ASSESSMENT OF THE LEVEL OF ECONOMIC SECURITY OF INDUSTRIAL ENTERPRISES: APPROACHES, METHODS, TOOLS

The article is devoted to the analysis of existing methodological approaches to assessing the level of economic security of industrial enterprises. The advantages and disadvantages of the available tools for diagnosing the state of economic security of economic structures of the industrial sphere are specified. Problems of analysis of the level of economic security of industrial enterprises are revealed. The indicators of assessing the level of economic security are studied, assumptions are made about the possibilities of their improvement and their list expansion. An attempt is made to determine the characteristics of assessing the level of economic security of industrial enterprises, taking into account the specifics of their financial and economic activities.

Keywords: economic security, industrial enterprise, level of economic security, assessment, diagnostics, analysis, methods, indicators.

Introduction. Assessing the level of economic security of economic entities is not only one of the stages of its management, but also a complex multi-stage process, the effectiveness and reliability of the result of which depends on the approaches, mechanisms and procedures chosen by the analyst. While scientists are engaged in heated discussions on how to diagnose the economic security of enterprises, how many and which indicators should be used, how to gather information for analysis and interpret the results in the form of specific management decisions, company management says there is no universal method of assessing the level of economic security, suitable for use at the application level of the business structures economic security system. A large number of recommendations that translate the diagnosis of the level of economic security in the field of risk management, in the layer of crisis management, only confuse those who in practice are trying to get a reliable assessment of the level of economic security of the own company.

Thus, there is a need to simplify the approaches, methods, tools for assessing the level of economic security of economic entities, which can be done effectively only after the specification of the shortcomings in the traditional mechanisms of analysis and monitoring. A separate methodological challenge is the need to take into account the specifics of the type of economic activity of the object, the assessment of the security level of which is planned. After all, for different forms and types of economic structures, indicators of the state of economic security must be slightly different, otherwise the reliability of the obtained result will decrease.

Literature review. Problematic aspects and existing approaches to ensuring economic security are the basis of research by many modern scientists [1-4]. Assessing the level of economic security or diagnosing its condition – is an important component of the mechanism for managing the economic security of enterprises in various fields, including industrial economic structures. Awareness of this fact gave rise to a large number of scientific publications. Thus, Dovbnya S. B., Rudenko O. V. offer a conceptual approach to comprehensive diagnostics of economic security of industrial enterprises of Ukraine [5], Kartecheva O. S. analyzes approaches and methods for assessing the economic security of industrial enterprises [6], Voloshchuk L. O. describes own version of the classification of approaches and methods of forming analytical tools for assessing the economic security of industrial enterprises [7], Melikhova T. O. considers it rational to determine the state of economic security of industrial enterprises on the basis of analysis their financial condition, the probability of bankruptcy, the net economic effect of attracting investment [8], Kyslova L. A. explores the basics of diagnosis and monitoring of economic security in general [9], and Pysarenko B. A., Protsenko N. B. take care of issues diagnostics of economic security of functioning of industrial enterprises [10].
A number of publications are devoted to certain components of the process of assessing the level of economic security of economic entities, the tools of such assessment. For example, Lashchenko V. A. offers diagnostics of probability of bankruptcy for the express analysis of economic security of the enterprise [11], Storozhuk N. V. considers investment controlling as a means of diagnostics of a condition of economic security of the enterprise [12], Mohylina L. A. generalizes methodical aspects of an estimation of level of economic instability as a factor of negative impact on the financial security of industrial enterprises [13]. A separate category is formed by research on the problems of assessing the level of economic security of industrial enterprises of certain activities.

Thus, Filyppova S. V., Nizyayeva S. A. determine the features of diagnosing the level of economic security of wineries [14], Karayim M.M. studies the specifics of assessing the level of economic safety of machine-building enterprises [15], Matskeha D.S. studies the functional components of economic security and indicators of their assessment for light industry enterprises [16], Pikh M.Z. studies a systematic analysis of the state of economic security of food industry enterprises [17]. All these publications laid the foundations for a mechanism for assessing the level of economic security of industrial enterprises. However, until a universal, unified, approved at the state level and tested in practice approach to diagnosing the state of economic security of industrial structures is absent, the topic chosen for research will not lose its relevance.

The purpose of the article. The aim of the study is to analyze the existing methodological approaches to assessing the level of economic security of industrial enterprises. To successfully achieve this goal it is necessary to perform a number of tasks: to specify the advantages and disadvantages of the available tools for diagnosing the state of economic security of economic structures of the industrial sphere; to identify problems of analysis of the level of economic security of industrial enterprises; to make assumptions about the possibilities of improving and expanding the list of indicators for assessing the level of economic security of industrial enterprises; to determine the characteristics of assessing the level of economic security of industrial enterprises, taking into account the specifics of their financial and economic activities.

Results and discussion. A large number of decisions made by stakeholders on the vectors of cooperation with a company are based on information about the results of its financial and economic activities, which can be concluded about the effectiveness of its work at the moment and its level of economic security as an indicator of probability of continued operation and remain in the market in the future. Thus, the assessment of the level of economic security can be conducted as a comprehensive, periodic act, aimed to meet the needs of internal users – owners, top management, company staff, and a process based only on public data and information – for external stakeholders – creditors, investors, contractors, state regulatory bodies and business supervisors. Regardless of the purpose of the assessment and the end user of information about such an assessment, the selection of tools and methods for diagnosing the level of economic security is of a great importance for the reliability of the assessment result. And since there is no single recommended universal method for assessing the level of economic security of enterprises, the choice of analytical approach to the implementation of this process is entrusted to management, which in turn seeks the answers and tips in the field of research.

Voloshchuk L.O. notes that the level of economic security of the enterprise – ”is the degree of achievement of safe conditions for the operation of the enterprise. Regardless of a particular approach and methodology, the assessment of economic security of the enterprise involves two key blocks: 1) determining the value of the indicator (or indicators) that characterizes the economic security of the enterprise; and 2) determining the level of economic security of the enterprise” [7, p.224]. The level of economic security can also be understood as a measure of protection of economic interests of the enterprise and its owners, as well as corporate resources, from external and internal threats impact. As for the process of assessing the level of economic security, there are several stages: choosing a system of indicators or one of the available diagnostic methods, collecting the necessary information for analysis, calculating indicators and forming an expert opinion on the values obtained, establishing the level of economic security of the business entity.

As noted by Kartcheva O. S. "all available approaches to the development of technology for assessing economic security can be divided into three groups: 1) those whose supporters use a combination of well-known, proven methods; 2) those that form the unique method of assessing economic security with miscalculations of its functional components; 3) those that propose to determine
a comprehensive criterion for the levels of key performance indicators and their ranks" [6, p.265]. In addition, security researchers divide all approaches into "1) single-stage – provide an assessment of the economic security of the enterprise and determine its level by a certain integrated indicator or a limited set of indicators; 2) two-stage – provide for the assessment of economic security of the enterprise first on certain components, followed by integration of the obtained estimates in the integrated indicator of the level of economic security of the enterprise" [7, p.225]. We support the second approach, because it is difficult to imagine a reliable assessment of such a complex characteristic of the economic condition of the enterprise as its economic security, without taking into account the indicators of the state of each of its functional components. But in the end, to meet the information needs of management and business owners, it is necessary to determine a generalized single indicator of the level of economic security, which can be an indicator of financial and economic decisions on the vectors of current and future activities of the enterprise.

The main disadvantage of existing methods of assessing the level of economic security is their expert nature, so their use is associated with the risk of incomplete consideration of the impact of environmental factors on the economic security of the enterprise. At the same time, the attempt to cover as many factors as possible leads to the pettiness of individual, or excessive "load" of the evaluation matrix, which will prevent adequate perception of information, to correctly determine the main reasonable decisions [6, p.266].

The widespread use of the expert method is explained by the fact that the indicators proposed by scientists to assess the level of economic security and diagnose the state of its individual functional subsystems can not be calculated mathematically, or they do not have recognized normative, oriented values, which necessitates their interpretation at expert level. The problem with this approach is to determine the list of experts, especially for those enterprises where a small number of staff work and there is no separate unit to organize the work to ensure economic security. In addition, in the foundation of the existing classifications of methods for assessing the level of economic security there is no single approach to determining the criteria, which complicates the justification for choosing a particular approach to assessing the economic security of the enterprise [7, p.230].

The use of quantitative and qualitative indicators for the assessing the level of economic security in one or another of their ratios is the most popular method of diagnosis, and this approach is often called an indicator approach. Pysarenko B. A., Protsenko N. B. note that "assessment of the level of economic security on the basis of the indicator approach involves the definition with high accuracy of the base of comparison – indicators. It is the level of accuracy of indicators in this case is the problem, which is that currently there is no methodological basis for determining indicators that take into account the peculiarities of the enterprise, due to its industry affiliation, ownership, capital structure, organizational, technical and financial economic level. In addition, it is necessary to constantly adjust the system of indicators that are indicators of economic security of the enterprise" [10, p.302].

The analysis of the professional literature does not yet allow to establish what specific and unique indicators of economic security are offered by scientists to assess its level in the practice of industrial enterprises. At the same time, specific orientation is called the undisputed advantage of this approach. The convenience of its use is also due to the ability to add their own assessment indicators, which the top management of the entity considers indicative for the diagnosis of its economic condition and the level of protection from external and internal hazards and threats. That is, the number of indicators can be changed, but it should be borne in mind that in this case it is necessary to adjust their share in the final indicator of the level of economic security. However, given the specifics of the functioning of each individual enterprise into account, to conduct one such methodological procedure, in our opinion, is better than to obtain inaccurate, biased results from each periodic assessment. In most cases, to carry out a comprehensive diagnosis of economic security, it is proposed to use quantitative and qualitative indicators; their combination allows to obtain a complete real picture of the level of security and the presence of signs of negative impact on it [15, p.50]. Quantitative indicators should be calculated using mathematical tools and computer technology, qualitative indicators should be evaluated by comparison and expert method.

Karayim M. identifies the following set of difficulties for the active application of existing methods of monitoring the level of economic security: the complexity of mathematical formalization of the process, problems taking into account industry specifics, excessive cumbersomeness and complexity,
problems with choosing objective indicators of security, difficulties in choosing criteria to assess each functional component, differences in the structure of the security system of the enterprise [15, p.50]. We agree with a colleague, and believe that some of these problems can be solved by using modern information technology (for example, the use of computer technology can greatly simplify mathematical calculations, as well as systematize, group indicators, which minimizes the complexity of the calculation process). Ideally, researchers should offer a software product for practitioners – as a tool for assessing the level of economic security, which will be integrated into the information system of the management system of the business entity. At the application level, one need a ready-made functional tool for analyzing the level of economic security, rather than a difficult to understand methodological approach.

Some researchers believe that the construction of an integrated indicator of economic security of the enterprise at the present stage of development of science is still impossible. This is due to the lack of today normatively and methodologically established list of indicators that directly affect the level of economic security of the enterprise, and their critical values [6, p. 266]. Indeed, standards and benchmarks have only indicators that are borrowed to diagnose the state of economic security in terms of financial analysis, financial monitoring, assessment of the probability of bankruptcy, and so on. For indicators of the level of personnel, information, legal, market and a number of other functional components of the economic security system standards are set by situational expert method, which causes the problem of unsuitability for use in other enterprises in addition to diagnosing the state of economic security for which it was developed. However, without an integrated indicator of the level of economic security, the level of information value of its diagnosis will decrease, as it will be impossible to compare different economic structures on this parameter, for example, to make investment decisions; the option of forming a rating of enterprises based on the level of economic security within one or more industries will be unavailable, etc.

In general, the theory of economic security has recently known such approaches to assessing the level of economic security of economic entities as resource-functional approach (assessment of the level of economic security of the enterprise is based on the assessment of corporate resources by special criteria), financial approach (according to it, economic security is profit in absolute (volume of profit) and relative (quality of profit, profitability) expression), indicator approach (assessment of economic security is established by comparing the actual performance of the enterprise with set orienteers [6, c.267]. According to Voloshchuk L. alternative approaches include program-target, economic-mathematical, risky, profitable-investment approaches [7, p.226].

In general, in the source [7] we find a mention of as many as 28 (excluding alternative names) approaches to assessing the level of economic security of industrial enterprises: (single-stage (integrated, rapid assessment), two-stage (decomposition, detailed assessment), threshold (indicator, static), dynamic, functional, resource, resource-functional (investment), strategic, systemic, financial, economic, complex, alternative, factorial, list, normative, comparative (benchmarking), target on-target, strategic), statistical, economic-mathematical, descriptive, quantitative, graphical (semigraphical), two-level, three-level, four-level, five-level, seven-level). However, distinguishing these approaches, researchers do not give clear recommendations, which of them are the most suitable for use by domestic enterprises in the conditions of financial and economic activity that have developed for them today in Ukraine.

Pysarenko B., Protsenko N. note that the economic security of the enterprise is a function of technological, resource, financial, market, social and environmental security. Each of the types of security has its own assessment parameters [10, p.302]. This position is shared by Filyppova S., Nizyaeva S., proposing to consider: assessment of the level of the financial component, assessment of the level of intellectual and personnel component, assessment of the level of investment and technological component, assessment of the level of material and technical component, assessment of the corporate component and assessment level of the managerial component of economic security of the enterprise [14, p.18].

Matsekha D. believes that the economic security of the enterprise as a whole is formed by financial, managerial, informational, personnel, social, technical and technological, innovative, political and legal, environmental, anti-crisis, market-interface and power components [16, p.133]. A large number of functional components of the economic security system requires a large number of indicators to assess their condition. Therefore for diagnostic procedures it is necessary to allocate some subsystems
significant for a condition of economic security of the enterprise, to form a set of quantitative and qualitative indicators for their estimation, to establish specifications and to define levels of economic security for transformation of quantitative value of the final indicator into qualitative estimation.

Karayim M. believes that the optimal method of monitoring economic security should provide that "for each functional component, only the most important indicators are selected, and their number is minimal; for each indicator the specific weight in structure of a certain functional component is defined taking into account its importance for the characteristic of level and dynamics of safety and specificity of economic activity of the enterprises; the defined limit values of each indicator provide a clear identification of the level of security, which allows the identification of signs of a particular threat not only in relation to the functional area, but also a particular sector of observation" [15, p.54]. It is quite convenient to use score values to evaluate quality indicators. In general, scoring techniques are quite convenient for use by analysts of business structures, as well as external experts who may be involved in the evaluation procedure by investors, shareholders or management under outsourcing agreements. In the process of analyzing practices, methods, tools for assessing the level of economic security of enterprises, we noted that even if the author declares in the name or within the identification of the object of study industrial enterprises, in fact, the publication still does not clearly reflect the specifics of determining the typical methods of evaluation, etc.

Domestic industrial enterprises face new challenges that they need to overcome in order to maintain their market position, given the growing competition from European companies. For example, the Sustainable Development Goals state that the target for the share of sold innovative products in industrial output should be 5% in 2020, while according to the State Statistics Service of Ukraine in 2015 this figure was 1.5%, in 2017 – 0.7% and in 2018 – 0.8% [18]. Positive dynamics is demonstrated by the rate of return on fixed assets (with a target for 2020 – 0.13, its value over the past few years was: in 2015 – 0.1194, in 2016 – 0.1199, in 2017 – 0.1195, in 2018 – 0.1204 – but note that we have general statistics of enterprises, not only for industrial economic entities) [18]. The dynamics of the number of industrial enterprises in Ukraine from 2016 to 2018 was negative (Fig. 1), which indicates the cessation of economic structures in this segment of the national economy, which encourages efforts to strengthen economic security of industrial enterprises, as well as the need to obtain timely and objective assessment of its level to identify the threat of bankruptcy and liquidation of the enterprise in the nearest future.

![Fig.1. Dynamics of the number of industrial enterprises in Ukraine](source: compiled by the author according to [18])

The level of economic security of industrial enterprises should be dependent on their fixed assets, level of innovation, wear and tear of equipment, obsolescence not only of machinery and production technologies, but also the skills and competencies of staff working at the enterprise. Assessment of intellectual and personnel security is a very important stage in the analysis of human resources in the
system of economic security of industrial enterprises. Peculiarities of conducting their economic activity require from employees a certain level of qualification, education, experience, time management, discipline, ability to follow the norms and rules of safety. Communication skills, ability to work in a team, information and financial literacy can be considered secondary of importance for the staff of such enterprises.

Important for the state of economic security of industrial enterprises, in contrast to, for example, financial institutions or trading companies, is technical and technological security, which depends on the quality, efficiency and safety of production processes, the ability to continuously produce products of such quality that can satisfy consumer needs better than competitors in a particular market segment. At the same time, such functional components as interface and corporate security can be considered not so important for industrial enterprises. Thus, to reflect the specifics of assessing the level of economic security of industrial enterprises in comparison with other economic entities can be, first of all, by establishing the weights of each functional component of a comprehensive system of economic security in the final assessment of its condition.

Therefore, the characteristic features of assessing the level of economic security of industrial enterprises should be recognized:
- dominance of technical-technological, material and intellectual-personnel components in the system of assessing the level of economic security of an industrial enterprise; accordingly, for these functional subsystems, more indicators should be developed for analysis, both quantitative and qualitative, and their share in the final indicator of the level of economic security should be greater than those of other functional subsystems;
- assessment of the level of economic security should take place taking into account the production cycle of industrial enterprises, as well as begin no earlier than the end of the financial year;
- if the production indicators of the enterprise are not taken into account when assessing the level of material component of economic security, an additional functional subsystem – production security – as part of a comprehensive system of economic security of the enterprise to ensure a reliable assessment of its condition;
- to assess the level of economic security of industrial enterprises should take into account the indicators of wear and tear of equipment, its obsolescence, the availability of own rather than leased premises, the number of equipment downtime for one reason or another, the presence or absence of stocks, the number of staff changes, presence or absence of state orders, budget financing, belonging to the critical infrastructure of the state, etc.

Conclusions. The study of the theoretical foundations of assessing the level of economic security of industrial enterprises, namely the approaches, methods, tools of this process, allowed us to draw the following conclusions.

1. There are a large number of approaches to assessing the level of economic security of business structures, however, none of them has a pronounced specificity that would explain the feasibility of its use for industrial enterprises. Statistics show that the industry is undergoing qualitative and quantitative transformations, the process of adaptation to the requirements of sustainable development. Under such conditions, the assessment of the level of economic security is one of the incentives for timely and rational management decisions by the management of economic structures. Therefore, its objectivity and reliability are very important, and their guarantee should be the basis of analytical procedures to specify the level of economic security.

2. Analysis of the tools recommended for assessing the level of economic security of business structures allows us to conclude that a two-stage assessment is needed. At the first stage quantitative and qualitative indicators of a condition of various functional subsystems of system of economic security are defined, at the second – the final, general indicator of a condition of economic security on which value the conclusion concerning a level of economic security of the enterprise is formed. Determination of indicator values is carried out mathematically, with the involvement of experts, by comparison with analogues. Scoring techniques are easy to use.

3. Industrial enterprises have specific characteristics of economic activity in comparison with other economic entities, and this fact should be reflected in the method of assessing the level of their
economic security. Analysts need to revise the weights of the various functional components of the economic security system of industrial business structures in order to give priority to indicators specific to these economic structures in the final indicator. Also, to assess the level of economic security of industrial enterprises, an important role is played by the expert assessment of specialists who are familiar with a particular type of industrial production.

Prospects for further research — are to form the theoretical foundations of the author's methodology for assessing the level of economic security of industrial enterprises in terms of their operation in the realities of VUCA world.

References (in language original)

1. Зачосова Н.В. Механізм створення фонду гарантії інвестицій як суб'єкта захисту економічної безпеки компаній з управління активами та торговців цінними паперами в Україні. Економічний часопис-XXI. 2010. № 5-6. С. 18-23.
2. Зачосова Н., Нераєменко О., Шевченко А. Ризки та можливості ефекту фінансовий вплив на уточнення системи економічної безпеки на промислових підприємствах. Економічні перспективи підприємництва в Україні. 2017. №1. С.210-212.
5. Волощук Л. О. Класифікація підходів та методів формування аналітичних інструментів оцінювання економічної безпеки промислової підприємства. Економіка: реалії часу. 2014. № 5. С. 224-231.
10. Сторожук Н. В. Інвестиційний контроль як засіб діагностики стану економічної безпеки будівельного підприємства. Формування ринкових відносин в Україні. 2012. № 10. С. 143-146.
15. Піх М. З. Системний аналіз стану економічної безпеки підприємств харчової промисловості. Продовольчі ресурси. Серія : Економічні науки. 2014. № 3. С. 138-144.
16. Державна служба статистики України URL: http://www.ukrstat.gov.ua (дата звернення: 03.05.2020).
References


ОЦІНЮВАННЯ РІВНЯ ЕКОНОМІЧНОЇ БЕЗПЕКИ ПРОМИСЛОВИХ ПІДПРИЄМСТВ: ПІДХОДИ, МЕТОДИКИ, ІНСТРУМЕНТАРІЙ

Проблема. Оцінювання рівня економічної безпеки суб'єктів господарювання – це не лише один із етапів управління її станом, але і складний багатоетапний процес, ефективність і достовірність результату якого залежать від обраного аналітичного підходу, методології і процедур. Поки у науковій площині ведуться діалоги щодо того, як саме потрібно проводити діагностику стану економічної безпеки підприємств, скільки та яких показників необхідно використати, як зібрати відомості для аналізу та інтерпретувати отримані результати у форму конкретних управлінських рішень, керівництво компаній засвідчує відсутність універсальної, прийнятної для використання на прикладному рівні системи оцінювання економічної безпеки бізнес-структур.

Мета статті полягає в аналізі існуючих методичних підходів до оцінювання рівня економічної безпеки промислових підприємств.

Методи. У процесі дослідження використані монографічний метод і метод теоретичного аналізу. Також застосовано прийоми аналізу і синтезу. Метод узагальнення використано у процесі формування висновків за результатами проведеного дослідження.

Результати. Здійснено аналіз існуючих методичних підходів до оцінювання рівня економічної безпеки промислових підприємств. Конкретизовано переваги та недоліки наявного інструментарію діагностики стану економічної безпеки господарських структур промислової сфери. Виявлено проблеми аналізу рівня економічної безпеки промислових підприємств. Досліджено показники оцінювання рівня економічної безпеки, зроблено припущення щодо можливостей їх удосконалення та розширення їх переліку. Здійснено спробу визначити характерні риси оцінювання рівня економічної безпеки промислових підприємств з урахуванням специфіки їх фінансово-господарської діяльності.

Напукова новизна. Визначено особливості оцінювання рівня економічної безпеки промислових підприємств, серед яких домінують техніко-технологічної, матеріальної та інтелектуально-каравої складових у системі оцінювання. Відповідно, для цих функціональних підсистем має бути розроблено більшу кількість показників для аналізу, як кількісних, так і якісних, і їх питома вага у підсумковому індикаторі рівня економічної безпеки має бути більшою, ніж у показників реці функціональних підсистем. Оцінювання рівня економічної безпеки має відбуватись із урахуванням виробничого циклу промислових підприємств, а також розробляти не раніше кінця фінансового року. Якщо виробничі показники підприємства не беруться до уваги при оцінюванні рівня матеріальної складової економічної безпеки, має використовуватися додаткова функціональна підсистема – виробнича безпека – у складі комплексної системи економічної безпеки підприємства для забезпечення достатньої оцінки її стану. Для оцінювання рівня економічної безпеки промислових підприємств мають братись до уваги показники зносу обладнання, його морального старіння, наявності власних, а не орендованих приміщень, кількість простів обладнання з тих чи інших причин, наявність або відсутність запасів, кількість змін роботи персоналу, прив'язаність виробничого циклу, наявність або відсутність державних замовлень, бюджетне фінансування, належність до критичної інфраструктури держави.

Висновки. Існує велика кількість підходів до оцінювання рівня економічної безпеки підприємницьких структур, однак, щоден із них не має вираженої специфіки, що показована б доцільність його використання саме для промислових підприємств. Аналіз інструментарію, що рекомендується для оцінювання рівня економічної безпеки підприємницьких структур, дозволяє зробити висновок про необхідність двоетапного оцінювання. На першому етапі визначають кількісні й якісні індикатори стану різних функціональних підсистем системи економічної безпеки, на другому – обчислюють підсумковий, загальний індикатор стану економічної безпеки, на значення якого формується висновок щодо рівня економічної безпеки підприємства. Промислові підприємства мають специфічні характеристики економічної діяльності у порівнянні з іншими суб'єктами господарювання, і цей факт має зазначити відображатися у методиці оцінювання рівня їх економічної безпеки. Аналітиками необхідно переглянути вагові коефіцієнти різних функціональних складових системи економічної безпеки промислових бізнес-структур із тим, аб надати пріоритет специфічним для цих господарських структур індикаторам у підсумковому показнику.

Ключові слова: економічна безпека, промислове підприємство, рівень економічної безпеки, оцінювання, діагностика, аналіз, методика, показники.

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