

UDC 334:330.131.7:330.341.1

## **CIBERETHIZATION OF INNOVATION MANAGEMENT**

**Hanna Vereshchagina**, PhD in Economics,  
Associate Professor of the Department of Management, Logistics and Economics  
of Simon Kuznets Kharkiv National University of Economics,  
e-mail: konfeconom2017@gmail.com;

**Tetiana Vashchuk**, master student  
of Simon Kuznets Kharkiv National University of Economics,  
e-mail: konfeconom2017@gmail.com

The scientific and technical process, which is rapidly developing, becomes the main mechanism of the economic process regulation. Changes that occur in the external and internal environment of the enterprise are characterized by the need to find new management methods and solutions. All this in a new way raises the question of managing the company as a subject of market relations, its ability to adapt to the dynamic conditions of the market. Possible decision to adapt to the existing market can be considered cybernetization of management, because it is such a science as cybernetics is engaged in the process of efficient transmission, storage and information processing, during the transfer of managerial decision.

Analysis of recent research and publications. The following scientists studied the cybernetics and its significance in the management process: N. Wiener, I. Drohbitsky, A. Berg, Y. Chernyak, V. Glushkov, V. Turchin, T. Vashko, N. Markov, Y. Fet, A. Shiyan etc.

The purpose of the article is to substantiate the need for cybernetization of the management process to avoid distortion of information during its transmission.

Presentation of the main materials of research. Management is a process of developing, adopting and implementing targeted effects on any element of a managed system or on the system as a whole, designed to ensure its effectiveness and efficiency at the current moment in an accessible for the prospect.

Process Management – a set of specific activities aimed at streamlining and coordinating the operation and development of the organization and its elements in order to achieve their goals [1, p. 25]. Without information there is no management [1, p. 59].

The development of alternative options and the adoption of management decisions are informational and knowledgeable nature and occur in a wielding intellect environment. Such developments necessarily provide for possible consequences. For such a prediction, a model is required [14, p. 118–222]. The main practical task of cybernetics is optimization: that is, the solution to the problem of how to achieve the organization of each element of the system under such conditions, such interaction between elements and exchange with the external environment, so that the results of the functioning of these systems were the best, that is, minimize costs (time, raw materials, energy, human labor, etc.) that are used to achieve a given goal [11, p. 55].

Cybernetics has established that in all systems, the control processes are implemented according to a single scheme, which involves the collection, processing and transmission of information. Accordingly, any cybernetic (self-regulating) system with a closed control circuit (information transformation) represents a set of control subsystem (subject, control body), controlled by a subsystem (object control) associated with a closed loop of information conversion. Under conditions of competition and commercial secrecy it is impossible to collect and process information in real time, and the interests of private owners and corporations are extremely rarely the same as the interests of society as a whole. Also, the question arises about the reliable protection of the data of the enterprise, personal data of their employees, etc. With the introduction of cybernetization, the protection of information is one of the most important factors of success.

Due to the use of the cybernetization method, the main task of cybernetics is realized – optimization of the managerial process, and allows to react to problems in real time, and to support the acceptance of managerial decisions.

The scientific novelty of the results obtained is to improve the methodological approach to cybernetization of management processes at enterprises under the conditions of innovation activity, which is usually characterized by a high level of uncertainty of the expected results of economic activity of enterprises; which differs from the known is to reorganize the management of enterprises in the conditions of their innovation activities, based on the use of a complex of modern applications that provide solutions to the main tasks of the components of cybernetics; and it reduces the risk of inefficient transfer of managerial information and reduces the impact of objective and subjective problems affecting management decisions.

### Literature

1. Wiener N. Cybernetics and Society. М. : Unity-Dana, 1958. 312 p.
2. Глушков В. М. Кибернетика. Вопросы теории и практики. М. : Едиториал, 1964. 640 с.
3. Гужва В. М. Інформаційні системи і технології на підприємствах : навч. посіб. Київ : КНЕУ, 2015. 436 с.
4. Дрогобыцкий И. Н. Совершенствование системы высшего образования: тенденции и перспективы. М. : Юнити-Дана, 2016. 323 с.
5. Жураковский Ю. П., Полторак В. П. Теория информации та кодування. Київ : Вища школа, 2012. 368 с.
6. Зайченко Ю. П. Дослідження операцій. Київ : ЗАТ ВІТОЛ, 2013. 216 с.
7. Кабкова Е. Н. Теория организации. М. : Аллель, 2014. 220 с.
8. Ладанюк А. П. Основы системного анализа. Київ : КНЕУ, 2014. 314 с.
9. Онуфрієнко Г. М., Черневич А. Л. Термін комунікація в поняттєвому вимірі й лінгвістичному контексті. Київ : Вища школа, 2014. 314 с.
10. Плешу Г. О., Шаповал С. С., Фоменко Г. С. Управлінські інновації як головний чинник реструктуризації підприємств – суб'єктів зовнішньоекономічної діяльності. Київ : КНЕУ, 2015. 198 с.
11. Розанова Л. В. Основы кибернетики: конспект лекций. Омск : Изд-во ОмГТУ, 2013. 160 с.

**12.** Турчин В. Ф. Феномен науки: Кибернетический подход к эволюции. М.: ЭТС, 2016. 368 с.

**13.** Фет Я. И. Из истории кибернетики. М.: Едиториал, 2015. 318 с.

**14.** Шиян А. А. Экономическая кибернетика: Введение в моделирование социальных и экономических систем. СПб.: СПбГИЭУ, 2013. 314 с.

