

threats and instability. The article also focuses on open market operations and refinancing mechanisms as tools to support bank liquidity. Refinancing allows banks to lend more aggressively to businesses and households, stimulating economic growth. The use of these instruments allows the NBU to effectively control the money supply and regulate inflationary pressures, which contribute to the stability of the banking system and the overall development of the country's economy.

Thus, the study of this article is aimed at a comprehensive understanding of the role of financial instruments of the NBU in ensuring macroeconomic stability in Ukraine, improving the efficiency of its use and identifying the conditions under which they are most effective.

Key words: monetary policy, National Bank of Ukraine, interest rates, open market operations, inflation, risks, digitalization, market transformation, monetary instruments.

UDC: 3365:007.005.1

DOI: 10.32782/2415-8240-2024-104-2-352-357

FEATURES AND DIRECTIONS OF IMPLEMENTATION OF INFORMATION TECHNOLOGIES IN MODERN CONDITIONS

Y. V. ULYANYCH, *PhD in Economics*

N. V. BONDARENKO, *PhD in Economics*

K. F. ULYANYCH, *PhD in Economics*

M. O. DYACHENKO, *PhD student of the third (educational and scientific) level of higher education (Doctor of Philosophy)*

Uman National University of Horticulture

В статті розглянуто питання підвищення якості діяльності підприємств за рахунок використання інформаційних технологій. Досліджено переваги та недоліки використання сучасних інформаційних технологій підприємствами. Описано Enterprise Resource Planning System – систему планування ресурсів підприємства. Представлено підхід Product Lifecycle Management – управління даними про продукт упродовж його життєвого циклу. Проаналізовано алгоритм вирішення проблеми вибору інформаційних технологій управління на підприємствах.

Ключові слова: інформаційні технології, підприємство, управління, ресурси, критерій, розвиток.

State of the problem. The effectiveness of financial and economic activities of any enterprise largely depends on the quality of information technology, which is now one of the most important prerequisites for successful operations. The use of modern information systems and technologies in the field of enterprise management makes it possible to provide the company with the necessary economic information more quickly, to rationalize the mechanisms of its processing and systematization.

The goal of any information technology is to obtain the necessary information of the required quality on a given medium. Information processes achieve several goals

at once: relevance of decisions; timeliness of actions; breadth of tactical decisions; control at all stages of production. In today's business environment, the role of information processes in enterprise management is invaluable, as it is important not only to analyze potential risks of the external environment in a timely manner, but also to ensure timely responses to such situations.

Analysis of recent research and publications. The concept of “information technology” has many meanings: on the one hand, it is understood as a set of information processes, and on the other hand, it is considered as a new way of processing information.

For example, I. Zakharova considers information technology as a specific way of working with information: it is a set of knowledge about the ways and means of working with information resources, and the way and means of collecting, processing and transmitting information to acquire new information about the object under study. This definition is also confirmed by scientist V. Traynev, who defines information technology as a set of methods and software and hardware tools that are integrated into a technological chain that ensures the collection, processing, storage and display of information in order to reduce the complexity of its use, as well as to increase its reliability and efficiency.

Research methodology. General theoretical methods were used in the study. The system method was used to study the theoretical aspects of information technology. The analysis method was used to study the most popular information technologies. Using the abstract and logical method, the conclusions and proposals for the introduction of information technologies in the current conditions of enterprises are substantiated and presented. The research is aimed at an in-depth study of the theoretical foundations of the use of information technologies in the financial and economic activities of enterprises in modern conditions.

Research results. The issue of improving the quality of enterprise management cannot be considered without the quality use of information technology. Currently, the Ukrainian market of information products offers a wide range of information technologies that improve the performance of automated business processes in an enterprise. But the main problem is that most of these products are unlicensed and purchased unofficially. Of the total number of programs used in Ukraine, about 30 % are illegal. At the same time, software developers report a piracy rate of almost 70 %. The legalization procedure is quite costly, which is why business leaders often implement illegal information technologies. For example: if a program is purchased for the first time, they pay for the entire package of information support, and then every six months or a year they need to buy a “key” that would extend the licensed operation of the information product.

By using illegal information systems, entrepreneurs risk, first of all, the loss of confidential information. After all, the technologies used control all processes at the enterprise: from finding resources and partners to sales and service. Therefore, the information systems and technologies that accompany these processes must be reliable and modern, with an update system and always uninterrupted [1, p. 285–286].

A striking example is the Enterprise Resource Planning System (ERP), an enterprise resource planning system. It is a corporate information system designed to automate the management process. At the heart of ERP systems are financial management, production management, inventory formation and distribution, sales and marketing management, supply, project management, service management, and control over product quality assurance procedures, i.e., the efficiency of managing all processes at the enterprise is ensured.

Despite all the benefits that an integrated information system provides, there are a number of factors that influence management's decision to implement such systems. All ERP-class systems on the market are quite expensive. Not only the cost of acquiring the system, but also the cost of the implementation project and the so-called cost of ownership (support cost) should be assessed. These costs account for a significant share of the total cost of an ERP system implementation project.

Implementation of such systems usually takes a long time, from six months to a year (this is the minimum required time). An ERP-class system implementation project entails reorganizing the company's business processes. As a result, a serious approach to describing existing business processes and finding ways to optimize them is required. The main problems that affect the speed of completion of an integrated corporate information system implementation project and its success include: informalization of business processes, rapid change of processes during the project, high staff turnover, and resistance to organizational changes. Despite all these problems, integrated information systems are quite popular among entrepreneurs because they pay off, i.e., they bring results. They also improve the image of the enterprise, and thus encourage customer confidence in the activities of their organization [2].

The process of implementing an ERP system consists of several stages: analysis of all areas of the enterprise under study, identification of problems, needs and opportunities, modeling of business processes, setting a task, forming a system, entering data, preparation for operation and training of users, launch and test operation (1–3 months) in real working conditions. In the further activities of the enterprise, the continuous development of the system is ensured, which consists in improving the existing ERP system, i.e., expanding its functionality through the implementation of new modules [3].

For the further development of the system, we propose the Product Lifecycle Management (PLM) approach, which is the management of product data throughout its life cycle. This approach creates a complete set of solutions with detailed information about the product in the process of its development, manufacturing, followed by its implementation and operation. The PLM management system consists of the following modules:

- Life Cycle Data Management;
- Life Cycle Collaboration;
- quality management (Quality Management);
- customer relationship management (CRM - Customer Relationship Management);

– Program and Project Management [4, p. 19–25].

The PLM system is applied to the ERP system as a product. That is, it is possible to manage information technology throughout its entire life cycle. This will provide the user with complete information about the IT product and facilitate the process of implementing this product in the enterprise.

In practical terms, the implementation of PLM technologies involves the organization of a single information space (integrated information environment) that combines automated systems designed to effectively solve engineering problems, as well as to plan and manage production and enterprise resources.

The main motivations for implementing information technology are the desire to optimize accounting and control at the enterprise, reduce costs, optimize management in the territorial distribution of the company, ensure transparency for investors, and increase market share. Fig. 1 shows an algorithm for solving the problem of choosing information technologies at enterprises. According to this scheme, in order to solve the problem of choosing information management technologies, criteria should be developed that will allow, taking into account the specifics of the enterprise's activities, to correlate the requirements of the enterprise to information technologies with these options. In accordance with the criteria, these variants of information management technologies are analyzed. Then, according to the degree of satisfaction with the criteria, a specific information technology is selected.

The algorithm for implementing IT management of an enterprise is accompanied by a set of methods for selecting information systems. Information technologies at enterprises should be used to effectively organize information flows and expand the possibilities of applying economic and mathematical methods. Thus, the efficiency of information system implementation is assessed on the basis of financial methods. These methods make it possible to present the results of evaluations of criteria for selecting IT in financial terms, which materially substantiates the process of implementing an information system at an enterprise; - heuristic methods.

There are two ways to purchase an information system. The first method is to purchase an IT product directly from the manufacturer or its authorized dealer in the form of a “box” with disks, drivers, instructions, etc. The second is that the management enters into a lease agreement with the IT product manufacturer. The lessor grants the right to use the information system to the lessee, which the latter downloads from the lessor's (manufacturer's) server (cloud), fig. 1. This method is quite relevant in small and medium-sized enterprises. This is due to the fact that the costs are much lower and the implementation process takes less time than the usual purchase of an information system.

Conclusion. Thus, informatization of enterprise management processes is a mandatory phenomenon. Time does not stand still, technologies are improving every day, and consumer needs are becoming more and more demanding. In order for an enterprise to remain profitable and competitive, managers need to implement new technologies and modernize existing information systems.

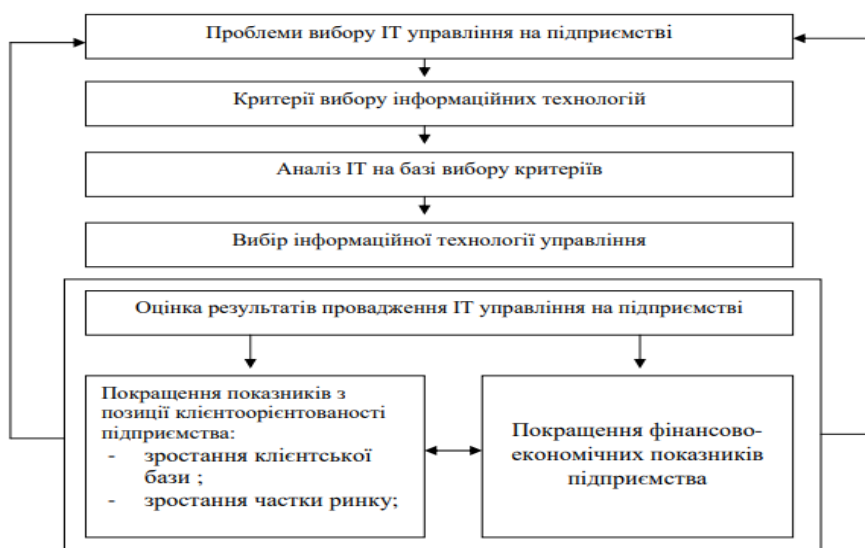


Fig. 1. Algorithm for solving the problem of choosing information management technologies at enterprises [5, pp. 6–7].

By using modern technologies, companies are able to match production with demand in real time, identify new sales and distribution channels, optimize organizational structure, determine the structure of production in accordance with the law, improve the quality of service and thus ensure efficient operations.

Література:

1. Зануда А. Бізнес під час війни: яку підтримку запропонував уряд та як виживає бізнес. BBC. 2022. Режим доступу: <https://www.bbc.com/ukrainian/features-60757453>. (дата звернення: 02.04.2024р.).
2. Ключко Т. Фінансова безпека як умова фінансової стійкості підприємства. *Економіка та суспільство*. 2021. № 23.
3. Ковальчук Н. Оцінка фінансового потенціалу підприємства. *Економіка та суспільство*. 2021. № 34. С. 24-32.
4. Кононенко Г. Особливості фінансової звітності підприємств під час воєнного стану в Україні. 2022. Режим доступу: https://er.knutd.edu.ua/bitstream/123456789/20237/1/PIONBUG_2022_P100-.pdf. (дата звернення: 10.05.2024р.).
5. Купріна Н. М. Особливості фінансового аналізу найбільш важливих груп активів в системі управління діяльністю підприємства. *Економіка харчової промисловості*. 2022. Т. 14, Вип. 2. С. 58–67.
6. Kutsyk P., Lupak R., Kutsyk V., Protsykevych A. State Policy of the Investment Processes Development on the Market of IT Services: Analytical and Strategic Aspects of Implementation in Ukraine. *Economic Annals-XXI*. 2020. № 182 (3–4). P. 64–76.
7. Software Development Companies in Ukraine: Exploring the Trends and Opportunities Within the Largest European IT Market. URL: <https://www.daxx.com/article/software-development-company-ukraine>. (дата звернення: 01.03.2024).

References:

1. Business during the war: what support did the government offer and how does business survive? BBC. 2022. URL: <https://www.bbc.com/ukrainian/features-60757453>. (date of application: 02.04.2024).

2. Klochko, T. (2021). Financial security as a condition for financial stability of the enterprise. *Economy and society*, no. 23, pp. 27–32. [in Ukrainian].
3. Kovalchuk, N. (2021). Assessment of the financial potential of the enterprise. *Economy and society*, issue 34, pp. 24–32. [in Ukrainian].
4. Kononenko, H. (2022). Features of financial reporting of enterprises during martial law in Ukraine. URL: https://er.knutd.edu.ua/bitstream/123456789/20237/1/PIONBUG_2022_P100-.pdf. (date of application: 10.05.2024). [in Ukrainian].
5. Kuprina, N. M. (2022). Features of financial analysis of the most important groups of assets in the system of enterprise management. *Economics of the food industry*, vol. 14, issue 2. pp. 58–67. [in Ukrainian].
6. Kutsyk, P., Lupak, R., Kutsyk, V., Protsykevych, A. (2020). State Policy of the Investment Processes Development on the Market of IT Services: Analytical and Strategic Aspects of Implementation in Ukraine. *Economic Annals-XXI.*, vol. 182 (3–4), pp. 64–76. [in Ukrainian].
7. Software Development Companies in Ukraine: Exploring the Trends and Opportunities Within the Largest European IT Market. URL : <https://www.daxx.com/article/software-development-company-ukraine>. (date of application: 01.03.2024).

Annotation

Ulyanych Y. V., Bondarenko N. V., Ulyanych K. F., Dyachenko M. O.
Features and directions of implementation Of information technologies in modern conditions

The article deals with the issue of improving the quality of enterprises' activities through the use of information technologies. Today, the Ukrainian market of information products offers a wide range of information technologies that improve the performance of automated business processes at an enterprise. But the main problem is that most of these products are unlicensed and purchased unofficially. Using illegal information systems, entrepreneurs risk, first of all, the loss of confidential information.

The advantages and disadvantages of using modern information technologies by enterprises are investigated. It is established that information technologies that accompany production processes must be reliable and modern, with an update system and necessarily uninterrupted capabilities. In addition, the article describes the Enterprise Resource Planning System - an enterprise resource planning system. It is a corporate information system designed to automate the management process. ERP is based on systems that provide financial management, production management, support the processes of formation and distribution of stocks, sales and marketing management, supply, project management, service management and control procedures for ensuring product quality, i.e., the efficiency of managing all processes that take place in the enterprise is ensured.

The author also presents the Product Lifecycle Management approach – managing product data throughout its life cycle and analyzes the algorithm for solving the problem of choosing information management technologies at enterprises.

Key words: *information technology, enterprise, management, resources, criterion, development.*