

# Rationale of Project-Oriented Management of Higher Educational Institution Project Development

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**Abstract:** *Project management, as a science, is associated with the fact that it has a pragmatic orientation and is focused on the usage of various approaches and synthesis of experience practicing in real projects. In the theoretical aspect of project management, it is necessary to focus on the correct usage of concepts and terminology. In science and practice of project management, there are different definitions of concepts such as "project management", "project", "program", "project-oriented approach." Therefore, it is extremely necessary to harmonize the usage of conceptual system in accordance with the standards and to define the essence of these concepts in reaching the goals and objectives of the thesis research.*

**Keywords:** innovative methodologies of project management, IT project management, project-oriented management, higher educational institution.

## 1. Introduction

The global trends form the challenges that accelerate the development of educational sector and create new challenges for higher educational institutions. One of these challenges in an educational environment is the transition to project management that requires the creation of project management innovative methodologies that take into account specific events, aimed at specialists training. These methodologies have to provide the higher educational institutions activities during the educational process and scientific work of educational institutions by means of innovative management tools of IT projects. The innovative key element in higher educational institutions project management methodologies is a mobile field of competence, which is developed by the global markets and challenges. The interaction of mobile fields of competence with the educational programs of higher educational institutions is based on the mechanisms of divergence. These mechanisms form the necessary harmonized competence clusters for markets that compile the actual content of the training programs. It is obvious that these clusters form the content of competent professionals training within certain disciplines.

## 2. The Main Research

Divergent methodology should form and maintain cross-reference relationships (matrices) between the field of competence and the content of the material that is taught. It will allow one to harmonize the content and means of specialists training for specific disciplines within the defined specialties, regarding the formation of their competence, focused on the market requirements. At the present-day the development stage of the educational sector of Ukraine, and the establishment and research of divergent methodologies in IT project management of higher educational institutions (HEI) represents an actual scientific problem.

Intensive globalization of the educational sector in Ukraine is connected with the active application of competency approach during the period of transition to the economy of knowledge. Thus the life cycles of educational programs renewal are being compressed, which makes applications more mobile; as well as technologies, tools, mechanisms, system management and others are quickly and significantly being complicated. And nowadays the requirements for the specialists competence are formed mostly instinctively, without being scientifically substantiated.

The analysis of the approaches of evaluation of purpose-oriented educational programs shows us that the system of university development programs is based on the performance of social impact and budget efficiency. The budget efficiency, shall imply the economic benefit for the state and local government, which is expressed in a ratio of a value of the obtained social impact and incurred costs. Thus the gap is being formed between the required level of HEI graduates competence and their actual competence, which is being developed during the educative process. This gap determines the main problem and the strategic goal of research, defined by divergence between the field of competences, which is determined by the market and the competence of HEI graduates in certain specialties. The presence of this gap significantly reduces the competitiveness of HEI graduates in global markets. Currently the processes of globalization are taking place in project and program management, yet more complex requirements are imposed for divergent methodology of project managing decisions, in the field of higher education.

Creating a competitive economy of Ukraine and ensuring high living standards for citizens requires an extensive usage of the scientific potential of the state, in creating the latest project management technologies and HEI development programs.

To ensure the effectiveness of the specialists training process,

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the reconstruction of the entire mechanism of administrative activity in the field of education should be implemented, by means of project management methodology and the HEI management activities in all institutions engaged in the specialists training.

*The objective of the research* lies in substantiating the assumption that the efficiency and the effectiveness of higher educational institutions activities depends on the project management methodology, which should form and implement training programs based on their divergence, along with the mobile field of competence and the synergetic effect of harmonization decisions, regarding the educational programs in HEI development.

According to the dictionary of ISO 9001: 2015 Standards – Quality Management System. The terms, project-oriented management (Management by Projects) represent a management approach, in which the majority of orders and tasks of the organizations production activity (also including HEI), are considered as separate projects to which the principles and techniques of project management have been applied. According to this, the term "project-oriented management" can be defined as an approach to the management of the HEI, in which the order and activity tasks have been implemented through the projects, within its development strategy [1]. We will introduce a definition series.

*Definition 1. Project-oriented management of higher educational institutions* represents an educational management style that is based on a value-oriented approach and foresees the admission of harmonized solutions from the project management team, from the perspective of higher educational institutions development strategy, in order to receive education services, (products) within the goals, objectives and orders of the MES of Ukraine.

This definition of project-oriented management gives reason, to assert that it can only be used in organizations that have already defined their strategic goals. In order to reach the goals, these organizations will implement a number of projects, with their own management activities, oriented to the methodology of project management basis. These project-oriented organizations should include educational institutions in educative sphere.

Let us distinguish the following features of some project-oriented educational institutions in educative areas, such as:

- Significant amounts of innovating knowledge, caused by the nature of the project activity, due to the typical feature of HEI uniqueness and autonomy;
- Workforce diversity, which is involved into the processes of project management and creation of its products;
- Great demand of new knowledge and experiences, that allow to make decisions under the uncertain circumstances and poorly formalized knowledge;
- Necessity to develop mechanisms for effective cooperation and coordination of ideas, exchange of knowledge and experts ideas from different subject areas.

*Definition 2. Competence* – a set of tasks, powers, rights and duties of either organization or an official, defined by the scope of their activities. These definitions are subject to the application of international standards of IPMA ICB®, IPMA OCB®.

*Definition 3. Efficiency* – individual characteristics that define the range of issues the expert is knowledgeable at and has knowledge in, appropriate behavior qualities and experience (IPMA ICB®, IPMA OCB®). Subsequently, a model will be provided, which forms the field of competencies in a project-oriented organization.

*Definition 4. Divergence* (from Latin *divergentia* – difference) in project management of higher educational institutions represents a field of clusters of competencies that characterize the density of their sources. The divergence shows how the vector field is being produced or absorbed at a given point, and determines the intensity of these processes and the differences of characteristics and properties (in the initially close groups of competencies) during the development of the HEI.

Divergence, within education and qualification characteristics of specialties qualification of higher educational institutions, is manifested in the differences of competencies features along with the development of the HEI, which is introduced to explain the origin of various professions or specializations, within a specific direction of educative process, with due consideration of the market requirements.

The conducted analysis of the state of development of some theoretical aspects and management experience of project-oriented organizations, within the field of higher education, allowed one to form the elements of the terminological research database (project-oriented management, project-oriented HEI), and also identify the unresolved scientific tasks concerning the integration theories of project management and programs, and strategic management, within the formation of divergent methodology of decision harmonization in the development of HEI.

The purpose of using the project-based approach, as a management tool, lies in reaching the strategic objectives which have been set. Combining all projects in a single strategic direction is a vital component in order to achieve success [2].

"The main thing in the manager's activities is the project. He deals with it every day and every day he faces another task of making new decisions. One should always keep in mind that the main task of the manager is making and implementing his decisions"[3].

*Definition 5. Methodology* represents a system of principles, mechanisms, models, methods and tools of HEI organization and development, likewise a doctrine of this system.

Any educational institution is identified as the project-oriented business entity in higher education area, which faces

the necessity of rational integration of strategic methods and project management.

Nowadays HEI development is impossible without strategic planning and management. These strategic goals should be reached incrementally, in a clearly defined direction towards becoming a competitive HEI.

**Definition 6.** Divergent methodology of HEI development program represents a system of principles, mechanisms, models, methods and means of activities, which produce or enhance competencies field of mobile context, based on the assessment of competencies gap clusters, within the formation of specialists training programs.

**Definition 7.** Divergent methodology of harmonization HEI decisions – a system of principles, methods and activity tools of HEI project management development, and construction of theoretical and practical activities, as well as a system doctrine, which in a wide sense, forms a necessary component of a specific competencies of a certain activity, since the latter is becoming the subject of awareness, teaching and rationalization. It is minimization of gaps in competencies that are caused by HEI, and ensuring conditions of consistency between the elements of methodologies, where all the system and methodological gaps and inconsistencies have been eliminated.

There is no such concept as a project-oriented HEI in references, so to introduce it, using the method of triads system definitions [4], let us analyze the essence of the "project-oriented organization" concept, the correlation phrase "projects and programs" stands for all the definitions. It is also appropriate to add the term "briefcase". It is connected with the fact that, substantially, project, program and briefcase have different essence, but together they take into account all possible project-based management options. The component "integrity" is represented by the term "company" that is "an organization with its own authorities", and elementality that is an "activity" with its priorities set.

### 3. Conclusion

Based on the abovementioned, one can conclude, that integrated determination of project-oriented organization, can be offered in the form of organization with its authorities, that implements activity, by means of definite priorities due to projects, and program managing and briefcases. HEI as a business entity has no significant distinctive features, therefore the abovementioned definition is entirely eligible for identifying project-oriented higher educational institution, based on its scientific intensity, concentration and new knowledge production, it is HEI that is the most important component of the scientific complex of Ukraine.

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