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SYSTEMITY AND COMPLEXITY OF ANALYTICAL RESEARCH ORGANIZATIONAL ARRANGEMENT IN THE SYSTEM OF ENTITIES MANAGEMENT

This article covers the concepts of systemity and complexity as tools of cognition but also from the position of the dialectical category "form – content". The concept of the systemity organizational arrangement of analytical research in the sphere of entities management in the context of institutional links formation and hierarchy of problems structuring for decision-making is developed. Also the concept of the complexity of organizational arrangement for enterprise information flows in the context of the content filling of the analytical process technology and hierarchy of analytical tasks building for the search of reserves is developed.

Keywords: economic analysis, analytical research organizational arrangement, systemity, complexity, structuring of management problems, analytical tasks building, hierarchy.

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СИСТЕМНІСТЬ ТА КОМПЛЕКСНІСТЬ ОРГАНІЗАЦІЇ АНАЛІТИЧНИХ ДОСЛІДЖЕНЬ У СИСТЕМІ УПРАВЛІННЯ СУБ'ЄКТАМИ ГОСПОДАРЮВАННЯ

У статті розглянуто поняття системності та комплексності як інструментів пізнання та з позиції діалектичної категорії «форма – зміст». Розвинуто концепцію системності організації аналітичних досліджень у сфері управління суб'єктами господарювання в контексті формування організаційних зв'язків та ієрархічності структурування проблем для прийняття рішень. Також розвинуто концепцію комплексної організації аналітичних досліджень інформаційних потоків підприємств в контексті змістовного наповнення технології аналітичного процесу та ієрархічності конструювання аналітичних завдань для пошуку резервів.

Ключові слова: економічний аналіз, організація аналітичних досліджень, системність, комплексність, структурування управлінських проблем, конструювання аналітичних завдань, ієрархічність.

Рис. 1. Літ. 21.

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СИСТЕМНОСТЬ И КОМПЛЕКСНОСТЬ ОРГАНИЗАЦИИ АНАЛИТИЧЕСКИХ ИССЛЕДОВАНИЙ В СИСТЕМЕ УПРАВЛЕНИЯ СУБЪЕКТАМИ ХОЗЯЙСТВОВАНИЯ

В статье рассмотрены понятия системности и комплексности как инструментов познания, а также с позиции диалектической категории «форма – содержание». Развита концепция системности организации аналитических исследований в сфере управления субъектами хозяйствования в контексте формирования организационных связей и иерархичности структурирования проблем для принятия решений. Также развита концепция комплексной организации аналитических исследований информационных потоков предприятий в контексте наполнения содержанием технологии аналитического процесса и иерархичности конструирования аналитических задач для поиска резервов.

Ключевые слова: экономический анализ, организация аналитических исследований, системность, комплексность, структурирование управленческих проблем, конструирование аналитических задач, иерархичность.

Introduction. Important principles of economic analysis organization at the entities are systemity and complexity. These two categories are in the same conceptual row, there is a lot in common between them, but there are also differences already laid in the very nature of these concepts. Clarifying the distinction between complexity and system of analytical research organization in the system of entities under market conditions is an important methodological problem, its solution will allow determining resource requirements for the division of analytical work, to coordinate the work of employees of different qualificational levels, to rational combination of these elements in space and time, and on the basis of these to build new analytical processes in the direction of making optimal managerial decisions for bringing conditions of enterprise functioning in line with changing market conditions and external environment, and also according to the elaborated strategy of enterprise development.

Analysis of the research and publications. Due to the rapid growth of the role of knowledge and information as a factor of modern production and the change of the conditions of modern economic subjects, there is a problem regarding gradual transformation of the principles of complexity and systemity of analytical researches in the independent concepts and their implementation. It should be noted that to the problems of the complexity in the analysis of the entities activity were devoted the works of prominent Soviet scientists, namely M. Bakanov (1981), S. Barnholts and A. Suharev (1954), M. Chumachenko (1969), I. Karakoz and V. Samborskyi (1989), I. Poklad (1969), M. Rubinov (1962), A. Sheremet (1967), S. Tatur (1962) and others.

The problem of the similarities and differences of a systemic and complex approach as scientific methods of reality cognition are presented in the works of M. Bakulina (2011), K. Bayimukhanov (2009), D. Nelipa (2010). The articles of O. Zorina (2011), E. Kuzbozhev, M. Svyetovtseva and T. Babich (2006), N. Pedchenko (2012), A. Podolska (2012), I. Simenko (2008) should be added to the latter researches and publications, where solution of system and complexity of economic analysis organizational arrangement in the system of business operation have been offered.

The object of the research. According to the results of the review of the scientific literature 4 types of relationships principles of consistency and comprehensiveness are identified, the explanation of which is provided by the majority of scientists, who research the problems of economic analysis organization at enterprises: 1) systemity = complexity; 2) systemity > complexity; 3) systemity < complexity; 4) systemity $\neq$ complexity.

Despite the diversity and depth of the researches on the integrated and systemic approach to the analytical research of enterprise economy conducted by scientists in different periods, the problem of distributing the concepts of a system and complex methods to organizational arrangement of entities analytical management in conditions of functioning in the modern information congested market environment remains insufficiently investigated.

The aim of research is to ground the hypothesis that analytical activity organizational arrangement in the sphere of entities management should have both complex and systematic nature, and analytical researches should be conducted at all levels of management hierarchy.

The methods of research. Methodological basis for the conducted research is the dialectic method of scientific cognition of reality. During the research of theoretical

aspects of systemity and complexity concepts the scientific methods of abstracting, analysis, synthesis and generalization have been used. In the process of division of general features of dialectical categories into "complexity" and "systemity" groups the method of classification has been used. Definitions of complexity and system of analytical research organizational arrangement in the system of entities management that are offered in conclusions are grounded by the deduction method.

Main results of research. For the separation of the concepts of "systemity" and "complexity" as independent applied concepts of analytical research organizational arrangement in the system of management of enterprises in market conditions it is necessary to build the conceptual framework for the categories "system" and "complex". In particular, some authors understand the system as an ordered set (combination) of the objects with such connections and relations that provide their combination of new qualities: integrity (the presence of a common goal of functioning not inherent to a separate object); autonomy (the tendency of growth of necessary elements and functions); sustainability (preservation and development of the structure, which was formed). The complex is a system with a higher level of coherence, connectivity and interdependence between elements (Savrukov, 1999).

Some authors propose to consider the structure of systemity in 3 aspects: the system theory, the system approach and the system of the method. However, the system theory (the theory of systems) given through the prism of the explanatory and systematic functions; the system approach given through the prism of orientation and ideological functions; and the system method given through the prism of informative and methodological functions. Thus, systemity is understood as an instrument of cognitive activity. With this understanding of the notion "system", the ultimate goal of any system activity is seen in the development of decisions (Surmyn, 2003).

There is also a point of view that systemity means any attempts to structure problems and decisions by vertical, and complexity means deploying them horizontally. Therefore, the systemity is more inclined to vertical subordinate relations, and complexity inclines to horizontal coordinating links (Bayimukhanov, 2009).

Among modern analytical scientists the complex economic analysis usually involved, it is generally interpreted as a systematic study of enterprise economy that provides interconnection and conditionality of specific tendencies in its activity analysis, indicators and factors of production, the complex reserves identification both for separate analytical indicators and for general effective production indicators (Sidorenko, 2004). It should be noted that a significant number of modern Ukrainian experts in the field of economic analysis supports the opinion that complexity in the analysis process is provided by the implementation system modeling positions of economic phenomena, and the aim of complex economic analysis is to identify the reserves for production efficiency increase on the basis of economic processes and phenomena interconnected investigation and determination of production factors as well as estimation of their impact degree (Economic Encyclopedia, 2000).

It is offered to research the issue of system and complex approach to organizational arrangement of any kind research from different points of view. Namely, etymologically the term "complex" comes from the Latin word "cum" (with) and "plectere" (plait, plexus), and "system" – from the Greek words "συν" (plus, together) and "τημα" (addition). Thus, from the etymological point of view it is possible to

assert that in the complex research underlies the observation of phenomena that are "twisted" with each other; and in the system research underlies the observation of the phenomena that are "added" to each other.

With reference to definition of system and complex approach to organizational arrangement of any kind research from the philosophical point of view, and more specifically from materialist dialectics position, it is necessary to be concentrated on the basic principles of dialectics. On these principles general scientific methods for information processing and decision-making are based; namely from the standpoint of understanding the fact that existence cognized: in movement; in certain connections, interrelations, interdependence and mutual conditionality; in cause-and-effect subordination; coordination and coordinating determinacy; in necessity and randomness occurrence. It should be noted that for dialectics it is significant to use matched categories, which reflect the "polar" sides of comprehensive phenomena and processes. The following categories: "movement – development", "space – time", "form – content" should be referred to the categories, reflecting the "organization", "construction" of existence. It should be noted that the dialectics characterized by the use of paired categories that reflect the "polar" side coherent phenomena and processes. By the categories that reflect the "organization", "the structure of being", should include the category of "movement – development", "space – time", "form – content".

From the philosophical position motion is any interaction, as well as change in the objects state occurring in the process of such interaction. From the point of view of the change directivity a progressive type of motion is distinguished, it is identified with the notion of "development" and is specified by the new quality of object's state. Philosophical understanding of space reflects a universal quality of material bodies to have length, to occupy a specific place and to be placed next to each other. Time reflects a universal ability of material processes to run one after the other in a certain order, to have duration, to develop by phases and stages. In dialectics the form and content reflect different but continuously linked parts of the same object or process: the content is formed, and the form is contented (Kasyan, 2008).

Given the above evidence allows distributing characteristics of cognitive activity organizational arrangement according to the essential features of dialectical links and relations (Figure 1).

Thus, from the standpoint of dialectical approach it can be asserted that the system of any research organizational arrangement indicates a form of motion, types of links, subordination form, form of subordinate concept and form of randomness in making decision. These forms are visualized in system attributes: integrity, hierarchy, structural properties. To the main feature of a system approach to research organizational arrangement should be included dynamics, which occurs in regard of objects motion and motion of phenomena in the form of progressive changes in structural interconnections of previous states, i.e. in the form of dialectical perspective.

For the complexity of any research, from the perspective of the dialectical approach, it should be regarded as a content of motion, content of interconnections, content of cause-effect subordination, content of coordination determinacy, content of information processing procedures. This pithiness occurs in the attributes of a complex approach: comprehensiveness, coordination, and synchronicity. Static

nature should be regarded as a main feature of an integrated approach to research organizational arrangement, which occurs in interpretation of the cognition mechanisms set for variety of components and their interrelations in a particular time point.

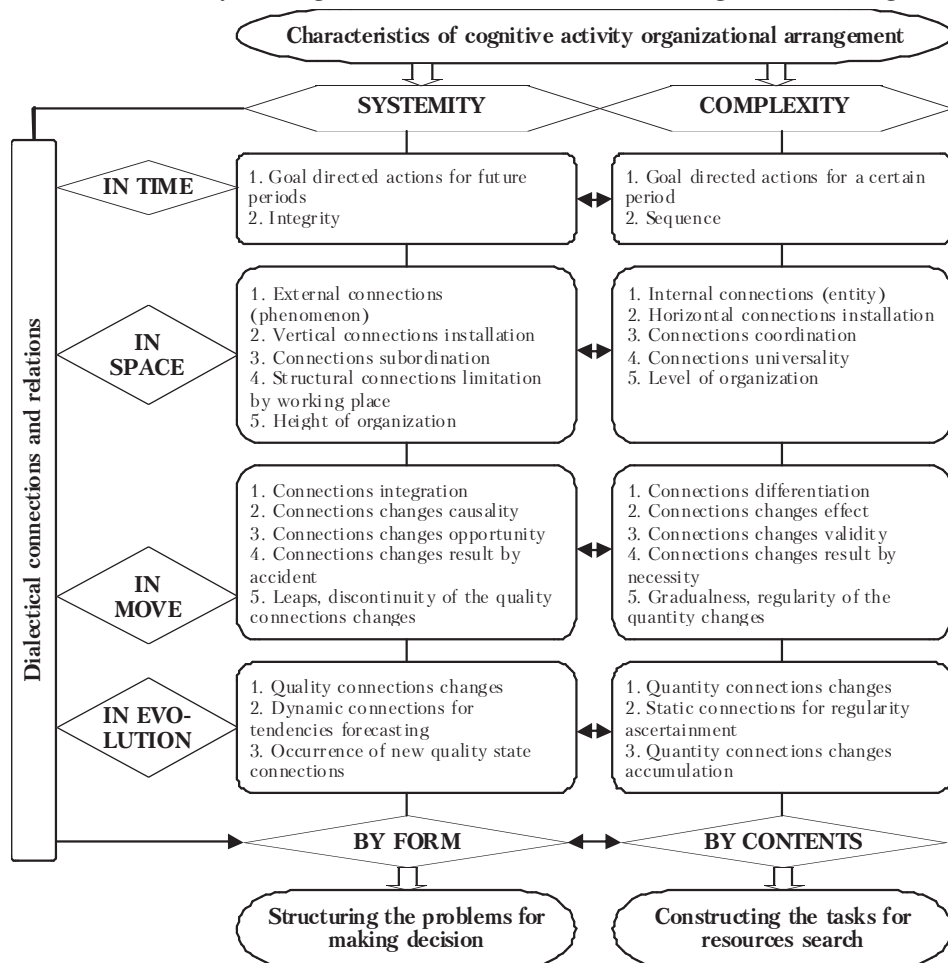


Figure 1. Properties of cognitive activity organizational arrangement by dialectical relation classification (for the self-concepts development of system and complex analytical research arrangements in entities system management), developed by the author

Consequently, the system approach to analytical activities organizational arrangement is suggested to be defined as a way of thinking, the main features of which are: 1) structuring (opportunity to sort out parts); 2) hierarchical bond; 3) directed on a goal (without any goal system does not exist). Complex approach to any activity organizational arrangement is suggested to be described as a level of reality understanding with the following significant characteristics: obligatory presence of subjective factor; combination of elements with various qualities in the course of a single subjective goal meaning to provide increased efficiency of system functioning;

resources search for the system elements interrelations quality improvement; coverage of all the factors variety that can affect the outcome of the research.

Finally it should be mentioned giving to the decision making person the analytical product that is not only an ordered informative set of problematic situation separate elements that compiled due to the complexity of analytical researches but occurs as a comprehensive whole that presents the management object in an easy to understand perspective, contains suggestions for alternative behavior options and possible consequences processed by the system of analytical research organizational arrangement. All this allows comprehending the object of management in its dynamics and development.

Conclusions. Summing up the abovementioned, the following conclusions are drawn:

1. Systemity is an organizational phenomenon of structural elements connection for a certain goal implementation. The system attribute is occurrence of problems in decision-making process. In the system of economic entity management it is a way of informational flows qualitative cognition. Therefore, a system approach to the analytical activity organization is not mainly a method for analytical problems solving but the method for setting goals by managing subsystem of an entity. Thus, the systemity of analytical researches organizational arrangement in the entities management is suggested to be understood in the context of building the analytical service system structure, i.e. building institutional links and setting goals to experts carrying out analytical tasks.

2. Complexity is an organizational process of coordinated actions consolidation for the implementation of a certain goal characterized by the consistent, complete and comprehensive search for certain regularities. In the system of economic entity management it is a way of informational flows quantitative cognition. Therefore, a complex approach to the analytical activity organization should be considered as a search method for activity efficiency increase reserves of the entity controlled subsystem with regard to the influence of the variety of factors that may affect management results. Thus, the complexity of analytical researches organization in entities management is suggested to be understood as the completed content of the analytical process technology, associated with the analytical works planning and identification of methodological tools set for solving analytical tasks.

3. In the national system for providing economic analysis complexity prevails over systemity organizational arrangement of analytical research, and, therefore, the existing forms providing analytical work at enterprises do not assist the achievement of long-term goals and do not contribute to entities' economical development. Thus, mentioning the systemity organizational arrangements of analytical research in entities management, first of all, we should pay attention to the hierarchy of analytical team organizational structure building and, correspondently, to the hierarchy of solving analytical tasks at all the levels of economic entity management.

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