



**The Implementation of Project-Oriented Management Model in the Educational
Sphere**

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ABSTRACT

Due to the purpose of entry into the world rankings of universities, there is a need for increase in management effectiveness of educational and innovative activity. With growth of changes, dynamics of consumers demand flexibility of organizational processes and structures has to grow. One of mechanisms of such transformation of the higher school is project-oriented management. Each educational, research, entrepreneurial, administrative project can be considered as the independent market product significantly raising indicators of university activity. Participants of educational process are integrated into development of projects therefore Groups of design training during study work on the solution of specific problems of customers that increases interest of business in university. The purposes of project-oriented model of university management are described, stages and results of model introduction are represented in the article. It is concluded that the internal system of a project-oriented university acquires the features of an entrepreneurial organization, according to which the main task of the organization's management is not the planning and monitoring of workers' actions, but the creation of favorable conditions for the initiative and the full support of personnel implementing projects in accordance with the strategy development.

Keywords: Project-oriented management, University, project, education programs, innovative entrepreneurial culture.



1. INTRODUCTION

In the modern world, universities are undergoing a fundamental transformation, which consists of the transition from the model of the university, which was formed in the post-Napoleon period, subordinated to the interests of science, to the so-called model of the "Third Generation University" (Vissema 2016).

If the universities of the first generation fulfilled only the educational functions, then the functions of second-generation universities were supplemented by scientific research, and in the function of the third-generation universities the entrepreneurship is also added. This transformation is caused by changes in the priorities of state policy, the scale of globalization, demographic processes. Besides, in connection with the need to enter the world rankings of universities, there was a need to improve the management of educational and innovation activities, to develop and implement measures to improve the level of competitiveness leading to the transformation of the university into an entrepreneurial organization (Bagautdinova 2016). This university is actively engaged in innovative activities, i.e. differs from traditional motivation, direction of development, readiness to transform scientific knowledge into commercial ideas, to risk (Paley & Kornilova 2014).

The advantage of project management technology is that it can be used along with the available management tools and does not require significant changes in the structure and processes of the institution. At the same time, each project can be viewed as an independent market product, which significantly improves the efficiency of the organization and qualitative indicators of the university's activities.

The main task of implementing various projects by a higher educational institution is to create conditions for:

- training of professionals for the real sector of the country's economy, able to find themselves in the labor market in any country in the world and to increase their qualification throughout life. To do this, a multi-level system with flexible internal capabilities that allows horizontal and vertical movements and that ensure the continuity of higher education programs is needed.



- increasing the volume of knowledge and the achievement of the world level of the scientific research and development through the university development as a scientific and educational center;

- development, introduction and dissemination of effective technologies, the formation of innovative entrepreneurial culture, support of innovation entrepreneurship.

Accordingly, the projects implemented at the university are divided into educational, research and business.

Among the educational projects can be identified:

- research projects - implementation of research and development aimed at solving current theoretical and practical educational problems, monitoring and marketing research when opening new specialties, specializations, etc.; the development of curricula for specialties, the definition of elective courses and electives, the definition of directions for additional education; the development of a mechanism for interaction between the educational institution and customers of educational services, etc. ;

- educational projects, on the one hand, it is the definition of effective educational technologies through which students are trained, incl. project development, development of the electronic library, development of distance learning, on the other - providing educational services (subject courses for the population, refresher courses for external and internal clients, special training programs).

The assignment of the latter activity to projects is the least obvious. From the management point of view, the process of training under the Higher Professional Education Program (HPE) has traditionally been considered as the current operational activity. Nevertheless, it corresponds to all formal features of the project: the presence of a goal, a limited period of implementation, a set of interrelated actions of project participants and the uniqueness of the result. Specific features of such a project are: long terms of implementation and direct involvement of the client in the process of providing educational services. At the same time, each graduation of students is unique, due to a special combination of resources used in the learning process, modification of a set of disciplines, the quality of basic knowledge, the characteristics of students, and so on.

- educational&organizational and structural&organizational projects that do not require large investments, but require the creation of a regulatory framework. These documents



are an integral part of the project: the correlation with the main functional points of the work plan of higher education is important in them, such as: intermediate certification, final certification, and so on; Time-management, quality, communications, human resources, supplying, risks, etc.;

- The management project aims to implement systemic changes in the management of the educational institution - the organizational structure, the distribution of functional responsibilities, monitoring, planning, monitoring, etc.

2. METHODS

The model of the K(P)FU's project-oriented control will be as follows. The Academic Council forms a strategy. The Rectorate implements the developed strategy aimed at increasing the competitiveness of the University, through project-oriented management. Projects initiated in response to customers' requests are realized within the framework of Research and educational centers (RECs) on the basis of the inter-departmental principle of interaction. The participants in the educational process are integrated into the development of projects, like tutors, consultants and executors, as a result of which the Design Study Groups work on solving specific customer problems during their studies. In the aftermath based on the results of project training, they defend course, bachelor's and master's thesis (Li, Ying 2011).

The most successful projects get into the Student Business Incubator. The team of specialists and masters that is formed in the project working process after graduating the University represents a problem-oriented "personnel division" for profile firms or a ready business team for the organization of its own science-intensive enterprise.

The proposed model for a project-oriented educational institution's team formation consists of the following elements:

1. Organizational structure analysis of the educational services field establishment, which allows identifying the directions of the change in the communications and interaction nature between the educational institution units for the horizontal links development, assess the effectiveness of the powers and responsibilities distribution between levels of management, in the creation of new organizational structures. Along with functional units (educational department, deans, accountants, cadres, etc.), new project-oriented structural units (for example, the Innovative Projects Department, the



Development Department, etc.) are created, which can function both on a permanent basis, and on a temporary (project) basis (Bonnardel, etc. 2013).

2. Development of the professional-environmental competency structural scheme and psychological characteristics of employees, which allows you to build a matrix of professional competencies in the context of the main activities directions of the educational organization and assess the breadth of the general and special staff spectrum competencies required for the successful implementation of professional responsibilities in the project (Ou, Dong. 2009).

3. Development of the educational organization personnel policy and organizational culture on the basis of the evaluation of the human resources of the projects.

4. Development of standards and regulatory legal regulation of the project teams activities (Chen, Gehrig 2013).

5. Creation of mechanisms for financing projects to optimize the educational organization economic policy.

6. Development of an information support system for project implementation. It is necessary for:

- creating and maintain up-to-date database on all phases and stages of the life cycle of the projects of the educational institution;
- introducing modern automated planning and control systems, as well as data processing and transmission facilities.

In order to obtain social and professional recognition by the university educational programs, it is necessary to improve various ways and methods of interaction with employers, including questionnaires, involving employers 'representatives in the expert evaluation of graduates' competencies, holding seminars and conferences.

The project-oriented approach is also aimed at the development of scientific research and involves the implementation of the following activities:

- the implementation of fundamental and applied research in order to achieve a world-class level;
- improvement of the R&D management system (Horak, etc. 2014);
- creation of economic societies on the basis of innovative developments of employees, post-graduate students and students;



- equipping scientific research with modern equipment and information resources;
- development to the world scientific periodicals level.

3. RESULTS AND DISCUSSION

As a result of our studies, we have developed a scientific and methodological support for the implementation of a project-oriented model for managing the educational process, scientific and commercial activities at the university (Palei & Salakhatdinova 2015). Namely, within the framework of the educational process management, the methodology for the formation of a professional module, the methodological support for the implementation of projects within the framework of group project training (GPT), including a model program, recommendations for the calculation of loans, the formation of individual curricula, examples of standard contracts for rendering Additional educational services and targeted training of specialists, methodologies for assessing the effectiveness of the GPT. The team of authors of the project developed a methodology for evaluating the effectiveness of a project-oriented management model, which includes methods for determining the organizational, economic, social effectiveness, the mechanism for selecting evaluation criteria and the evaluation procedure, the methodology for conducting a survey of different groups of respondents: students, business leaders, pre-applicants, the university management. The developed methodology for assessing the effectiveness of a project-oriented management model makes it possible to significantly facilitate the process of introducing project management in the university by identifying specific quantitative and qualitative performance indicators.

Analysis of the results of the project-oriented education was completed after defending of master's theses by master students within the project groups of 5 people. In total 50 master students were prepared within the framework of project-based learning (PBL). The survey showed that the majority of students (70%) consider PBL as a significant factor in improving the quality of vocational training. The willingness of teachers to the formation of project-oriented education 95% of undergraduates estimated as a high. 100% of undergraduates were satisfied by efficiency of interaction of students with the labor market.



To the question "How the system of PBL will help to acquire the competencies (knowledge, skills, abilities) in comparison with the traditional approach to education?" 59% of students gave an excellent rating to the project approach to learning. However, 20% of students (who gave an average rating) and 11% of the students (which gave a satisfactory rating) noted the insufficient development and usage of project approach tools in pedagogical practice.

We would like especially to draw attention to the students' assessment of the knowledge suitability gained in the project learning in their future professional activities. 68% of respondents gave an excellent rating of knowledge gained. However, the respondents noted the lack of quality of methodological support (only 29% of students are completely satisfied with its level) and organizational PBL support in high school (only 25% of students are completely satisfied with its level).

According to the results of a survey of executives of 10 companies involved in the implementation of the University project activities we have made the following conclusions. Heads of companies are skeptical about the relevance of the projects implemented in the framework of the University (46% of the respondents only gave a satisfactory response and only 13% gave a high rating).

This assessment is linked to both insufficient, in the opinion of the managers, qualification of faculty of the University. Excellent assessment of faculty qualification from the point of view of modern project approach to learning gave only 27% of respondents. From our point of view, it is more the lack of experience of teaching in the framework of this approach.

In addition, the leaders noted a very high demand for students as future professionals who have received education within the framework of PBL. This high rating was given by 40% of managers. 33% of managers also note a fairly good level of this demand. However, their opinion about the demand for students as professionals affected the level of qualification of teaching staff and lack of effective involvement of business leaders (53% of the respondents gave a satisfactory rating) in teaching students and evaluating their knowledge.

4. CONCLUSION



By results of the conducted qualitative assessment of PBL and project management in the University, we have developed the following recommendations for improving the process:

1. To pay special attention to the development of methodological tools with the aim of improving the quality of PBL with the involvement of advanced domestic and foreign experience;
2. To send the faculty of the University for professional development in teaching based on the project model of training;
3. To establish closer contact with the leaders of domestic and foreign enterprises with the aim to attract them to teaching in the framework of the modern project approach to learning and to the assessment of students' knowledge.
4. Close contact with heads of the enterprises should be carried out in the direction of attracting faculty of the University and its students to develop business projects of enterprises.
5. To establish a system of University management in accordance with the project approach, including the field of accounting. Also, special attention should be paid on distribution and control the performance of official duties in the scope of project activities and creation of working project teams.

Thus, the organizational effectiveness of a project-oriented management model is expressed in the ability to form an interdisciplinary composition of research units, to take into account the fact that some scientists are more productive in carrying out fundamental research, while others are more suitable for carrying out development and solving practical problems, with sufficient attention paid both to fundamental and applied research. With regard to economic efficiency, we note that each of the projects carries in itself both the costs and the inflow of monetary resources in the process of financing from various sources and the profits from the implementation of projects. In general, the internal system of a project-oriented university acquires the features of an entrepreneurial organization, according to which the main task of the organization's management is not the planning and monitoring of workers' actions, but the creation of favorable conditions for the initiative and the full support of personnel implementing projects in accordance with the strategy development. On the other hand, projects need



to be considered not only from the point of economic efficiency view, but also social view. The effectiveness of university projects can be expressed in the emergence of a variety of interpersonal, organizational and managerial, social effects that directly or indirectly affect people.

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