

## MEANS AND TOOLS FOR INNOVATION MANAGEMENT IN EDUCATION

Innovative information technologies, information and innovation management, as well as innovative marketing are widely used in the management of innovation in education and uniting in the group of means and tools for innovation management in education [1]. They can take place in almost all types of the innovations in the education system, which can lead to innovative changes to achieve new quantitative and qualitative parameters of education. They can take place in almost all types of the innovations in the education system, which can lead to innovative changes to achieve new quantitative and qualitative parameters of education.

Means and tools for innovation management in education are consists of:

- Information technologies.
- Information management.
- Innovative management.
- Innovative marketing.

Information technologies in education use computer technology, Internet and Intranet, remote methods of organization and management of educational activities, are used to develop a variety of information retrieval systems and information, advertising, and marketing materials (using web design).

Information management in education, based on the use of information technology, is a subsystem of decision-making and aims to manage the processes of creation, processing, and distribution of information in the field of education. One of the main functions of information management in the field of education is to develop an organizational structure that would provide timely and objective information in the right place, at the right time, and in a convenient way to make effective decisions. The introduction of information management in education is dictated by the following circumstances: scientific and technical development of society, integration and effective use of funds for development, application and effective use of information technology (set of information resources, tools, methods, and technologies that contribute to the effective management of educational activities). including – development and implementation of management decisions in the field of education); the need to integrate all the data that determine the efficiency and effectiveness of the education system as a whole and each of the educational entities (its components).

Innovative management in education is a system of strategic management of innovation processes in order to study the main directions of educational, scientific, technical, and industrial activities and justify a set of measures for the implementation of innovation strategy. Its tasks are: a) development of plans and

programs of innovative activities in the field of education; b) development and implementation of a unified innovation policy in the field of education; c) training of scientific and pedagogical specialists and providing all areas of educational activities; d) providing educational activities with the necessary resources (material, labor, financial, information); e) planning and selection of the best projects of educational innovations (innovations) and control over its development; f) creation of special groups of management and control over innovation activities in the field of education at all stages.

Innovative marketing in education ensures the effectiveness of the educational system and educational institutions in the market of innovations in education, aimed at forming or identifying demand for educational services in order to best meet market demands and the needs of society. Innovative marketing is based on the use of new ideas for educational services and technologies that best contribute to achieving the goals of the education system and individual educational institutions.

Innovative marketing in education is a function of innovation management in education. It begins with the search for new ideas for educational services and technologies that can best meet existing and potential demand with their subsequent materialization and commercialization, and ends with the stage of saturating the life cycle of innovation. Carrying out marketing researches is necessary for the purpose: studying a conjuncture of the market of educational services; identification of inquiries, tastes, and preferences of consumers of educational services; forecasting the dynamics of demand for educational innovations; developing a marketing strategy for innovation in education, etc.

The purpose of innovative marketing in the field of education is to achieve the final practical result of innovation. It is focused on: gaining a certain market share of educational innovations in accordance with the long-term goal for which the innovative project was developed; integrating research, production, and marketing activities into the educational management system; the long-term perspective, which requires marketing research, obtaining on their basis innovations that ensure highly efficient economic activity in the field of education, adapting to the requirements of potential consumers of innovation in education with a simultaneous targeted impact on their interests.

The means and tools for innovation management in education are belong to the *innovations of scientific and technological progress*. These may include: a) use

of information technologies in the process of innovation management of the education system (including – HEI as a subject of the higher education system): information and innovation management, as well as innovation marketing; b) organization of distance learning – implementation of distance courses (disciplines, subjects from the curriculum), automated control of students' knowledge (testing), teleconferences and Internet conferences and seminars based on online information technologies, software platforms such as Blackboard, etc.; c) use of information technology in the educational process: hybrid method of educational activity, learning web design and the use of IT technology in professional activities, including e-business, automation of research and design, automation of decision-making and production processes, information technology in business, management, marketing, etc.; d) organization of distance learning courses according to the scheme: invitation of foreign specialists – teachers of foreign HEI for teaching (reading) introductory (instructional) lectures → distance learning of the discipline (course) → remote 3-4 intermediate tests in the presence of a dean's representative → conducting the final exam according to the course (subject) - remotely, in the presence of the dean (deputy dean) → remote assessment → enrollment (entry) of the assessment in the electronic record book (transcript) of the student; e) the use of the latest methods and technologies in the implementation of universities and other HEI and research institutes of basic and applied research; search, comprehension, and dissemination of new knowledge; design and construction of new equipment; development and transfer of new advanced technologies; implementation of R&D results for local (local), regional and national socio-economic innovation development; f) creation and launch of new spin-off and startup companies by research business universities.

Innovative activities in the field of higher education, science, educational, scientific, and cultural services have a socio-economic essence, combines a set of organizational, economic, and social actions aimed at creating a knowledge society with the innovation-oriented type of economy. Such innovative activity is associated with the formation, capitalization, and commercialization of intellectual products – knowledge, technology, educational and scientific services, etc. and is one that should develop faster, contributing to real reform and renewal of education according to new requirements, demands, and challenges of society and time. One of its most important components is the innovative activity of entrepreneurial universities, which is essentially “academic” or university entrepreneurship, characteristic of the new capitalist environment – “academic capitalism”.

*Information technologies and information management* in higher education and science are the most important components of means and tools for innovation management in education. It is the distance learning methods and online learning technologies implemented with the help of the Internet that allowed all of humanity to maintain the possibility of

communication and created the conditions for communication during the COVID-19 pandemic. Specialists of the higher education system, science and engineers, and technologists in a short time created and implemented innovative methods of online communication and online management, which saved the world economy and helped the world community to overcome the problems with COVID-19 and recover.

New types of innovation in higher education and science caused by global changes, are emergency and force majeure circumstances. Forced or emergency distance learning (F/EDL) is a temporary transition of teaching to an alternative mode due to crisis circumstances. This type of training is extraordinary and is characterized by the fact that: first, online learning is becoming the main type of teaching and learning, but not all teachers and students of many universities around the world are ready to constantly work on the internet remotely. Secondly, the educational and methodological support of training courses for use exclusively online has not been massively developed and implemented in the higher education system of many countries. Third, after the end of the crisis circumstances, most universities in the world will return to the usual classroom hybrid full-time and distance learning, which the vast majority of students and teachers dream of. The innovation of F/EDL lies in the instant transition from the usual form of university education, based on direct classroom face-to-face contact between teachers and students, to the remote location of students from teachers and classrooms on university campuses. In addition to an insufficiently developed educational and methodological base, a successful educational process can be hindered by students' lack of control during testing and passing exams online. New technological and methodological developments are needed to solve these problems. The main feature of F/EDL is the difference between the delivery of online courses and distance teaching (training by professors) and distance learning (studying by students) of these courses. For the successful organization of long-term online training, it is necessary to simultaneously solve problems of information and communication nature, organizational, pedagogical, and methodological nature, as well as problems of ethics and integrity in the process of independent training of students and monitoring their progress [2].

## References

1. Romanovskiy, O. O., Romanovska, Yu. Yu., Romanovska, O. O., & Makhdi, M. E. (2021) Higher education innovatics: management of innovation in the sphere of higher education and science. *Journal of Social Transformation and Education*, No. 2, Is. 2, pp. 47-76. Available at: <http://journals.theapra.org/index.php/jste/article/view/37> (Accessed 29 Aug 2022).
2. Coronavirus and Higher Education Resources (2020). *Bryan Alexander blog*, March 17. Available at: <https://bryanalexander.org/coronavirus/coronavirus-and-higher-education-resources/> (Accessed 29 Aug 2022).