Ministry of Education and Science of Ukraine Sumy State University Kaunas University of Technology, School of Economics and Business

University of Bradford, School of Management
Riga Technical University
Czech University of Life Sciences Prague
University of New Brunswick
International Centre for Enterprise and Sustainable



"ECONOMICS FOR ECOLOGY"

Materials International scientific-practical conference (Ukraine, Sumy, May 16-19, 2023)

> Sumy Sumy State University 2023

УДК: 333.7:502.7

Авторський знак: S70

Editor-in-Chief Prof., Dr. Karintseva Oleksandra, Head of the Department of Economics, Entrepreneurship and Business Administration, Sumy State University

Approved by the Academic Council of Sumy State University (order № 0586-I, 03 July, 2023)

Economics for Ecology: Proceedings of the International Scientific and Practical Conference, Sumy, May 16–19, 2023 / edited by Karintseva Oleksandra and Kubatko Oleksandr. – Sumy: Sumy State University, 2023 – 104 p. (*electronic edition*)

For scientists, scientists, students, graduate students, representatives of business and public organizations and higher education institutions and a wide range of readers.

INNOVATIVE DYNAMICS OF DEVELOPMENT OF THE MODERN ORGANIZATION MANAGEMENT PROCESS AND INNOVATIVE APPROACHES IN MANAGEMENT

Anastasia Bogacheva, 4th year student, Odessa National University named after I.I. Mechnikov, Ukraine

In the modern conditions of the economy development of Ukraine, the majority of enterprises require the creation of such a management system, which would allow more effective use of available resources, is able to find such potential (including financial and human), capable of bringing the enterprise to a new level of development based on its ability to self-organization. Problems of a social,

economic and political nature, new challenges associated with the COVID-2019 pandemic and Russia's military aggression on the territory of Ukraine, which required new skills and areas of application of entrepreneurial activity; currency and financial instability, as well as competitive challenges of the European market, etc. have made the external environment of enterprises much more complex, dynamic and uncertain. The specified conditions shifted the emphasis when forming the company's strategy to optimize economic, financial and production indicators in order to ensure flexibility, efficiency and adaptability. This necessitates the improvement of the principles of self-organization and the disclosure of the management system and, accordingly, the formation of innovative foundations for managing the dynamic development of the enterprise, which makes the topic of this work relevant and in demand by the market.

The concept of economic innovation was developed by Joseph Alois Schumpeter in the work "Business Cycle" (1934), who determined that innovations are the main source of economic growth. However, the concept of innovation was defended much earlier – in the work "Theory of Economic Development" (1912), where the term "new combinations" was used, in which the scientist personified the form and content of development [1].

Today, it is possible to clearly distinguish three main approaches to defining the essence of the term "innovations" [2]:

- innovation is the result of a creative process by means of new or improved production (technology);
- innovation is the process of introducing, mastering and using new solutions, the process of changing and improving one or another product in one or another economic area:
- innovation is considered as a change, update, occurring in a product, technology, system, method.

The essence of the innovative development of modern organizations is that it is a continuous process of adaptation of the enterprise to the rapidly changing external conditions of the present time through self-organization due to the introduction of the latest technologies and approaches to the activities of the organization with the aim of improving it and ensuring stable development, increasing profits, increasing competitiveness and as a whole to achieve the goals and objectives of the organization. The only constant value of successful organizations is their constant change. Innovative development is a process of "creative destruction" of the existing system of the organization in order to strengthen its market positions and create conditions for upward development.

Economically developed countries form the direction of development of the real sector of the economy and the corresponding infrastructure in accordance with technological conditions. Today, economically developed countries are in the sixth technological resettlement, which began in 2010. It is at this time that cognitive

science (the science of ways of knowing and thinking) is the source of new wealth and the focus of entrepreneurial attention. In modern conditions, organizations that will develop the cognitive and creative potential of a person, the ability to know oneself and the world as a manifestation of one's internal thought processes, to reveal and develop the human in a person will be relevant. We found ourselves in a post-industrial society (overproduction of goods) and a post-information society (overproduction of information). For the full deployment of the sixth technological system in the world, only one task remains to be solved - to create a mass cognitive product that will become the basis of innovative development dynamics, including the development of a management system for business entities.

There is already a Silicon Valley in the world, where start-ups provide great privileges that can attract the best specialists in the field of technology to increasingly develop technological equipment that does not require the presence of a person (driverless cars, pilotless aircraft, etc.). At the same time, technology, such as a car, becomes more and more complicated, and a person becomes simpler. A paradoxical situation is created: car control systems are programmed according to the logic of human thinking (representation of a modern car by a digital network, the use of neuromathematics in complex systems of neural networks) and at the same time the driver/person himself is maximally removed from control and performs a control function. Thus, the problem of the modern world is in the growing gap in perfection and the rapidly growing capabilities of technology against the background of lower requirements for the personal capabilities of each person. Technique improves exponentially, while human potential is not exponentially activated. And all this is happening against the backdrop of the oppression of the natural environment of man. The new carrier of higher intelligence on Earth - artificial intelligence (AI) of large language models ChatGPT - is, in fact, a non-biological being. Therefore, it evolves at a speed unthinkable for biological beings, 3,000,000 times faster than humans. We don't even try to imagine what he will be capable of by 2030.

Therefore, it is extremely necessary to create a Cognitive Valley in the world, the main goal of which will be the development of the "humanity in human" and the activation of his creative abilities. Ukraine can initiate this direction in the world economy and start building up the national economy on these foundations. And Odessa has every chance to become the Beginning of the Cognitive Valley with a focus on improving human-dimensional codes for a balance between them and AI. Because Odessa is already the world capital of humor, and humor is the highest intellectual activity that connects opposites, and this indicates the ability of thinking and the ability to remain human, and not use ready-made answers from someone else's experience.

Today, one of the most important and problematic issues that organizations face is the problem of introducing innovations into their management activities.

Most organizations come to the conclusion that at least once a year it is necessary to carry out a moderate reorganization and a radical reorganization every 2-3 years, otherwise its survival in a dynamic environment becomes impossible. Requirements for change come both internally in the form of the needs and expectations of employees, and externally, in the form of growing competition, technological innovations, new legislation, and pressure from social factors. In order for the changes to give the best result with the least amount of money, effort and nerves, the process of change in the organization must be best organized and managed.

As we can see, the new conditions of uncertainty in which the whole world, including the economy, find themselves, need new methods and forms of management processes of organizations at all levels. Therefore, we propose to consider the scientific and methodological potential of synergetic strategies in ensuring an increase in the efficiency of management decisions.

The economic world is highly complex and non-linear in nature, where everything is connected to everything. His study of the approaches and methods of exact sciences and the latest methodology of scientific research led to the concept of a synergetic economy [3].

Synergetics (gr. Syn – compatible; ergos – act): the science of the joint, coordinated behavior of many elements as one whole through a complex system of various nature. It is interdisciplinary in nature. Synergetics is interested in the general patterns of evolution (development, movement).

Synergetics is the only theory of self-organization; self-organization is a fundamental phenomenon characteristic of complex nonlinear dynamic systems without a guiding and directed "hand" (force, signal) acting from outside. It distinguishes a few (several) so-called order parameters, on which the quantities that characterize the state of the system (object) under study depend. In turn, they also affect the order parameters, their choice.

Synergetics studies the processes of transition from chaos to order and vice versa (processes of self-organization and self-disorganization) in open nonlinear environments of different nature. It is precisely such systems that include objects of management – organizations, enterprises, etc.

Self-organization – processes of spontaneous putting in order (transition from chaos to order), formation and evolution of structures in an open non-linear environment.

An open system (environment) is a certain type of systems in which there is an exchange of matter (substance), energy and (or) information with the environment (there are sources and sinks).

Coherence is the behavior of elements within the system coordinated in time and space. The coherent behavior of elements is the basis for the emergence of complex ordered spatial structures of chaos.

Synergetic effects – the emergence of cooperative, coherent behavior of parts in the system.

Synergetic economics deals with the temporal and spatial processes of economic evolution, dealing with unstable, non-linear systems, focusing on such phenomena as structure variability, bifurcation, chaos and synergistic effects of the economy [3].

The synergetic economy expands the possibilities of the traditional theory of economic dynamics (business cycles, economic growth). The fundamental economic mechanisms proposed by the traditional economy (competition, cooperation, rational behavior of the subject, stability and equilibrium) are not excluded, but the synergetic economy also adheres to other provisions: the sources of complex economic evolution can also be instability and nonlinearity, the irreversible nature of processes, the open nature of processes.

It is also taken into account that small fluctuations can lead to significant changes in the behavior of a dynamical system. In other words, insignificant variations in the parameters of the system generate qualitative changes in the dynamic behavior.

Synergetic economics emphasizes the interactions of diverse variables and different levels of the system. This takes into account the principles of systems analysis, but is fundamentally different from it, because in the traditional sense, systems analysis implies sustainability.

Complex systems should not be forced to follow the path of development, but only by small actions to promote the transition to a state of greater order, taking into account the internal trends in the development of the system and in such a way as to ensure the growth and flourishing of all elements of the system.

An acute problem arose of such an economic theory that would not only explain the causes of crisis phenomena, revealing their mechanism, but would provide means of struggle, at least predict scenarios of events. In other words, one must learn to manage the situation without fighting the nature of the economy. For countries with a deep transformation of the economy, the postulates of the theory of general economic equilibrium did not materialize. Static economic analysis has been replaced by non-linear dynamics of macroeconomics (economic dynamics) as a way of understanding economic cycles and their development. To make a qualitative forecast of the evolution of the economy, tools of nonlinear analysis are required.

Self-organization in economic theory in a certain sense was also considered by I.A. Schumpeter. He believed that the economic system does not return to equilibrium, but goes into a new qualitatively different stationary equilibrium state with significantly different quantitative parameters associated with conservation, investment and changes in the base of fixed capital (its structure). There is an abrupt transition from one stationary state to another at a

qualitatively new level, which is the dynamics of the economic development of society. There is a kind of constant adaptation of the economy. Innovations (innovations) for such a transition, in particular, new combinations of more efficient use of available resources in production.

Joseph Alois Schumpeter considered the crisis and the period of depression as necessary conditions for the manifestation of entrepreneurial innovative properties of a person in the economy. Crisis as a turning point to recovery from stagnation. Right now, the world economy has found itself in such a state, and this is a challenge to the intellectual potential of a person for the manifestation of creative solutions, taking into account scientific and methodological ideas about the natural processes of the complication of economic systems.

The most common innovative approaches and practices in management are new methods and tools that can help managers achieve more effective and efficient decisions than traditional approaches. Here are some of them:

Дизайн-мислення (Design Thinking) — a method of problem solving based on a systematic approach to research and understanding the needs of customers or users, allows you to create innovative solutions and focus on customer needs. (Design Thinking in Business, Tim Brown, 2018)

Агіл-менеджмент (Agile) – is a project and team management method that allows you to quickly respond to changes and adapt to new requirements through an iterative development process that adjusts tasks and priorities within the team and interaction with the customer. (Agile-менеджмент и управление командами, Юрген Аппело, 2018)

Лінія малої серії (Lean Startup) – it is an innovative approach to business development that minimizes risks and costs for maximum results. The main focus is on creating a minimum viable product (MVP) that allows you to quickly get feedback from potential customers. (The Lean Startup. How Constant Innovation Creates Radially Successful Businesses, Eric Rise, 2011)

Бізнес-модель Canvas – it is a tool that allows you to describe the business model of an organization in a clear and understandable way. It helps managers create and test new business models and identify innovation opportunities. (Построение бизнес-моделей: Настольная книга стратега и новатора, Александр Остервальдер, Ив Пинье, 2020)

Strategy "Blue Ocean" – This is an approach to the formation of a business development strategy that allows the company to create a new market and avoid competition in already occupied markets. It is based on researching the needs of clients and creating competitive advantages that are different from those offered by competitors.

("Strategy Blue Ocean", Harvard Business Review Press, расширенная версия, 2015, В. Чан Ким и Рене Мауборн)

Innovation leadership is an approach to leadership focused on stimulating creativity and innovation in an organization, developing a culture of innovation and supporting talented employees.

Knowing and being able to synergistically combine these approaches can help you meet challenges and achieve better results and management efficiency.

Conclusions. The innovative dynamics of the development of the management process arouses the interest of the scientific community in solving the problems of synthesizing the laws of management that determine the management structure of the organization, which would ensure the expected nature of the processes in socio-economic systems, which are companies, firms, organizations. The dynamics of these systems may be accompanied by chaotic phenomena caused by the specific impact of the market environment on them. The effectiveness of management largely depends on the speed of adaptation of the organization to new conditions. A successful company is one that does not wait for crises in order to change, but manages changes in its internal structure in advance in such a way that when unpredictable circumstances come, it is ready for them ahead of time.

Recently, many scientific results in the field of systems theory have been associated with synergetics, considering it as a theory of self-organization and self-development of open systems of various nature, including organizations, companies, firms, as a new approach to understanding crises in these systems and creating means to manage them. It is extremely necessary to create a new understanding and attitude to management, which, along with traditional management, includes innovative self-organization as the basis for entrepreneurship in the field of intellectual product transfer, recognition of the imbalance of any innovation system, and the emergence of translucent boundaries between partners in innovation.

The main task in the innovative management of an organization is the formation of a culture of value for the person himself. In the case of today's dynamic world, companies must learn to unlock the potential of their employees and reduce the degree of bureaucracy, gather an effective staff and educate leaders who will serve the people [4]. Replacing bureaucracy with passion and creativity (a machine cannot create, but only works according to a program), you need to learn how to build effective organizations, create a working environment in which everyone will have a chance to flourish.

References

1. Йозеф А. Шумпетер. Теорія економічного розвитку. Дослідження прибутків, капіталу, кредиту, відсотка із економічного циклу / перевод Василий Старко / Видавничий дім «Києво-Могилянська академія», 2011. — 244 с.

- 2. Микитюк П. П, Крисько Ж. Л., Овсянюк-Бердадіна О. Ф., Скочиляс С.М. Інноваційний розвиток підприємства. Навчальний посібник. Тернопіль: ПП «Принтер Інформ», 2015. 224 с.
- 3. Шевцова Г. 3. Синергетичний менеджмент підприємств: моногр. / Г. 3. Шевцова; НАН України, Ін-т економіки пром-сті. Київ, 2016. 454 с.
- 4. Ґері Гамель, Мікеле Заніні. Людинократія. Створення компаній, у яких люди понад усе / Переклад Дмітро Кожедуб. К.: Лабораторія, 2021. 352 с.