CHARACTERISTICS OF INNOVATION-ORIENTED ORGANIZATION:
A BEHAVIORAL PARADIGM

The article summarizes the arguments and counterarguments in the scientific debate on the use of a behavioral approach to managing an innovation-oriented organization. The main purpose of the study is to identify typical characteristics of modern innovation organizations that emerge in the process of ontogeny of the organization, have a behavioral nature and contribute to improving the effectiveness of innovation. As a result, the characteristics of modern innovative organizations that determine the effectiveness of their activity are determined. The change of behavior of innovatively active subjects at the subject and polysubjective levels under the influence of administration, routine and violation of integrity of activity is shown. Mentioned set of features can be used as a benchmark in modeling and managing innovation activity and innovation processes in organizations.

Key words: innovation-oriented organization, collaboration, co-evolution, ontogeny, supersituational activity.

JEL classification: A12, B49.

Problem statement in general. The systematic implementation of effective innovation activity in modern conditions means, first of all, the creation of organizations that would provide opportunities for realizing the existing intellectual and creative potential, and which would ensure the high efficiency of the innovation process. This task cannot be accomplished solely through the use of methods of creative search or the use of flexible project structures, since innovation activity is multilevel and complex. There are numerous factors of technological, resource, and structural nature that determine its effectiveness. This raises the issue of defining the characteristics of modern successful innovation organizations and their further systematic use in the process of building effective innovation organizations, both existing and new. Given the dominant role of the human factor in innovation processes, there is a need to analyze the behavioral aspects of the functioning and development of innovation organizations, which would help to outline the criteria and targets for further search for the ability to manage the innovativeness and innovation potential of organizations.

Analysis of recent research and publications. Theoretical and methodological aspects of the development of innovatively active organizational forms in their modern reading are revealed in the works of such researchers as: D. Hurst [1], C. Leadbeater [2], D. Stark [3], which, in the vast majority of cases, are focused on the conscious, rational structures of the cognitive systems of the innovation activity, behavior of which is embedded in normative models “how it should be”. However, behavioral and neuroeconomic studies capture the fundamental deviations of human perceptual and mental processes from the proposed rational norms, contrasting them with positive “as it is” models. Thus, the study of human behavior in various conditions has been reflected in the writings of Nobel laureates, including: H. A. Simon [4], D. Kahneman & A. Tversky [5], R. Thaler [6]. Their findings are complemented by studies focused on the consideration of certain socio-psychological aspects of innovation. Paying attention to the scientific and practical importance of the works of the aforementioned authors, it should be noted that a complex interdisciplinary study of
the behavioral aspects of innovatively active subjects of the organization in the process of its ontogeny from adaptive to efficiency-oriented forms of functioning, requires its study with possible fixation of conditions of neutralization of cognitive distortions and behavioral dysfunctions to ensure the formation process of hierarchical organizational forms capable of effectively diffuse uncertainty and complexity of the external environment.

The purpose of the article is to identify the key features of modern innovation organizations that arise because of the ontogeny of organizational conditions from traditional reproductive, to initiating, innovation-oriented forms of organizational behavior that shape the innovation potential and ensure the effectiveness of innovative activity.

Methodology and research methods. The methods of analysis and generalization are used in the work to clarify the typical features of innovative organizations. Comparison methods are used to identify key differences. Also, systems analysis methods are used to assess the influence of factors on the effectiveness of innovative activity.

Main material. Metaphor of the stageization of organizational ontogeny. A metaphor that reflects the importance of the behavioral aspect of organizational transformations may be the evolution of primitive society, in which reduction of uncertainty and environmental risks inherent in hunting and harvesting came about through domestication of livestock and cultivation of the land. D. K. Hurst, on the example of the Bushman tribe living in South Africa and whose evolution from hunter to farmer took place during the 20th century, proved that the change in community structure, its values, behavior, were key factors in social development [1]. The study shows that the predictability of one's own household is increasing, and activation of results improvement activities takes place, and hunting skills are only activated in times of crisis and related to structural changes in the tribal organization. Wherein there is a periodic activation and change of two cultures – “hunter” (search for opportunities in the external environment) and “farmer” (maximizing the efficiency of using these opportunities and ensuring the viability of a holistic organizational structure). A functioning organization plays the role of a protective, insurance layer in case of low performance of the innovative component (in the research or practical activity the normative approach prevails). This allows us to draw an analogy with the basic stages of the ontogeny of an innovative organization, and to consider the solution of the existing contradiction between the desire to stabilize the state of the organization and the need for purposeful adaptive changes, as a problem of strategic choice and ensuring adaptive organizational behavior.

Being open systems, commercial organizations, like any other systems, characterized by a tendency to acquire a stable state of functioning. However, the transition to the latter always means a gradual decline in economic efficiency. In the traditional theory of organization there are currently no mechanisms focused on preventive adaptation. However, the construction of such mechanisms would provide an opportunity to adjust the economic activity of the organization to the changing conditions of the external environment, which in crisis periods determines the downward wave of its life cycle. As a consequence, the innovative component of organization activity eventually degrades and atrophies. This is partly due to hierarchization and administration, which reduces the organization's sensitivity to environmental changes through the blocking its cognitive potential. Most of the results of such an activity in O. Shankar's terms [7] are “innovation”, that is, imitation and recombination of known for adaptation purposes. The weak point of the innovational strategy is the imperfection of the existing mechanisms for finding and identifying precisely those standards that are subject to imitation and which will be in demand by the external environment. Therefore, recombination will predictably increase adaptability within the borders of the appropriate technological paradigm, which immanently contains a limit of possible excellence. The need to overcome technological gaps brings to life other organizational forms capable of more creative recombination of existing knowledge and its proliferation.

Assemble. The emergence of an innovatively active organization and the selection of its participants from the external environment occurs according to the results of the convergence of distinction systems (information models of the world). Of course, this helps to identify concurrent conceptualizations of images of the future and initiates the process of assembling the reflexively active subjects. At this evolutionary stage of the formation of an organization, there are no formal attributes of it yet, that are oriented to the reproduction in the space and time of certain results, such as: hierarchy, administration, technologies, traditions, etc. All this allows us to outline the intentional matrix of those social dynamics that integrates the reflexively active subjects without involving any external managerial influences. K. A. Nordström on circular interaction, states: “A person has a great opportunity for self-organization only when we receive a comprehensive assessment of his or her activity” [8, p. 120]. C. Leadbeater concretizes: “we gain really valuable recognition from objective, external sources, usually communities of people, that are equal in status to us” [2, p. 198]. At this stage, no sophisticated managerial manipulation is required: this is an excessive practice that can destroy the whole plan.

The transformation of disparate, autonomous entities into a synergistic polysubject creates conditions of collaborative activities under which all team members are interchangeable. The understanding that all
participants in the interaction are equally interested in its implementation eliminates the need for external coordination of efforts. The components of a personality that is oriented toward power domination with no purpose, are in an inactive state. The conscious and unconscious spheres produce supersituative activity, which leaves no extra cognitive energy and time to the processes of elucidating interpersonal relationships. In such circumstances, there is no need for the interception of formal and informal power in hierarchical structures, and they are a tendentious form of status dominance to a greater extent than a natural need of the individual. Being in an environment devoid of manipulative strategic forms a polysubjective unity of equals. The focus of attention shifts to a common goal, rather than establishing relationships through manipulation and artificial escalation of one's status within the group.

At this stage there is actualization of those immanently inherent characteristics of the process of co-creation, which later, influenced by conditions that routinizes activity, get lost by the organization and which are difficult to recreate if an organization goes from the laminar market flow into a turbulent, innovative flow. Summarizing the list of characteristics of an innovation-oriented organization, those that are inherent in the majority should include the following: the absence of a rigid hierarchy; multifunctional staff; open communications; mutual trust; development of individual powers based on personal interests. A more detailed listing and analysis of these characteristics is provided in Table 1 below.

**Interaction with the external environment.** Subjects of created innovative organization through their own interests and activities, similar to hunters, as if

### Table 1 – Differences between organizations focused on functioning (recreation of values) and development (creation of innovative values)

<table>
<thead>
<tr>
<th>Criteria for comparison</th>
<th>Organizations focused on development</th>
<th>Organizations focused on functioning</th>
</tr>
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<tbody>
<tr>
<td>Priority goal</td>
<td>Satisfaction of needs</td>
<td>Receiving a profit</td>
</tr>
<tr>
<td>Interaction with the external environment</td>
<td>Autopoietic (direct participant)</td>
<td>Allopoietic (external observer)</td>
</tr>
<tr>
<td>Perception of the organization</td>
<td>System-integrated (process)</td>
<td>System-differentiated (functional)</td>
</tr>
<tr>
<td>Supervisor</td>
<td>Leader</td>
<td>Administrator</td>
</tr>
<tr>
<td>Supervisor functions</td>
<td>Mediation, moderation</td>
<td>Decision making, control</td>
</tr>
<tr>
<td>Supervisor selection mechanism</td>
<td>Meritocracy</td>
<td>System loyalty</td>
</tr>
<tr>
<td>Authority</td>
<td>Authoritative</td>
<td>Authoritarian</td>
</tr>
<tr>
<td>Communications</td>
<td>Mostly horizontal</td>
<td>Mostly vertical</td>
</tr>
<tr>
<td>Basic processes</td>
<td>Self-organization and self-development</td>
<td>Order and subordination</td>
</tr>
<tr>
<td>The dominant concept</td>
<td>Convergent management</td>
<td>Rational bureaucracy</td>
</tr>
<tr>
<td>Staff perception</td>
<td>Subject (polysubject)</td>
<td>Object</td>
</tr>
<tr>
<td>Competencies</td>
<td>Trans- and interdisciplinary</td>
<td>Disciplinary</td>
</tr>
<tr>
<td>Orientation of work results</td>
<td>Costumer focused</td>
<td>Management focused</td>
</tr>
<tr>
<td>Staff activities</td>
<td>Reflexive</td>
<td>Reactive</td>
</tr>
<tr>
<td>Reaction to changes</td>
<td>Proactive, interactive</td>
<td>Reactive, inactive</td>
</tr>
<tr>
<td>Attitude to errors</td>
<td>Tolerance</td>
<td>Inadmissibility</td>
</tr>
<tr>
<td>Paradigm of innovation development</td>
<td>Nonlinear</td>
<td>Linear</td>
</tr>
<tr>
<td>Organization of the production process</td>
<td>Integration, modular assembly</td>
<td>Differentiation, division of labor</td>
</tr>
<tr>
<td>Conditions of demand</td>
<td>Uncertainty and volatility of needs.</td>
<td>Relative sustainability of needs.</td>
</tr>
<tr>
<td>Macroeconomic shifts</td>
<td>Adaptable</td>
<td>Macroeconomic stability</td>
</tr>
<tr>
<td>Measurement of perfection</td>
<td>Efficiency</td>
<td></td>
</tr>
<tr>
<td>Attractor</td>
<td>The possibility of materialization of ideas</td>
<td>Possibility of material compensation of efforts</td>
</tr>
<tr>
<td>Topography of the future</td>
<td>A shared image of the future, an unarticulated mission</td>
<td>Measurable, reproducible goal, organizational strategy</td>
</tr>
<tr>
<td>Motivation</td>
<td>Affiliation, evaluation of ideas in an environment of equals, self-actualization</td>
<td>Material compensation, career growth</td>
</tr>
<tr>
<td>Structure</td>
<td>Heterarchical</td>
<td>Hierarchical</td>
</tr>
<tr>
<td>Scheme of activity</td>
<td>Conditions – consequences</td>
<td>Purpose - means</td>
</tr>
</tbody>
</table>
they were inscribed in the outside world, are connected with them by various connections, which makes them sensitive to existing needs and changes. And when combining efforts within the creative process of ideological diversity coalition an “insight” happens, as the ability to bridge “logical gaps” [9] in conceptualizing the image of innovative value. Let us emphasize that they are not part of the external environment: as long as they are the same environment, from which the functioning organization distinguishes itself (by analogy with the farm), moving into the position of an external observer, which minimizes the quality of feedback due to isolation from the consumer constructs and their distorted interpretation.

Intense horizontal communications allow the subjects of the innovation organization to identify and express problematic issues in a working manner, without waiting for their development and complications. Acting in this way, the developing organization avoids the accumulation of unresolved issues. It excludes the possibility of situations of "alien territory" that takes place in the activities of a functioning organization. According to H. Haken, “a self-organizing society can exist steadily and develop dynamically for a long time if each member behaves as if he or she has been responsible for the whole, to the best of his or her ability” [10, p. 207]. But as soon as the concept of innovative value and technology of its production were developed, there is a need to create the appropriate structure, there is a vertical and horizontal separation of functions, a hierarchy appears, which results in the emergence of regulatory protocols and interaction procedures, which dramatically reduces the efficiency of problem-oriented communications, shifting subjects into functional "reservations" and provoking the transition to suboptimal criteria for unit performance.

Communications: cross-functionality vs functionality: If one starts from interpreting the creative process as the subject's ability within his or her own cognitive system to recombine interdisciplinary knowledge that overcomes logical gaps with their further integration into the generated image (hypothesis), then innovative organizations have all the necessary conditions for this. The co-creation environment is an open communication platform, within which synergetic consolidation of cognitive systems takes place.

As a result of this consolidation, an extended process of meanings-constructing is deployed, which adds new meanings to the functional recombination of knowledge of an individual or group with unified thinking patterns. The latter are brought into collective creativity by both new carriers of specific competences and synergetics of the mechanisms of co-evolution of cognitive systems of the polysubject. There is a condition, under which the growth of organizational knowledge can be effectively launched: the information coming into the ideological reactor, which is determined by the area of closest development of the subjects of co-creation, should be localized. Otherwise, constructs that are imported in the plane of decisions of the polysubjective environment will not be able to be embedded in the organizational knowledge structure, the information obtained will remain outside the borders of the organizational competence.

These indicated constraints determine the range of creative tasks that an innovation-oriented organization can solve without losing its identity. On the other side of the organizational continuum is a functioning organization that has an advanced information system for processing and accumulating different data, but its difference from a developing organization lies in the hierarchical distribution of the right of access to it by different categories of employees. As O. Bohdanov notes, “Having only a small part of the techniques and points of view accumulated in society, not being able to choose from and combine them in the best way, specialists are not able to cope with the material that is constantly accumulating, unable to organize it holistically and in coherent manner” [11, p. 97]. Artificial demarcation, which divides holistic knowledge and considers its fragments within the framework of isolated functional areas, cannot assemble (synthesize) it into a single picture that adequately reflects the position of the organization in the market space.

Abductive thinking gives the researcher of organizational dynamics a colorful analogy in the field of architectonics of scientific knowledge, where each disciplinary area makes a similar demarcation in the form of a protective belt from specific concepts, concentrating on the development of a separate segment of reality (economic, managerial, social, psychological and other) that is studied in isolation from existing interconnections. According to E. Morin, “… economics is mathematically the most advanced social science, at the same time, it is the most backward humanitarian sociological science, since it abstracts from the social, historical, political, psychological, environmental conditions that are inalienable elements of economic activity” [12, p. 31–32]. Such simplification may be justified at the initial stage of the development of scientific knowledge, but over time it loses its connection with reality and locks itself into the world of abstract (artificial) concepts, fulfilling only a normative (axiological) function and negating a positive (behavioral) function. The difficulties associated with finding such integrating grounds are revealed by O. Bohdanov through the analysis of sectoral and disciplinary specialization, which leads to “divergence of methods” and “mutual distancing” of these spheres, in addition, “it creates its own special language, so that even entirely similar ratios are expressed differently in them, and this masks the similarity; and at the same time, the same words are given a very different meaning, which makes the interaction of industries even more difficult” [11, p. 94]. Similar
processes occur in a functioning organization in process of its mechanism attempts to increase efficiency.

According to O. Bohdanov, “in creativity, the excellence of results depends not only on the richness and variety of combinations, but also on their complexity and connectedness” [13, р. 185]. However, the fascination with classical (canonical) management leads, in K. Jung's terminology, to "systematic blindness", which is conditioned by the phase of maturity and equilibrium of the life cycle of a functioning organization, which because of a sense of self-preservation remains indifferent to a number of its phenomena and facts, that do not fit into her complex theory. Most often economic theory is neglected: the activity of the subjects; value-targeted landmarks and their sources; the irrationality of the subjects. But, as it becomes clear, the logic of the development and functioning of organizational systems, their increasing complexity and uncertainty of the external environment orient in the direction of finding other ways to work with human resources and information.

The barrier to the emergence of a hierarchy in an innovation-oriented organization is, according to A. Hirschman's terminology [14], a free option of "exit". Formal procedures do not work at this stage. Because the "voice" option used by the subject does not properly arrange reality – the subject easily selects the "exit" option and search for another community to embody own ideas. Thus, the transparency of the boundaries of an innovation organization allows for seamless integration and disintegration. If the conditions of co-creation do not affect the mental antagonistic mechanisms of man, his or her perception of his or her own freedom of will does not lead to increased anxiety. Instead, a person has a sense of total control over his or her choices, purely out of his or her own interests and preferences, which is a necessary attribute of creative activity. In this context, the observation of, a Japanese specialist in the motivation of staff, Y. Kondo regarding the functioning of the quality circles is appropriate: “One of the reasons that amateur sportsmen are passionate about sports is that they practice sports voluntarily and in their time. Similarly, in the work of quality circles, the highest priority is given to autonomy and voluntariness. Therefore, the members of the groups voluntarily choose the topics and work on them with full dedication” [15, р. 42]. Based on the described situation, innovation-oriented organizations are guided in their activities by the provisions of the reflective scheme “conditions – consequences”. In contrast, the functioning organization uses a “goal – means” scheme [16].

In the first case, there is a fine-tuning of the activity of the innovation organization in accordance with the parameters of the situation, which in this approach maximizes the opportunities in the dynamically changing circumstances. In the second case, which is focused on the reproduction and stability of macroeconomic conditions, there is a permanent increase in the efficiency of business processes, which is their main task. In addition, an innovation-oriented organization is intuitively or consciously guided in its activity by a rapid cycle of adaptation to changes OODA [17], and a functioning organization bases its activity on a slow PDCA cycle in the best-case scenario, that with the time lag and because of admitted deviations takes into account changes in the external environment. In the worst-case scenario, the activity fixes around the reproduction of unaltered results that are indifferent to the change of the external environment.

**Fixing the image of innovation.** At the formation stage, transparency of organizational boundaries creates conditions for free exchange of information with the external environment. In addition, when creating an image of innovation, founders tend to be driven by their own needs, and if similar needs are inherent in other subjects, there is a high likelihood that a large number of potential consumers are in need of this value. This means that in such circumstances it is unlikely to generate innovative values that the market does not need (the creation of consumer voids). This is where the demarcation line between the autopoietic and the allopoetic creation of innovative values runs. In the case of autoapoiesis, the system generates the components it needs based on its own meanings and intentions, while the external environment creates only the impulse (irritation) for the emergence of the need to create innovative forms, and the subjects of the innovative organization, which is in the autoapoietic phase of its development, construct the necessary them objects based on their own ideas. Cognitively, this collaboration is operationally closed [18]. But if an organization unites these operationally closed systems and implements long-lasting interactions, then their cognitive systems co-evolve, creating an environment of shared meaning. In practice, this means the realization of the metaphor of the “expanded mind” where systems begin to act as a cohesive unity – a polysubject [1]. In contrast to autoapoiesis, allopoiesis is the next phase of organizational ontogeny, within which the generation of meanings occurs not from one's own needs but from the needs of the external environment. It is a reflexive attempt to create for others, which is in terms of generalized statistics of its effectiveness (≈ 20%) is far from rational use of limited resources.

**Reflection blocking.** As the collective vision reorientation happens from an external adaptive vision to an internal effective one, there is a transition of subjective (polysubjective) positioning. At the stage of organization creation, the participants in this process freely switch between the positions of the direct participant and the outside observer, cognitively migrating without hindrance between the roles of the consumer.
and the constructor of innovative value. Their perceptions of the organization are twofold: as integrity and as part of an environment that performs basic functions. Over time, focusing on internal processes and making the transition to a performance enhancement model, the ability to switch between these positions is drastically limited. Now everyone’s activity is a clearly defined functional area with her inherent criteria of suboptimality. Contacts with the external environment are provided for a limited number of structural units. Their interactions are governed by internal rules, good behavior algorithms that simplify communication, but diffuse initiative and creativity. The presence of such behavioral mechanisms in a functioning organization makes it an anachronistic necessity to switch between reactive and reflexive positions. Remaining constantly in the position of functionary, the subject monitors its own performance, comparing achievements with organizational standards, and in cases of deviation, acting in accordance with the recommendations of the algorithm. The latter unifies the thinking of the performer and deactivates his or her neural plasticity. The position of the active thinker is excessive within such hierarchical structures. Thus, there is an evolutionary blocking of reflection at all functional levels of the organization. The loss of the organization's ability to co-evolve with the market environment intensifies internal processes. This happens due to the exclusion of existing cognitive heterogeneity from the decision-making space. Without the need for extensive discussion, agreement, and collective decision-making, there is an opportunity for rapid decision-making by an authorized subject or group, with the further “pushing” of them through the performers' reactive resistance.

Cyclicity of functioning, and therefore, the reproducibility of results with the same quality indicators, does not have many opportunities to increase profits. The scale effect surely exhausts its own benefits in a globalized world where customization, micro-markets, imitators and changing needs do not allow manufacturers to use such luxury of the past as production of large volumes of homogeneous products. Therefore, in the arsenal of the organization, there is left only combinatorics of the elements of the cost of the reproduced product, which in its hypertrophied sample can take extremely negative forms in the context of social responsibility and sustainable development. The transition to a paradigm of functioning in the context of extended responsibility for business activities leads to the ambivalence of organizational behavior. The latter, for natural reasons, moves the organization into the plane of irresponsible and asocial actions [19]. The practice of manipulating the minds of consumers and society, carefully covered by single good-natured acts, but in a society of growing reflection formed on the basis of modern information and communication technologies, such a latent essence of modern organizations becomes obvious to many people. However, this phenomenology remains beyond the study of classical management, focused on the search for normative, reproductive practices, and these behavioral characteristics do not affect its coherent theory. In the theory of management, starting with “The Principles of Scientific Management” by F. Taylor, a demarcation between intellectual (managerial) and physical labor is postulated. Managerial dominance is seen in it as a natural process, productivity and efficiency gains are unimaginable in an organizational democracy, and even more so with a liberal approach to its governance. The classics of management concentrates the fullness of power in the hands of the autocrat, to which it delegates the basic reflexive functions, at least those that relate to the organization as integrity. Of course, it is experimentally confirmed: the productivity growth in autocratic style is higher than in the democratic one, but we should pay attention to the phenomenology of the processes that take place, their relevance and validity in the current conditions of growing intellectualization of the economy. The freedom of choice and the reflexive abilities of the worker are trapped within the limited borders of the algorithms of activity. This causes a hidden resistance to organizational standards and an antagonistic behavior of performers, which sabotages and deliberately emphasizes the limitations of the developed procedures and decisions taken. Hence the loss of the ability to switch between reactive and reflexive positions, as well as the rebuilding of the organizational boundaries with the external environment, which reduces the level of cognitive diversity of the organization and brings the logic of complexity reductionism in the processes of its functioning. All this leads to a foreseeable loss by the organization of the adaptive capacity required to co-evolve its business model with the market environment.

Leadership. Normative managerial epistemology, which reduces (dissects) the external environment through analysis and deterministic influences, does not contain the necessary phenomenological (behavioral) complex of elements to claim the role of an effective managerial basis in modern conditions of complexity management. As O. Bohdanov notes, “having only an insignificant part of the techniques and points of view accumulated in society, not being able to choose and combine them in the best way, specialists cannot cope with the material that is constantly accumulating, unable to coherently and holistically organize it” [11, p. 97]. This actualizes the necessity of rethinking of the basic principles of management theory, with a further transition to a convergent management epistemology.

Collaborative creativity creates conditions for the proportional distribution of leadership functions among all participants, the concentration of leadership functions in one hand occurs in specific episodes...
of activity, when the background of others appears a person who has some experience and offers a relevant solution scenario [12]. The informal delegation of leadership powers takes place according to the principle of meritocracy (from the Latin – the power of the worthy), nominating to this position the subject who has the necessary combination of competencies. That is, power in this system is authoritative in nature, as opposed to authoritarian in reproduction-oriented organizations. In contrast, a functioning organization nominates a subject to a leader role who has a relevant functional reputation needed for an appropriate position and has a credit of loyalty to the system. It assigns to the subject of management a formal authority that is based on subordination and requires constant confirmation through status behavior and rituals. This approach neutralizes a culture of ideological openness and freedom of creativity, that eradicates a plurality of perspectives on a problematic situation, which could potentially be involved in developing a space of solutions. Thus, the restriction of the subject of management happens by functions of a formal manager, with the activation of pathologies of rational hierarchical systems. Perception of organizational problems is reduced to the limits of the cognitive capabilities of the manager, the use of staff cognitive potential is significantly complicated.

In such circumstances, the implementation of one of the principles of effective management – the principle of the necessary diversity – is extremely unlikely to happen. Because, in order to put this principle into practice, a leader must have a greater level of cognitive diversity than all other members of the organization, who makes up a polysubjective integrated cognitive system. The principle of the required diversity is that the diversity of the managing system must be no less than the diversity of the managed subsystem. Simple systems of management that do not meet the complexity of the managed subjects are not able to take into account the diversity of their states and their interaction with the external environment, which does not provide the required quality of management. Therefore, it is impossible to cognitively simple manage cognitively complex systems. In view of this, the rigidly assigned role of the management subject in this process reduces the productivity of the innovation activity. In such circumstances, the leader will not act as a facilitator of creative processes, but as a filter, which, depending on the ability of his or her cognitive system, will pass on only those ideas that are recognized by his or her system of distinction (presented in his or her informational model of the world). From this, we can conclude that even a small attempt to hierarchize the creative process breaks down the subtle self-tuning that occurred in the process of co-evolution of cognitive systems and mutual ideas about the image of the future through mechanisms of self-organization and self-development.

Manufacturing. Using the abductive method, one can notice an analogy in the history of human development, when a person goes from handcraft to mechanization of their own operations of manual labor, most of their inherent skills become unnecessary, the institution of mentoring and the transfer of secrets of craft are lost, and with them, flexibility inherited in this industry diffuses through substitution by mechanistic, unified technologies. H. Marcuse captures the essence of the one-dimensionality of the person in the technical rationality imposed on him or her: “individuals identify themselves with the way of being, which they are imposed on, and find ways of their development and pleasure in it” [20, p. 35]. A mechanism, technology is the intermediate means between the person and the result created by him or her, they cause the appearance of the cognitive line regarding the adaptation of available means and results to a changeable external environment. As a consequence, it is possible to assume that a person who is not involved in the creation of a mechanism of replication of values, in most cases has no idea about the constructive characteristics of its functioning, is alienated from the values, and accordingly, is not able to adapt to the changes that are happening. This is probably the basal reason for the transition of Japanese corporations from mechanized conveyor lines to modular assembly, in which a person, through manual labor, assembles technically complex products from scratch to full readiness at his or her workplace. It is a process of reviving a mastery that does not have intermediate means, which complicate feedback, and a human-sized system, which is a change-sensitive, adapts its skills while being in the process of permanent change and development. Although the Japanese themselves emphasize quality by representing modular assembly as an urgent condition of modern competitiveness, it can be assumed that socio-humanitarian and innovative aspects also with this approach receive further development in the context of the co-evolution of socio-technical systems.

Model of reality. In the process of the organization’s excretion from the external environment and reduction of opportunities for contact with the surrounding reality, there is a need to construct its information model of reality. So unarticulated, but understood by all actors, the mission of their joint creativity is replaced by an articulated organizational strategy, which reflects the views of organizational architects about how the world around this formation works, and what place does it occupy in it. A similar separation from reality, combined with the focus on its abstract model, which is implemented through the abandonment of the most reliable sensory sources of perception of the surrounding world, leads the organization to probabilistic drift in the market space. An axiological rethinking by the organization of perception of the external environment from creative interac-
tion to manipulative influence takes place, where the environment is perceived as a means of achieving organizational goals, and the organization, as the architect of consumer preferences and choices [6]. As a result, the organization from the auditor of the ontological voids of consumer habits and attempts to fill them with relevant results goes into hypostasis of imposition of needs and managing the process of perception and choice.

Behavioral conditionality of organizational ontology. The initial stage of interaction between subjects has the nature of intensive communications, the catalyst of which is the situation of convergence of interests. Temporality of such collaborations is obvious, and the likelihood of occurrence of a similar natural and all-consuming interest is unlikely within the framework of the next project. One of the reasons for the productivity exhaustiveness of the primary collaboration is due to the fact that over time its participants get closer and form a zone of comfortable interactions, which is characterized by low levels of uncertainty of interpersonal relationships. This, in turn, leads to attempts to consolidate a comfortable state by means of a formal organizational structure that reproduces own results. But the adaptive potential of such a structure is exhausted due to the fixation of the cognitive heterogeneity of its participants. Constant communication interactions lead to a co-evolution of the cognitive systems of the subjects of co-creation and, as a consequence, to ideological homogeneity. This evolutionarily shaped phenomenology, which demarcates the contingent boundaries between a functioning organization and a developing organization, demonstrates a behavioral pattern. This means that when an organization begins to take on the form of a formal institution, evolving in the organizational continuum in the direction of a paradigm of functioning, the portfolio of its projects will no longer be so inspiring to most founding subjects. Here appears a certain routinized and externally imposed organizational processuality and goal-setting that come into conflict with the phenomenology of the creative nature and cause reactive resistance on her part. Then there is a shift toward the plane of artificiality, creativity in certain framework, which changes personal motivation. As the main source of subjective activity, material rewards begin to perform, and the motives for self-actualization quickly weaken and disappear.

D. Stark expresses the following idea: “instead of simply responding to situations that externally arise from time to time, why not encourage such organizational forms that would again and again produce situations of uncertainty within the organization itself? Organizations that can adapt to such forms will achieve the necessary balance to match the uneasy requirement – continuously implement innovations” [3, c. 18]. Also D. Hurst insists on purposeful provocation of crisis situations for updating of organizations [1].

Specified limitation of the cognitive potential of the initial collaboration is conditioned by the equipotentiality of the cognitive co-evolution of the actors of a closed organization, as a dynamic property of the social system, which makes the transition to the final state in different ways and under the influence of different initial cognitive capacities of the individual subjects. This leads to the intellectual homogenization of the polysubject, because all its participants begin to move in the cognitive continuum to a single, common way of thinking [1]. Each participant evolves to a general level of awareness of the problem under study, there is an mutually enriching exchange of cognitive constructs, by the results of which the expansion of participants’ information models happen, but now the community thinks in a one-dimensional manner, and as W. Lippmann points out: “where everyone thinks the same nobody thinks too much” [21, p. 46]. In this context, Einstein’s words are particularly convincing: “our thinking creates problems which cannot be solved by the thinking of the same type”, if the participants become comparable in terms of cognitive perfection, assessing the situation from the standpoint of the same cognitive constructs, then it is drastic narrows the field of alternatives. This requires the organization to extend the reflective field beyond her boundaries by attracting external cognitive diversity in order to continue to interact effectively with the innovative complexity of the surrounding world.

Social determination. The social nature is inherent in the contradiction, which is permanently resolved at the level of the individual and is the driving force of its supra-situational activity. This contradiction, to some extent, repeats the counteraction of motives which is inherent in organizational ontology, that, as a result of this process, loses its flexibility. Contradictoriness of subjective intentionality is as follows: on the one hand, human neurophysiology seeks familiar and reproducible activity, that is supported by appropriate dopamine bursts, which cause a sense of satisfaction, and on the other – stimulating influence of the external environment pushes to the permanent exits from the comfort zone and expanding own model of the world. In rare cases, a person manages to localize himself or herself in society in such a way that the activities she engages in brings pleasure and contributes permanent development. According to Ch. Leadbeater, “freedom of self-expression through creative work has remained the privilege of the few who work in so-called “creative positions”. For most people, work is still a necessity, and they get a sense of self-fulfillment in their spare time” [2, p. 144]. Similar trends are recorded by the world-renowned researcher of the psychology of creative activity M. Csikszentmihalyi. Nature and society create such stable forms in which the interest, as attention-grabbing affect, is contained only in the initial stage,
followed by a routinized ontology, existence with a minimal amount of uncertainty, existence with the possibility of prognosis. This creates reservations of permanence in an ever-changing world. In the world where Laplace determinism is broken, where causes occur before than known to a person effects, the ability to sense and rely on a familiar landscape is the possibility to switch to unconscious, automatic mode of action, the possibility to use much broader cognitive resources. The modern world, in which uncertainty is its immanent property, more persistent demands the creation of new social forms of synergy. Forms in which interaction with the surrounding social complexity and diffusion of uncertainty will be carried out not through blocking the reflection of society and manipulation of consciousness and choice (narrowing the space of alternatives), but through the possibility of free embedding of this social complexity into the decision-making mechanisms of institutions of all levels.

Conclusions and prospects for further research.

The effectiveness of innovation activity of organizations is largely driven by the creation of appropriate innovation conditions, which are conditioned by the presence in them of symbiotic and hierarchical organizational structures that combine the properties of effective and adaptive organizations. Achieving a high innovation level of organizations is considered feasible to provide by expensing the adaptive block beyond the borders of organization through the creation of an innovatively active environment based on external cognitive diversity and embedded in the existence of a particular type of organizational culture. It will help to reduce the impact of self-preservation processes in the system, which always reduce the innovative activity of the organization and lead to the slowing down and reduction of development processes, the reduction of cognitive tension and the transition to normal functioning.

Improving the effectiveness of innovation activity of organizations can be achieved by providing a balance between the reproductive and the innovative function of the organization by maximizing above-mentioned innovation characteristics of the organizations, which can be considered as managed variables. The degree of innovation of the organization can be seen as a measure of conformity of organizational behavior to the existing social determinants. Practical interest may also be in identifying the mutual influence of these variables and exploring the effects of their synergy and multiplicativeness.

Thus, all of this actualizes the creation of such organizational forms in which interaction with the surrounding social complexity and dispersion of uncertainty will be carried out not through blocking the reflection of society and manipulation of consciousness and choice (narrowing the space of alternatives), but through the possibility of free embedding of this social complexity into the decision-making mechanisms of institutions of all levels.

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ОСОБЛИВОСТІ ІННОВАЦІЙНО-ОРІЄНТОВАНОЇ ОРГАНИЗАЦІЇ: ПОВЕДІНКОВА ПАРАДИГМА

Стаття узагальнює аргументи та контраргументи в межах наукової дискусії з питання використання поведінкового підходу до управління інноваційно-орієнтованою організацією. Систематизація літературних джерел та підходів до вирішення проблеми підвищення результативності діяльності інноваційно-орієнтованої організації засвідчила, що в сучасних концепціях управління інноваційними організаціями поведінковим аспектом їх функціонування та розвитку приділяється недостатньо уваги. Актуальність вирішення даної наукової проблеми обумовлюється необхідністю розвитку інноваційних процесів організацій і потребою в підвищенні загального рівня її інноваційного потенціалу.

Основною метою проведеного дослідження є визначення типових особливостей сучасних інноваційних організацій, що мають поведінкову природу та які сприяють підвищенню результативності інноваційної діяльності.

В процесі дослідження особливостей формування та розвитку сучасної інноваційно-орієнтованої організації, узагальнено етапи розвитку інноваційної організації, визначено процеси, що забезпечують результативність інновацій, проведено порівняння особливостей організацій, що орієнтовані на розвиток, та організацій, що орієнтовані на функціонування. Визначено ключові особливості інноваційно-орієнтованих організацій.

Методичним інструментарієм проведеного дослідження стали методи аналізу, узагальнення та порівняльного аналізу, методи системного підходу та аналогій. Проведено теоретичний аналіз досліджень зарубіжних та вітчизняних вчених, які вивчали зазначену проблематику.

В результаті визначено особливості сучасних інноваційних організацій, що обумовлюють результативність їх діяльності. Показано зміну поведінки інноваційно-активних суб'єктів на суб'єктному та полісуб'єктному рівнях під впливом адміністрування, рутинізації та порушення цілісності діяльності. Зазначений комплекс особливостей може бути використаний в якості інноваційних орієнтирів під час моделювання та управління інноваційною діяльністю та інноваційними процесами в організаціях.

Ключові слова: інноваційно-орієнтована організація, колаборація, коеволюція, онтогенез, надситуативна активність.