\_8 [in Ukrainian].
- 2. Lytvynska, S.V., & Yurchenko, O.A. (2020). The concept of "information support of management": theoretical aspect. Information education and professional communication technologies of the 21st century: collection of materials of the 13th International Scientific and Practical Conference (pp. 48-52). Odesa [in Ukrainian].
- 3. Cherep, A.V., Panchenko, O.M., & Ptitsyna, L.A. (2014). Information support in the industrial enterprise management system. Zaporizhzhia: Zaporizhzhia National University [in Ukrainian].
- 4. Chernoivanova, H.S. (2018). Information support in the management system of the innovative component of enterprises. Scientific Bulletin of the International Humanitarian University. Series: Ekonomika i menedzhment, 31, 58-61 [in Ukrainian].
- 5. Pravdiuk, A.L., Prutska, T.Yu., & Pravdiuk, M.V. (2019). Information support for business management on the basis of institutionalism. Kyiv: "Tsentr uchbovoi literatury" [in Ukrainian].
- 6. Tsybulska, E.I. (2011). Enterprise potential management: Tutorial. Kharkiv: V-vo NUA [in Ukrainian].

#### Посилання на статтю:

Zakharchenko V.I. Information Support and its Role in Enterprise Management / V.I. Zakharchenko, M.D. Shvahirev // Економіка: реалії часу. Науковий журнал. – 2024. – № 1 (71). – С. 80-86. – Режим доступу: https://economics.net.ua/files/archive/2024/No1/80.pdf. DOI: 10.15276/ETR.01.2024.10. DOI: 10.5281/zenodo.10951553.

#### Reference a Journal Article:

Zakharchenko V.I. Information Support and its Role in Enterprise Management / V.I. Zakharchenko, M.D. Shvahirev // Economics: time realities. Scientific journal. – 2024. –  $\mathbb{N}$  1 (71). – P. 80-86. – Retrieved from: https://economics.net.ua/files/archive/2024/No1/80.pdf. DOI: 10.15276/ETR.01.2024.10. DOI: 10.5281/zenodo.10951553.



This is an open access journal and all published articles are licensed under aCreative Commons "Attribution" 4.0.