

INFORMATION AND ANALYTICAL SUSTENTION OF THE TRANSFORMATION PROCESS OF THE MANAGEMENT SYSTEM OF DEVELOPMENT OF THE UKRAINIAN INDUSTRY STRATEGIC POTENTIAL

Annotation. In this article, there was clarified the conceptual-categorical apparatus of management theories of the formation, transformation and use of the strategic potential of industry. It is proposed to use the strategic potential grouping based on the informational and synergistic outlook. Application of informational resource as the determining factor of endogenously directed development and transformation of the real sector of the Ukrainian economy is considered. The conditions of use of information-analytical systems in the context of providing a balanced development of strategic industrial potential are detailed. The prospects of the increasing complexity of modern information systems that can automatically form intellectual reserves by classes of forecasting problem areas are determined. From the standpoint of the above material, it can be argued that the current stage of development of the national economy is characterized by the transition to the formation of an investment and innovation model of development and construction of the basis of European integration of Ukraine. Providing economic growth with investment-innovation orientation requires the transformation of the system-universal functioning potential, which envisages, first of all, the formation of the idea of the possibility of using the aggregate opportunities of the real economy to achieve the goals of balanced development; and secondly, the active use of modern management methods for balancing and determining strategic directions of development. In our opinion, the process of transformation of the strategic development management system is based on the principles of object-oriented design, such as encapsulation, imitation and polymorphism, which give the objects as components of the projected system new qualities. This will enable the development of adaptive technologies for managing the development of the strategic potential of Ukrainian industry.

Key words: transformation of management system of strategic potential development, strategic potential development, strategic potential of industry, informational potential, information technologies.

ІНФОРМАЦІЙНО-АНАЛІТИЧНЕ ЗАБЕЗПЕЧЕННЯ ПРОЦЕСУ ТРАНСФОРМАЦІЇ СИСТЕМИ УПРАВЛІННЯ РОЗВИТКОМ СТРАТЕГІЧНОГО ПОТЕНЦІАЛУ ПРОМИСЛОВОСТІ УКРАЇНИ

Анотація. У статті проведено уточнення понятійно-категоріального апарату теорій управління формуванням, трансформацією та використанням стратегічного потенціалу промисловості. Запропоновано до використання групування стратегічного потенціалу на засадах інформаційного та синергетичного світосприйняття. Розглянуто застосування інформаційного ресурсу в якості визначального чинника ендегенно спрямованого розвитку і трансформації реального сектору економіки України. Деталізовано умови використання інформаційно-аналітичних систем в контексті забезпечення збалансованості розвитку стратегічного потенціалу промисловості. Визначено перспективи поглиблення складності сучасних інформаційних систем, що здатні автоматично формувати інтелектуальні резерви за класами проблемних областей прогнозування.

Ключові слова: трансформація системи управління розвитком стратегічного потенціалу, стратегічний потенціал промисловості, інформаційний потенціал, інформаційні технології.

Introduction. The complexity of the structural construction of economic systems, the acceleration of scientific and technological changes, and the initiation of perturbations in the aftermath of the globalization processes of the world economy are the most decisive features of the modern historical stage of the national economy development. Therefore, the problem of finding an effective model of the national economy growth, based on the formation, expansion, transformation, development and use of strategic potential, remains relevant.

New aspects of the given topic study are due to the growing threats of the global financial and economic crisis, which showed inconsistency of endogenous and exogenous factors of the transformation processes realization, the sharpening of the contradictions between the global nature of modern economic processes and the existing institutional and organizational mechanisms for their regulation. It should be noted that the problems of transformation of economic systems in the conditions of globalization acquire a special scientific-theoretical and practical significance, taking into account the current realities of the development of the Ukrainian state. Gained during the years of transformation experience has convincingly demonstrated the urgent need to revise the established and determined national model of development; to identify exogenous and endogenous risks of the transformation of the Ukrainian economy and industry; to justify strategic priorities for developing an effective mechanism of management of the formation, expansion and use of the strategic potential of national industry [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14].

Analysis of recent research and publications. The issue of the transformation of the management system for the development of the strategic potential of the Ukrainian economy, and industry in particular, is constantly in

the field of researchers, and is the subject of numerous scientific discussions. A significant contribution to the theory and methodology of systemic economic transformation belongs to O.M. Alymov, A. Bersutskiy, I.A. Ignatieva, V.V. Mykytenko, O.O. Bakaev, L.I. Baszhan, L.I. Kaydan, T.G. Kravchenko, V.V. Kulik and others [1, 2, 3, 4, 9, 10, 11, 12, 13, 14]. Paying tribute to the theoretical and practical value of previous achievements, there is a need to detail the conditions of the use of information and analytical systems in the context of ensuring a balanced development of the industry's strategic potential.

Main objectives. The purpose of the article is to determine the main directions and stages of transformation of the management system for the development of strategic potential of the Ukrainian industry, and to develop practical recommendations concerning the formation of complex information and analytical sustention of this process.

Research results. It should be noted that the main obstacle on the path of general economic acceleration of the country is the existence of outdated management systems of the national economy and the inadequacy of the mechanisms used. Namely the following:

- 1) management of the economic security sustention of the country;
- 2) management of the development of the strategic potential of the industry (including management of the systematically and universally functioning potentials), including: managerial, organizational, scientific, intellectual potentials, as well as, according to the authors of the article, informational, synergetic, hierarchical and functional complexity, social-ethical potentials, etc.).

Solving these problems in the context of the expansion of the European economic area involves, first and foremost, systematic research and understanding of the term "strategic industrial potential" that can be defined as a systemic phenomenon characterizing a set of capabilities, resources and industry sources used to achieve a strategic mission to meet the diverse needs of society and ensure a high level of economic security of the country. The proposed definition of the strategic potential of industry has the following advantages: a) it is based on a system approach that allows the use of the characteristics and properties of the system; b) the general mission of the "strategic industrial potential" system is defined - meeting the diverse needs of the society and ensuring a high level of economic security of the state.

The theoretical and methodological definition of strategic potential involves, first of all, the construction of the structure of strategic potential, namely its sub-potentials. We do not consider subpotentials as formalized static phenomena, since they have their own hierarchy of substructural elements (for example, economic potential is a consequence of the interaction of its production, technical, technological, raw material, energy substructural elements).

The authors of the article support the opinion of the specialists of Alimov O. and Mykytenko V. on the identification of key components of strategic potential, and believe that it is for their use that the macroeconomic parameters of the development of national industry acquire macro-political and systemic features, although they continue to be cognitive-methodological macroeconomic phenomena. These processes, being constantly dynamic, require the application and adaptation to modern production and economic activities of research objects. In particular, the initiation of prerequisites for the use of both resource and functional, and program-targeted principles of the economics regulation. In their work [2, 6], the researchers emphasize the following: objective understanding of the problems of the transformation of the management system with the development of the strategic potential of the Ukrainian economy, and industry in particular, is impossible without the use of synergetic approaches as one of the perspective directions for the knowledge updating about the development of complex economic systems in national conditions. Thus, the process of transformation of the management system for the development of the strategic potential of industry is to change the components, parameters, proportions and connections in the system of strategic potential in the process of transition to a new qualitative state, under the influence of the external environment. The transformation process has a dynamic nature, which acts as a process and result, which leads to an analysis of the process of changing the economic system with an assessment of its quality status. This assessment of the strategic development management system is carried out, first of all, to increase the development potential and ensure the country's economic security. In our opinion, the process of transformation of the management system for the development of the strategic potential of industry and the national economy in general is based on the basic principles of object-oriented design (encapsulation, imitation and polymorphism), which provide objects, as components of the system being designed, with new qualities. Therefore, summing up the above-mentioned results, the author of the article considers it appropriate to note: the transformation of the management system for the development of the strategic potential of the industry aims, firstly, to form the idea of the possibility of using the combined capabilities of the industrial complex to achieve the goals of balanced development, and secondly, to use modern management techniques to balance and define strategic development directions. Thus, the stages of realization of the process of transformation of the management system for the development of the strategic potential of the national industry can be presented in the form of a scheme given by the author of the article in Fig. 1.

It should be noted that in order to increase the implementation` effectiveness of the management system of the development of the state economy strategic potential, and the strategic potential of industry in particular, it is suggested to develop a mechanism for determining the current level of use of this potential, which in turn requires the transformation of its structure and assessment of its components.

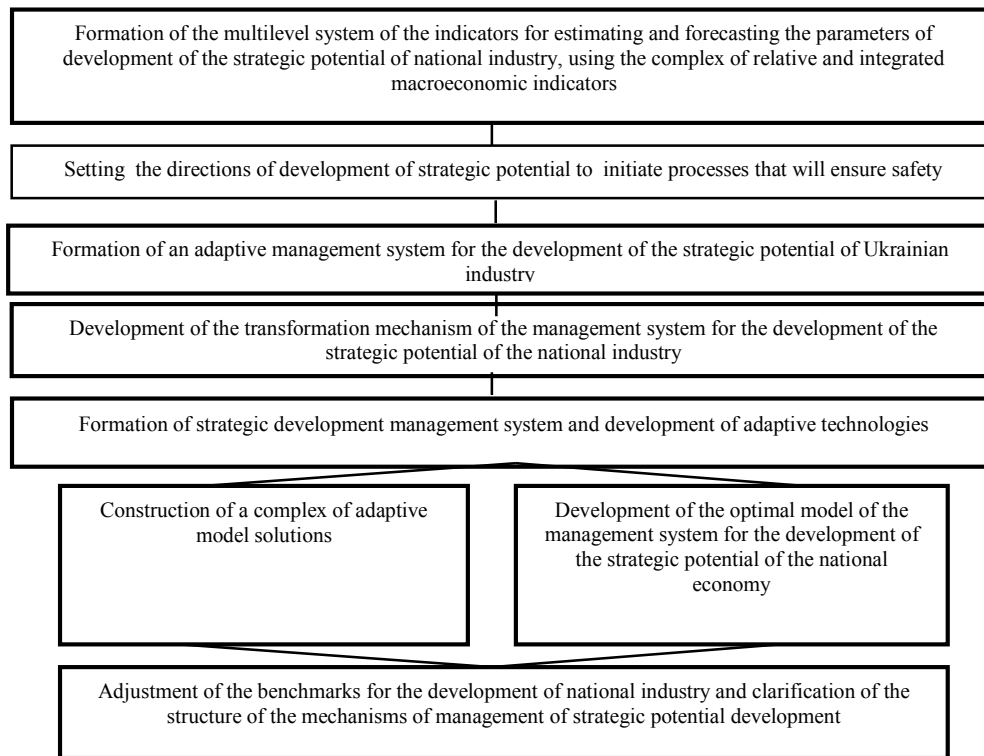


Fig. 1. Stages of the process of transformation of the national industry strategic potential

One of the central role in solving the tasks of transformation of the management system of the strategic potential of industry in Ukraine development belongs to the problem of the choice of a criteria system that adequately reflects the current state of the real sector of the economy at the given moment (Table 1).

Table 1 Essential content of particular static indicators for assessing the strategic potential of the country*

Macroeconomic Indicators	Economic Content and Characteristics
GDP per capita (converted to money PPP in US dollars) of the population	In the long term, only economic growth can provide an increase in resources - non-current and current assets, including financial resources, in the welfare of the population. The level of GRP per capita depends on economic factors - capital and labor, their productivity, driven by the level of technological development and available intellectual and human capital
Sectoral structure of the economy and structure of GDP distribution; indicators of the share of services and high-tech industries in GDP; uniformity of GDP distribution (Gini index)	The essence of economic development lays in the changes in the structure of GDP, which ensure the growth of income and increase the welfare of the population in the long-term period
Quality of life of the population (life expectancy, morbidity, level of medical care, education, environment). For the comparative analysis, the Human Development Index (HDI) is used. Components of HDI: life expectancy at birth (longevity); level of education (knowledge); living standards - GDP per capita in comparative prices (for PPPs)	A multidimensional, complex, "humanistic" indicator that takes into account the ultimate effectiveness of economic policy within the regional industrial complexes, namely: the uniform distribution of GDP and GRP and welfare
Indicators of economic efficiency (capital productivity, material intensity and energy intensity of GDP, labor productivity)	Evaluate the level of use and build-up of the strategic components of the regional industrial complexes and the industry as a whole

Notes: * Systematized and grouped by authors

It should be noted that the criterion assessment, as a sign, on the basis of which the evaluation, the comparison of alternatives, the classification of objects and phenomena is conducted, includes: 1) assessment of resource potential and opportunities for its development; 2) assessment of the level of efficiency of the use of resources, capital and labor and its compliance with the level in developed countries, as well as the level at which the threats of external and internal character are minimized; 3) assessment of the competitiveness of the economy; 4) assessment of the integrity of the territory and economic space; 5) assessment of the sovereignty of independence and the possibility of confronting external threats.

According to the scientist [5, 6], the following methods should be used to assess the level of use and development of strategic industrial potential: monitoring of the main macroeconomic indicators and their comparison with the world average; estimation of economic growth rates by means of dynamics of the main

macroeconomic indicators; methods of expert evaluation; methods for analyzing and processing scenarios; methods of optimization; theoretical game techniques; utility methods; methods of recognition images; methods of the theory of systems; methods of multidimensional statistical analysis.

The development of a complex of informational and analytical support for the management system for the development of the strategic potential of the industry should be based on the following principles: providing a one-time introduction of information at the points of its occurrence, as well as collective and multiple use of it; minimization of duplication of functional tasks of information processing by defining the subsystem, which is responsible for its implementation of providing all consumers of other subsystems; unification and standardization of tasks and subsystems of functional blocks and protocols of their information interaction in the same type of systems of one hierarchical level; organization of information provision and interaction on the basis of formation of a unified system of information and telecommunication interaction; the use of flexible instrumentation and modular structure of subsystems and system in general.

The construction of a system of informational and analytical sustention of management processes for the development of the strategic potential of the national economy involves the following stages:

1. Development of theoretical and methodological principles of information provision of the management system for the development of strategic potential of the real sector of the economy.
2. Analysis of the information and analytical sustention for the management system for the development of strategic industrial potential.
3. Development of the mechanism of management of the system of information and analytical sustention and automated processing of information management process for the development of strategic potential of the Ukrainian economy.

At the same time, the practical solution of such tasks should be ensured: a) automation of routine operations and transition to paperless information exchange; b) informational and analytical support of processes of preparation and acceptance of managerial decisions; c) the establishment of direct (horizontal) information links between the governing bodies; d) introduction of advanced technologies for the analysis and modeling of socio-economic processes; e) organization of scientific research in the economic, social and legal spheres [7].

It is problematic to estimate the significance of the contribution of the information resource to economic growth as a non-material factor, since this indicator should be calculated both through the innovative component and through the influence of the material component of the information resources and the human factor. The operation of multi-component systems can not be imagined without the use of modern information technologies, based on which economic information systems used to effectively process large amounts of data in computer systems of enterprises, and provide information support of management decisions.

The scope of the use of new information technologies and advanced communication tools is enormous [9, 10, 11, 12, 13, 14]. It includes various aspects, ranging from providing simple functions of service correspondence to system analysis and decision support:

- 1) technical support, that is, a set of means for the processing and transmission of information flows;
- 2) information support, which includes various directories, classifiers, means of formalized description of data;
- 3) mathematical support or a set of means for solving functional problems and other means of provision;
- 4) informational and methodological support, which determines terms and quality.

Consequently, the new level of complex study of the phenomenon of information potential analysis as a component of the process of transformation of the management system for the development of the strategic potential of industry in Ukraine needs to be reviewed in the context of social changes due to the disclosure of the reasons for its special significance at the present stage of socio-economic progress, with the transition to innovation development models and the need to ensure a sufficient level of economic security of the country. Hence, any forms of progress in the economic sphere can not be imagined without the use of modern technologies (based on economic information systems) as a key component of the information potential.

Conclusion. From the standpoint of the above material, it can be argued that the current stage of development of the national economy is characterized by the transition to the formation of an investment and innovation model of development and construction of the basis of European integration of Ukraine. Providing economic growth with investment-innovation orientation requires the transformation of the system-universal functioning potential, which envisages, first of all, the formation of the idea of the possibility of using the aggregate opportunities of the real economy to achieve the goals of balanced development; and secondly, the active use of modern management methods for balancing and determining strategic directions of development. In our opinion, the process of transformation of the strategic development management system is based on the principles of object-oriented design, such as encapsulation, imitation and polymorphism, which give the objects as components of the projected system new qualities. This will enable the development of adaptive technologies for managing the development of the strategic potential of Ukrainian industry. The analysis made it possible to conclude that the existing system for managing the development of the strategic potential of the national economy and industry requires the transformation, in particular, optimization of its structure and the elimination of those chains, mechanisms and regulators, which are characterized by low level of adaptation to changes in the environment, or insignificant influence on the acceleration of transformation processes in the system of the national economy, based on the implementation of targeted programs. Realization of these measures is undoubtedly connected with intensification of processes of building up and use of information potential.

The scientific novelty of scientific work is the recommendations for the development of the classification of certain modifications of constitutively key factors of influence on the rates of economic growth in the conditions of information economy formation, such as: **first**, the indicator of scientific and technological progress is functionally dependent on: a) the direction and pace of innovation development of the country; b) institutional architectonics; c) features of the functioning of the national economic system; d) the general level of accumulated knowledge, which are strategic resources of economic growth; **secondly**, informational and intellectual capital is also an endo- and exogenous variable, which depends on: a) the level of informatization of the individual production and the country as a whole; b) the development of traditional capital and knowledge of the enterprise or industry, allowing for new technological developments, maintaining the pace of production and rapidly introducing innovations; **thirdly**, the labor factor loses its quantitative significance for endogenously directed growth and is mainly determined by the quality of labor and human capital; **and lastly**, the traditional indicators of economic growth are changing: instead of GDP per capita, the amount of scientific developments and the number of patents, the creation of conditions for the introduction of advanced technologies and products is foreground. The development of further research in this direction should be aimed at studying the cognitive processes of production, expansion and intensification of intellectual activity, since the global economic system entered the era of global informatization.

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