ABSTRACT

of the dissertation for the degree of Doctor of Philosophy (PhD)
on the specialty «6D051800 – Project management»

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THE ORGANIZATION OF EFFECTIVE STATE SYSTEM OF TECHNICAL REGULATION OF PROJECTIZED ACTIVITY IN THE REPUBLIC OF KAZAKHSTAN

General description of work. This dissertation research focuses on the study of the organization of an effective project management system, including the development of a scoring model for project selection as a tool for technical regulation of project activities, as well as an analysis of current project management mechanisms for involving stakeholders.

The relevance of the research. In the context of the message from the Head of State about a new economic model for Kazakhstan, it becomes clear that the country is striving to realize a powerful economic breakthrough. Considering this, the need to develop and implement several life-changing projects for the country that would contribute to the achievement of the Sustainable Development Goals (SDGs) regarding economic growth becomes clearly urgent.

Thus, effective results-oriented project management has the potential to become a tool that promotes business development and strengthens the country's competitiveness. The most suitable tool for regulating the necessary project activities and having the potential for scaling through a given target orientation, is the state system of technical regulation of project activities. The system of technical regulation of project activities can help harmonize the efforts of business and government to achieve strategic goals and ensure sustainable development of Kazakhstan.

However, in the context of the SDGs, despite their global support, limitations in achieving progress have been identified due to a misunderstanding of the relationship between the criteria for the success of projects being implemented and the criteria for the success of the necessary projects to achieve the SDGs. This highlights the importance of developing methods for measuring SDG achievement at the level of project success that focus on broader value creation focused on economic, social, and environmental factors. In this context, the Global Competitiveness Index (GCI) assumes particular importance, highlighting important benchmarks of “productivity”, “people” and “planet”, which can serve as a compass for future economic growth in the form of valuable accumulated data with links to the SDGs.

Accordingly, achieving the Sustainable Development Goals for economic growth (SDG 8) depends on business building relationships with society through the creation of shared value, and project management tools at the project selection level are critical to this. This tool is considered as an instrument of the system of technical regulation of project activities in the form of a scoring model for project selection. This is particularly relevant in the modern context, considering the significant social and

economic changes caused by the pandemic, which requires a rethinking of the concept of project success so that the selection method includes specific criteria for project success so that projects more effectively meet Sustainable Development Goals 8.

All the above determines the need to search for new approaches in organizing systems for technical regulation of project activities of organizations operating for the benefit of the country's development and to study a wide range of issues related to determining the current understanding of the success of projects for the future of the country, mechanisms for selecting projects and other components of effective project management systems.

Purpose and objectives of the study. The purpose of this dissertation is to develop an effective state system of technical regulation of projectized activities, including the processes of selection and evaluation of projects, focused on predicting successful projects by influencing the indicators of the global competitiveness index in the country.

In accordance with the goal, the following tasks are solved:

1) identifying the most effective ways to organize a system of technical regulation of project activities;

2) studying the concepts of success, efficiency and failure of projects and defining an expanded pool of criteria for project success;

3) determining the readiness of the Republic of Kazakhstan to create a system of technical regulation of project activities;

4) analysis of projects, with an impact on the growth of GCI indicators from 2008 to 2019;

5) determining the combination of project success levels;

6) confirmation of the impact of projects on the dynamics of GCI indicators, which were carried out using project management and have future potential;

7) development of a project selection method focused on forecasting successful projects;

8) development of an effective system of technical regulation of projectized activities;

9) identifying ways to involve stakeholders in the system of technical regulation of projectized activities and developing a roadmap for introducing the system into the structures of the Republic of Kazakhstan.

Methodology of the research. The dissertation research was carried out on the basis of a functional approach to study the integrity of the system and using the following quantitative and qualitative methods: literature analysis, observation of phenomena, accumulation and selection of facts and the establishment of connections between them, method of analogies, comparison, to study the economic essence and fundamentals of the concept of technical regulation projectized activities, a literature review to determine the evolution of the concept of project success, generalization, systematization and clarification of elements of system efficiency and visualization of processes in UML to draw up a research program; identification of environmental factors and study of conditions (resource capabilities) for creating a system in the Republic of Kazakhstan; statistical analysis, descriptive analysis – for the analysis of projects with an impact on the GCI; statistical analysis - to determine characteristic

success criteria for each group of projects and compile a combination of project success levels; system development and visualization; risk-benefit analysis to develop a stakeholder engagement plan for the system. To process statistical data, Microsoft Excel was used, for UML visualization of processes Bizagi Process Modeler, Microsoft Publisher.

The scientific novelty of the research results. The scientific novelty of the dissertation research is manifested in the development of mechanisms that help optimize project management processes and increase the success of projects within the framework of the system of technical regulation of projectized activities. The new results obtained allow for the objective inclusion of projects with an impact on the GCI into the development portfolio of the country and organizations, thereby directly influencing the implementation of economic growth in the country.

During the dissertation research, the following scientific results were obtained, which determine its scientific novelty:

1) an effective system of technical regulation of projectized activities has been organized, including methods of selection and project management.

2) the evolution of the development of the concept of project success is shown. The result is relatively new, as knowledge in this direction has been expanded;

3) projects with an impact on the GCI were analyzed for the presence of certain combinations of project success;

4) the weight of success levels in projects that have the greatest impact on the GCI was assessed to develop a method for selecting projects in the system of technical regulation of project activities;

5) a combination of criteria for successful projects was determined and a scoring model for selecting and evaluating projects was developed, which is a component of the effectiveness of the system of technical regulation of project activities;

6) proposed measures to involve stakeholders in the state system of technical regulation of project activities;

7) recommendations have been developed in the form of a roadmap for project-oriented management of the implementation of an organized system of technical regulation of projectized activities in the structures of the Republic of Kazakhstan.

The main statements for thesis defense:

1) Organization of an effective system of technical regulation of project activities: As a result of the dissertation research, an effective system of technical regulation of project activities was developed and organized, including methods of selection and project management. This system contributes to more effective project management and achievement of countries' strategic goals for SDG 8.

2) Evolution of the concept of project success: The study demonstrated the evolution of the concept of project success, considering additional knowledge and understanding in this area. This justifies the relevance and importance of developing a new approach to determining the success of projects to achieve SDG 8.

3) Analysis of the impact of projects on the GCI: An analysis of projects that have an impact on the GCI was carried out to identify certain combinations of project success. This allows us to identify key factors influencing the achievement of the country's strategic goals.

4) Assessing the weight of success levels in projects: Various levels of success in projects that have the greatest impact on the GCI have been studied and assessed. These assessments serve as the basis for developing a method for selecting projects in the system of technical regulation of project activities.

5) Development of a scoring model for project selection and evaluation: Based on certain criteria for successful projects, a scoring model has been developed, which is an important tool for the effectiveness of the system of technical regulation of project activities. This model is a tool for objective selection and evaluation of projects.

6) Implementation of the system of technical regulation of projectized activities: based on the identified readiness of the Republic of Kazakhstan to implement the system, measures to involve stakeholders in the system are proposed and a roadmap for project-oriented management of the implementation of the system of technical regulation of projectized activities for more effective functioning of the system is developed.

The contribution of the study's results. The results obtained during the dissertation research will contribute to the development of state systems of technical regulation in Kazakhstan. Conclusions on identifying projects that influence the growth of GCI of the Republic of Kazakhstan, proposals, and scientific and practical recommendations for inclusion in the system of a scoring model for project selection can be considered and used in the implementation, development and improvement of regulations for the organization of technical regulation systems, project management regulations in accordance with the national system project management. Also, these scientific results can be applied in the activities of organizations to form or adjust their strategy in relation to the focus on projects that are more effective for the country in accordance with the direction of development of science on sustainable project management. The developed system of technical regulation of project activities can be implemented according to the developed road map, creating the basis for the systemic growth of organizations and the value of projects throughout the country in accordance with government development programs. The materials contained in the dissertation work can be used in the educational process when training specialists in the following specialties: “Project Management”, “Standardization, Metrology and Certification”.

The contribution to each publication. The main provisions and results submitted for defense were reflected in 9 scientific papers, 1 of which were published in the journal with a non-zero impact factor and included in the international information resources Scopus and Web of Science, 4 - in scientific publications recommended by CQAFSHE MSHE RK, and 4 reports in the proceedings of international scientific and practical conferences.

The article “Project management system: environmental factors and assets of development processes” is devoted to the study of the main directions of scientific research regarding the need to create a system of technical regulation of project activities and determine the readiness of the Republic of Kazakhstan for this. The doctoral student's contribution consists of a review of the literature in this area and an analysis of environmental factors for creating the system. This article was written under the scientific guidance of a foreign consultant.

The article, "Essential Organizational Project Management Processes for Creating Excellent, Influential Projects," provides a comprehensive overview of the project management processes that influence the creation of influential, successful projects. In the article “The Economic Role of State Technical Regulation of Project Activities on the Path to Sustainable Development,” the doctoral student explores the economic significance of state technical regulation in the context of project activities and its impact on achieving sustainable development. The role of government mechanisms in creating a stable economic foundation for projects that promote sustainable development is emphasized. These articles were prepared and written by the author independently.

The article “Opportunities for sustainable development through the use of project management,” in which the doctoral student serves as the first author, explores the importance of the contribution of project management to the implementation of sustainable development goals. Under the scientific guidance of a domestic consultant, the connections between project management and sustainable development goals are examined. Opportunities for achieving sustainable development using project management in projects are identified.

"Integrated Governance Strategy to Enhance the Performance and the Efficiency of IT Project Management Activities" examines governance strategies to improve productivity and efficiency in project management, emphasizing the importance of an integrated governance approach to optimal performance and achievement of project goals. The contribution of the doctoral student is to conduct the survey and interpret the results obtained.

Articles in the materials of international conferences “New methods of project management of the national qualification system based on the project approach”, “Formation of a system of state technical regulation of projectized activities”, “Use of change management and project management tools to introduce changes in the economic sectors of the Republic of Kazakhstan” “Opportunities for sustainable development through the use of project management in the system of state regulation" are devoted to different approaches in the formation of the state system of technical regulation, where the doctoral student contributed to the writing of articles as an author and co-author, having studied the scientific foundations of technical regulation of project activities and interpreting the research results.

All the scientific results presented in the dissertation and publications of the PhD student were obtained by the author independently, formulating the problems proposed by domestic and foreign scientific supervisors PhD, Associate Professor Sarkambayeva Sh. G., and PhD, professor Dalcher D. within the framework of scientific consulting and thesis research supervision.