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SUBSTANTIATION OF THE PROGRAM DEVELOPMENT OF INTEGRATED STRUCTURES OF COMBINED ENTERPRISES

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INTRODUCTION. The insufficient development of conceptual principles regarding integrated structures of combined enterprises, their development on the basis of a program-target approach, necessitates the search for theoretical foundations based on the principles of convergence inherent in self-organizing structures that reproduce the effects of interaction and interconnections of business entities.

THE HYPOTHESIS OF THE SCIENTIFIC RESEARCH is to substantiate recommendations and proposals for the development of integrated structures on the basis of a program-target approach as one of the priorities in the conditions of martial law and post-war restoration of the state economy.

The purpose of the study is to substantiate the features of the program development of integrated structures in modern conditions.

THE METHODOLOGY OF SCIENTIFIC RESEARCH is general scientific research methods: system-structural method, methods of induction, deduction and logical generalizations – in establishing the factors of formation and identifying classification features of integrated structures, in clarifying the features and principles of development and substantiation of program development of integrated structures of joint enterprises; methods of abstract-logical and system analysis – in identifying laws and patterns of formation of integrated structures.

CONCLUSIONS AND PROSPECTS FOR FURTHER RESEARCH. The program-target aspect of the development of integrated structures of joint enterprises requires the formation of new approaches to effective management, which are based on the paradigm of interorganizational management. The task of such management is to achieve organizational efficiency and effectiveness by coordinating and program development of available resources within the integrated structures of joint enterprises.

KEYWORDS: efficiency; economic and organizational support; integrated structures; innovations; management; program development; joint enterprises; synergy.

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ОБҐРУНТУВАННЯ ПРОГРАМНОГО РОЗВИТКУ ІНТЕГРОВАНИХ СТРУКТУР ОБ'ЄДНАНИХ ПІДПРИЄМСТВ

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ВСТУП. Недостатня розвиненість концептуальних засад щодо інтегрованих структур об'єднаних підприємств, їх розвитку на засадах програмно-цільового підходу, зумовлює пошук теоретичних основ, заснованих на принципах конвергентності, властивих самоорганізуючим структурам, що відтворюють ефекти взаємодії та взаємозв'язків суб'єктів господарювання.

ГІПОТЕЗА НАУКОВОГО ДОСЛІДЖЕННЯ полягає у обґрунтуванні рекомендацій та пропозицій щодо розвитку інтегрованих структур на основі програмно-цільового підходу як одного із пріоритетних в умовах воєнного стану та післявоєнного відновлення економіки держави.

МЕТОЮ ДОСЛІДЖЕННЯ є обґрунтування особливостей програмного розвитку інтегрованих структур в сучасних умовах.

МЕТОДОЛОГІЄЮ НАУКОВОГО ДОСЛІДЖЕННЯ є загальнонаукові методи дослідження: системно-структурний метод, методи індукції, дедукції та логічних узагальнень – у встановленні факторів формування та виявленні класифікаційних ознак інтегрованих структур, у з'ясуванні особливостей і принципів розробки та обґрунтування програмного розвитку інтегрованих структур об'єднаних підприємств; методи абстрактно-логічного та системного аналізу – у виявленні законів і закономірностей формування інтегрованих структур.

ВИСНОВКИ ТА ПЕРСПЕКТИВИ ПОДАЛЬШИХ ДОСЛІДЖЕНЬ. Програмно-цільовий аспект розвитку інтегрованих структур об'єднаних підприємств потребує формування нових підходів щодо ефективного управління, які базуються на парадигмі міжорганізаційного управління. Завданням такого управління є досягнення організаційної ефективності та результативності шляхом узгодження та програмного розвитку наявних ресурсів в межах інтегрованих структур об'єднаних підприємств.

КЛЮЧОВІ СЛОВА: ефективність; економічно-організаційне забезпечення; інтегровані структури; інновації; управління; програмний розвиток; об'єднані підприємства; синергія.

Problem statement. Innovative development of integrated structures of joint ventures based on the development of targeted complex programs involves solving a list of theoretical, methodological and organizational issues. In software development, an urgent problem is the improvement of the system of planned indicators.

Analysis of recent research on the problem. The theoretical basis for studying the formation and functioning of integration structures was the work of the classics of economic science: A. Weber, K. Arrow, R. Coase, A. Marshall, S. North, S. Rosenfeld, E. Polymer, D. Sollier, J. Tyrol, O. Williamson, G. Haken, E. Chamberlin, J. Schumpeter, and others. The scientific achievements of the aforementioned specialists, as well as domestic scientists, collectively made a significant contribution to the formation of the program development of integrated structures.

The purpose of the study scientific substantiation of theoretical and methodological approaches to the program development of integrated structures of joint ventures.

Presentation of the main material. Program development is a rather complex process. At the same time, programs are subject to certain requirements, compliance with which increases the likelihood of success in their implementation.

The following are recognized as the main requirements for program development:

1) relevance of the program The program should be oriented towards solving the most pressing problems;

2) balance. The program should track the linking of all interacting resources and constraints;

3) focus. Program actions should meet the specified goals;

4) realism. Program implementation capabilities should be adequate;

5) controllability. Programs should be designed in such a way that there are no obstacles to analysis and control over the process of their implementation (Yermoshenko & Hanushchak-Iefimenko, 2010; Zhyhalkevych, 2019a).

For software development, a more developed feedback mechanism is used, which provides not only system adjustment, but also adjustment of the program itself in the interests of achieving the goal by adapting to changing external and internal factors. The main criterion when using the program-target method is the goal, not the plan. The presence of such feedback provides flexibility of management. Deviation from the state specified by the plan involves adjusting the behavior of the system, as well as changing the plan. The feedback mechanism not only provides fixation of internal and external changes of integrated structures and formation of corresponding actions and processes, but

also involves constant analysis of circumstances that contribute to the creation of changes (Zhyhalkevych, 2014; 2019a; 2019b).

Although long-term development programs open up space for adaptation when justifying the final target indicators, at the same time uncertainty factors increase. The tasks of the program development indicator system are to specify the goal, determine the final results in long-term plans. Therefore, program development helps to concentrate resource capabilities in solving the problems and tasks.

The system of program development goals is determined based on existing problems, on the one hand, and the presence of resource constraints – on the other. Thus, the program development methodology involves justifying goals based on their timeliness and the availability of resource capabilities (Ansoff, 1965; Baiura, 2009; Solntsev & Zhyhalkevych, 2020).

Under the program development of integrated structures of joint ventures, a planned complex of socio-economic, production, scientific and research, organizational activities is defined, which are oriented towards the production of innovative and technologically competitive products. The general main goal of program development consists of a list of sub-goals to meet the needs for individual types of innovative products. All sub-goals are interconnected with each other and the general goal, which is due to the need for comprehensive use of the infrastructure of the integrated structure and the interchangeability of various types of resources within it. The program development of integrated structures is considered as a sequential transformation of goals into measures and tasks. In practice, several technological options for implementing the target system are provided. Therefore, a convenient tool for presenting the program is a program tree of goals, which allows you to structure goals into measures and tasks according to their achievement. It is quite clear that the boundaries of the transition from measures to tasks and from tasks to resources are quite conditional, they are determined by the capabilities and goals set. At the same time, the possibilities of providing tasks with resources depend on their availability. According to alternative options, the program development of integrated structures should be carried out with an assessment of the available resources necessary for its implementation.

In the process of substantiating the program development of integrated structures, the method of expert assessments can be used. Within each integrated structure, it is considered necessary to create a coordination center that will coordinate the actions of their participants, as well as engage in the development and implementation of promising development projects. A group of experts will select the most appropriate option for the program development of integrated structures.

Based on the study of professional literature, a model of an abbreviated version of the program tree for the development of an integration structure is proposed, which includes several interconnected levels: subprograms, activities and tasks (Zhyhalkevych, 2014; 2019a). Activities are of an applied nature, which allows you to move from functional and subject needs to specific tasks and the necessary resources for their implementation. A feature of the program tree of goals is its practical orientation towards increasing the efficiency of integrated structures.

The first-level subprogram is focused on the formation of the component-functional structure of the integrated structure. It is specified in two subprograms:

1) restoration of production and technological connections;

2) structural and functional arrangement of participants.

Each of the blocks includes a group of related industries and institutions. Thus, the implementation of the first subprogram is possible when solving tasks related to improving the effective operation of structural units of each block of the integrated structure:

1) basic, which includes primary production;

2) related, which consists of the production of raw materials and materials, as well as energy support;

3) auxiliary – it consists of research organizations; marketing companies; consulting firms; institutions for training and retraining of personnel;

4) service – it includes trade and logistics companies; financial and investment institutions; service centers.

Program development measures for integrated structures are designed to ensure the achievement of the goals set in the tasks and include a list of specific types of production work, improving the quality of products in auxiliary industries, rational use of services of organizations, and improving information relations with service institutions (Zhyhalkevych, 2019b; Kreidych, Roshchyna & Kantsedal, 2019; Perevozova, Derhachova & Minakova, 2020).

A characteristic feature of the program tree of goals is that the subroutines of the first level can be executed only when implementing the subroutines of the second level, related to the modeling of the integrated structure. The model is used as a conditional one formed to simplify the study. On the basis of the system-structural approach, the structure of the system is organized – the organization of connections and relations between its subsystems and elements, as well as the composition of these subsystems and elements, each of which usually corresponds to a certain function (Zhyhalkevych, 2019a; Kreidych, Roshchyna & Kantsedal, 2019).

In the subprogram for modeling the integrated structure of joint ventures, five subsystems are distinguished:

1. The management and marketing subsystem, which receives information about the state of the market and other subsystems of the integrated structure, processes information, and forms tasks regarding the development directions of the components and the structure as a whole.

2. The central production subsystem, which is a set and production-economic or production-technological unity of the corresponding subsystems. This subsystem is the production core of any production.

3. The subsystem of production, corresponding to the types of production resources.

4. The subsystem of scientific and educational institutions: design and development institutes, bureaus, research institutions engaged in the study and implementation of technological and product innovations, educational institutions that train specialists of higher and secondary qualifications, technicians.

5. The subsystem of the service sector, which includes servicing enterprises, organizing sales and supply, financial services, etc.

In the following subprogram of forming program indicators, the task is to divide them into: target, development, resource, parametric, economic efficiency and competitive advantages. Each of the specified subprograms of the second level is focused on determining such parameters and their achievement. The study and identification of which requires in-depth research.

Thus, the specified subprograms reflect the main directions of improving the architecture of integrated structures based on innovative development. The simultaneous development of fundamental scientific problems and the solution of applied technical issues, including the implementation of existing developments, are provided. Therefore, such and other issues must also be resolved in the process of developing integrated structures.

The system of indicators of program development is based on the initial methodological principles:

- compliance of the system of indicators, program tasks with the general directions of development of the integrated structure, which characterizes the expediency of solving problems with the help of indicators, their economic orientation;
- orientation of the system of indicators on the maximum, effective use of all types of resources, increasing production efficiency, achieving final results with the lowest costs, which confirms the focus of the indicators on a comprehensive increase in the efficiency of social efforts, improving reproduction proportions;
- ensuring comparability of target indicators with planned ones, which allows linking target tasks and measures for participants, strengthening internal and external ties, increasing the efficiency of activities;

- taking into account the specifics of the problems being solved depending on the target orientation, which ensures the targeting and specificity of the final results, their wide application in practice;
- methodological unity of the development of planned indicators, their comparability with indicators used in statistics, which link the tasks and measures of the target program with economic system indicators (Kreidych, Roshchyna & Kantsedal, 2019; Perevozova, Derhachova & Minakova, 2020).

Building a system of indicators based on the above principles will ensure a single orientation of the participants of the integrated structure to solving the tasks set, increase their social and individual efficiency, improve production and economic relations.

The achievement of the planned final results should be ensured, first of all, by the necessary resources in the specified nomenclature and volumes. Therefore, among the indicators of resource availability of the complex, one can distinguish such as the volumes of fixed production and working capital, labor resources, capital investments. They reflect not only the initial conditions for the functioning of the integration structure, but also the features of its prospective development.

Parametric parameters of the integrated structure include market indicators and growth rates of participating enterprises. That is, a reflection of the process of activity of the integrated structure with input and output indicators. With the help of these indicators, a general assessment of the effectiveness of the functioning and development of the participants of the integrated structure is carried out, and it also becomes possible to regulate production and economic proportions in a planned manner – indicators of economic efficiency. Unlike natural target indicators, they reflect the effectiveness of the development of the structure, and the economical use of resources (Zhyhalkevych, 2014).

Conclusions and results of the study. Efficiency is the most important characteristic of the feasibility of integrating participants in joint ventures.

An effective system of economic diagnostics, built into the structure of corporate management, will contribute to the development and improvement of participants in corporate relations.

The parameters of economic efficiency of integrated structures will be indicators of the effectiveness of the joint activities of participants as a single whole, which is determined by the ratio of the sum of individual effects to the costs that led to their acquisition. They can be divided into internal and external. Internal ones relate to participants in the integrated structure. Such indicators include profitability, profitability, etc. External ones can be measured at the macro level: increasing the investment attractiveness of participants; creating new jobs; impact on the market segment (field of activity); penetration of new markets.

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