

ANNOTATION

**for the dissertation of Azhimgereyeva Altynay Bulatovna on the topic
«Development of a risk management system in the activities of higher
educational institutions of the Republic of Kazakhstan, in accordance with the
international classifier of standards», submitted for the degree of Doctor of
Philosophy (PhD) in the specialty 8D07501 – «Standardization and product
quality management»**

The relevance of the work.

The modern higher education system of the Republic of Kazakhstan operates in a dynamically changing external environment characterized by digital transformation, globalization of the scientific educational space, increasing competition, reduced budget funding and increasing demands on the quality of educational services. These factors lead to the emergence of new risks and increased risks that may negatively affect the stability and effectiveness of higher education institutions.

Currently, many higher education institutions in the Republic of Kazakhstan do not have formal risk management systems. The elements of risk management are implemented piecemeal and are not integrated into the processes of strategic operational management. At the same time, international experience shows that this is a systematic approach, which is the main tool for ensuring the sustainability, adaptation and competitiveness of educational organizations.

The formation of the education sector of the Republic of Kazakhstan originates in the new Law of the Republic of Kazakhstan «On Education», adopted on June 7, 1999. In order to implement this direction, the risk management system has become particularly relevant in 2020 due to the change in the organizational and legal form and the transition of state universities in Kazakhstan to a non-profit joint-stock company. Since that moment, higher educational institutions of Kazakhstan have been transferred to the Ministry of Education and Science of the Republic of Kazakhstan in the course of their activities on 04/19/2021. Order No. 171 is governed by the Corporate Governance code of a non-profit joint stock company in the field of higher and postgraduate education. The Code strives to ensure transparency and effective governance in society. One of its main principles is risk management, internal control and audit. In addition, the Message of the President of the Republic of Kazakhstan, K.K. Tokayev, dated September 8, 2025, notes that «In the context of the transition to an education economy, it is important to integrate the management of science, education and innovation.» This goal cannot be achieved without the introduction of effective risk management mechanisms that ensure the sustainability of the scientific and educational environment, minimize the consequences of adverse events and make rational use of university resources.

Many scientists have been engaged in their research on the problems of risk management and quality assurance of higher educational activities, in particular: Zhetpisbayeva B.A., Mukhatayev A.A., Bekmanova G.T., Bolatbayeva K.N., Sadirbekova D.K., Vimal Kumar, Dyakov D.V., Mukanova S.D., Shunkeyeva S.A.,

An A., Ylias A., Dzholdasbayeva G.K., Vishnyakova A.N., Gushin I.S., Illarionova A.V., Berg H.P., Night Ph., Raanan Y., Renn O., Milani, A., Franzoni, V., Florindi, E., Hosseini S.A., Sheehan B., Murphy F., Kia A.N., Kiely R., Khaw T. Y., Teoh A. P., Pascoe M. C., Hetrick S.E., Parker A.G., Realinho V., Machado J., Baptista L., Martins M.V.

The introduction of modern risk management techniques based on the international standards ISO 31000:2018, IEC 31010:2019 and their national counterparts ISO 31000-2020, IEC 31010-2020, will form common principles for the identification, assessment and monitoring of risks in higher education institutions, improve the effectiveness of management decisions and reduce the likelihood of critical events, and also to ensure the quality of educational services.

The relevance of the research is due to the objective need to develop a unified risk management system adapted to the specifics of Kazakhstani universities and based on international and national standards. This will improve the stability and quality of higher education in the Republic of Kazakhstan.

The purpose of the study - To develop a risk management system in the activities of higher education institutions of the Republic of Kazakhstan, based on international standards that improve the sustainability, quality and competitiveness of higher education institutions.

Research objectives:

To achieve this goal, the following tasks were set:

Analysis of the theoretical foundations of risk management and study of the current state of risk management in higher education institutions of the country;

Using existing risk analysis methods;

Development of a risk management methodology and system focused directly on the internal characteristics of the university;

Development of a draft organizational standard for risk management in higher education institutions;

Calculation and justification of the probability, consequences and cost-effectiveness of risk mitigation measures. Preparation of specific proposals for the practical implementation of the developed methodology in universities of Kazakhstan.

Object of research: Activities of higher educational institutions of the Republic of Kazakhstan.

Subject of the research: Risk management system in higher education institutions of the Republic of Kazakhstan.

Research methods: Theoretical methods (analysis of scientific literature, regulations and standards, induction and deduction, comparative analysis of international and national approaches), empirical methods (questionnaires to determine the range of risks in the university and their significance, analysis of internal documentation of the University, the "bow tie" method, as well as analytical methods (risk analysis probabilistic and statistical methods of rating calculation, risk matrix).

Scientific results within the framework of the dissertation requirements for the dissertation.

The introduction outlines the relevance of the research, substantiates the purpose and objectives of the research, outlines the provisions of scientific novelty and the foundations recommended for protection.

The first part analyzes the theoretical foundations of risk management and analyzes the regulatory and technical documentation on risk management.

In the second part, expert and graphical methods of risk determination are used, the probability and consequences of risks are determined.

In the third part, the methodology and draft standard of the organization for risk management in higher education institutions are developed, strategic, tactical and operational measures for risk management are presented.

In the fourth section, proposals have been developed for the implementation of research results in other educational institutions of the Republic of Kazakhstan.

In the fifth part, the economic efficiency of implementing a risk management system in the activities of a higher education institution is calculated and justified.

Scientific novelty of the research:

- An integrated risk management system is presented, combining methodological, organizational and economic components in higher educational institutions of the Republic of Kazakhstan.;

- The integration of international standards and national standards into the risk management model is substantiated;

- A risk management methodology has been developed at a higher education institution;

- A draft risk management organization standard has been developed that approves the risk management process at the higher education institution level.

Practical value of the dissertation research:

The developed risk management system can be used by higher education institutions of the Republic of Kazakhstan to increase the stability and quality of the educational process, minimize the consequences of adverse events and rational allocation of resources. The methodology is used in strategic, operational and tactical planning, the formation of an internal control and quality management system in higher education institutions.

The following scientific statements and results are submitted for defense:

- The results of scientific research on the identification, classification, analysis and management of risks in the activities of higher education institutions;

- the methodology of risk management in the activities of higher education institutions;

- Draft regulatory technical documentation on risk management in higher education institutions;

- Checklists for risk management in higher education institutions.

Personal contribution of the author. The author developed and planned the course of scientific and practical work within the framework of the thesis topic, completed the tasks set, applying risk management methods, which allowed to

obtain reliable results. The author used international standards on risk management for university integration, independently analyzed the research results and formed reasonable conclusions for each stage of the work and the results of the entire dissertation. The objectivity, reliability and accuracy of the results have been repeatedly verified, errors and uncertainties have been identified. In the course of his scientific work, the author studied and analyzed a large number of theoretical and practical sources, collected survey results, conducted research on the initial state of risk management in higher education institutions, and developed a methodology for identifying, identifying, evaluating, monitoring, and managing risks in higher education institutions of the Republic of Kazakhstan. The author has implemented the research results into the activities of a higher educational institution, prepared scientific articles, and developed a methodology and draft standard for the organization.

Approbation of work results

The results of the dissertation were presented at international scientific and practical conferences (MNPC): MNPC «Seifullin Readings -18(2)»: «XXI Science of the XXI century – the era of transformation» (2022, Astana); MNPC «Seifullin Readings – 19» dedicated to the 110th anniversary of M. A. Gendelman (2023, Astana); MNPC «Problems of Food security2 (EPFS 2023) (2023, Gorki); MNPC «Global Science and Innovation 2023: Central Asia» (2023, Astana); MNPC «Prospects and trends in the development of modern higher education» (2023, Astana); MNPC «Priority directions for the development of science and education» (2024, Penza); MNPC 2Quality Management Technologies SMIs-2024» (2024, Moscow); MNPC «To the 130th anniversary of S. Seifullin» (2023, Astana); MNPC 2Scientific Research 20252 KHGPC (2025, Penza).

By general publications:1 article in a journal included in the Scopus database, 3 articles in publications recommended by the Committee for Quality Assurance in Science and Higher Education of the Ministry of Science and Higher Education of the Republic of Kazakhstan, 4 articles in international scientific and practical conferences (ISTC), 5 articles in republican scientific and practical conferences (RNPC) and 2 copyrights rights.

The structure and scope of the dissertation

The text of the dissertation is printed on a computer in A4 format on 195 pages, includes 23 tables, 27 figures, consists of an introduction, 5 chapters, conclusions, appendices, and a list of references containing 111 literary sources.