

ABSTRACT

to the dissertation entitled

«Development of a Management Model for Ensuring Gender Equality in the Labor Market of the Republic of Kazakhstan»

submitted for the degree of Doctor of Philosophy (PhD)
in the educational program 8D04101 – «Management»

Relevance of the doctoral dissertation topic. In the context of accelerated global changes, the labor market is one of the key indicators of a country's socio-economic development, reflecting the level of human capital utilization, the quality of institutions, and the effectiveness of public policy. At the same time, gender equality in employment and labor is recognized by the international community not only as a fundamental human right but also as an important factor of sustainable economic growth, increased productivity, and innovative development. Documents of the International Labour Organization, the World Bank, and the Organisation for Economic Co-operation and Development emphasize that reducing gender gaps in labor force participation, wages, and access to managerial positions contributes to a more efficient use of labor potential and enhances the economy's adaptability to structural changes.

Amid increasing complexity in the structure of employment, the importance of gender equality is growing, as it determines the degree of inclusion of different population groups in new forms of work, technological sectors, and management processes. Contemporary studies indicate that countries with higher levels of actual gender equality demonstrate more stable economic growth, higher labor productivity, and fewer structural imbalances in the labor market.

For the Republic of Kazakhstan, this issue is of particular importance. Despite formally established equal rights and opportunities for men and women, persistent gender disparities remain in the actual functioning of the labor market. Women constitute a significant share of the economically active population; however, their participation in high-income and technologically advanced sectors remains limited. According to the Bureau of National Statistics of the Republic of Kazakhstan, the gender wage gap remains at an average of 26–30%, while women's access to managerial positions is still restricted, with their share among managers fluctuating around 38–40%. These indicators reflect the presence of both horizontal and vertical gender segregation.

An additional factor exacerbating disparities is the territorial heterogeneity of the labor market. In a number of regions of Kazakhstan, women's opportunities in formal employment and career advancement are significantly lower than national averages due to the sectoral structure of the economy, a high level of self-employment, and limited labor mobility. As a result, persistent regional disparities in access to economic opportunities are formed, reinforcing systemic imbalances.

In response to these challenges, Kazakhstan is implementing a number of strategic initiatives, including the Concept of Family and Gender Policy until 2030, the

National Action Plan for Gender Equality for 2024–2027, and the Labor Market Development Concept for 2024–2029. However, analysis shows that the effectiveness of these documents' implementation remains limited. Gender priorities are often declarative in nature, weakly integrated into active labor market policy instruments, and existing monitoring mechanisms do not provide sufficient analytical and managerial feedback.

Thus, an institutional contradiction emerges: despite the presence of strategic documents and formally established principles of gender equality, there is no comprehensive system of managed mechanisms and tools for evaluating effectiveness, which hinders the transition from declarative policy to model-oriented governance.

Gender imbalances in the labor market have not only social but also direct economic consequences. They reduce the efficiency of human capital utilization, limit the development of innovative and high-tech sectors, and contribute to shortages of qualified personnel. In this context, gender inequality should be considered not as an isolated social issue, but as a systemic constraint on economic development.

The scientific problem of the study lies in the fact that, despite the existence of formally established gender policies and strategic documents, there is no integrated, scientifically grounded model in the Republic of Kazakhstan for managing gender equality in the labor market that would allow for quantitative measurement, forecasting, and targeted regulation of gender processes in employment.

The author's position is that gender equality in the labor market should be viewed not as a declarative social goal, but as a managed socio-economic outcome formed through institutional, educational, and managerial mechanisms capable of responding to quantitative changes and modeling results.

Under these conditions, the study aimed at developing a model for managing gender equality in the labor market of the Republic of Kazakhstan is relevant, scientifically significant, and practically demanded. It is focused on bridging the gap between the formal declaration of equality principles and actual outcomes, developing evidence-based employment policy, and forming sustainable governance mechanisms that contribute to improving the efficiency of human capital utilization and the competitiveness of the national economy.

The aim of the study is to develop and provide a scientific justification for a model of managing gender equality in the labor market of the Republic of Kazakhstan, based on a theoretical and conceptual analysis, empirical diagnostics of the existing management system, and the adaptation of international approaches to national socio-economic and institutional conditions.

To achieve the stated aim of the dissertation, the following **research objectives** have been defined:

- To reveal the theoretical and conceptual foundations of managing gender equality in the labor market by clarifying the content of gender equality as an object of state and institutional governance.

- To systematize regulatory and institutional mechanisms for ensuring gender equality in the labor market, including national and international approaches to their implementation.

- To conduct an empirical analysis of the existing system for managing gender equality in the labor market of the Republic of Kazakhstan, taking into account legal, institutional, and organizational aspects.

- To assess the scale and structural characteristics of gender disparities in the labor market of the Republic of Kazakhstan based on statistical and structural analysis.

- To identify key factors and institutional constraints affecting the functioning of the gender equality management system in the labor market under current socio-economic conditions.

- To develop and theoretically substantiate a model for managing gender equality in the labor market aimed at improving the effectiveness of state and institutional influence.

- To substantiate and propose practical mechanisms for transforming and improving the system of managing gender equality in the labor market based on the developed model.

The object of the study is the labor market of the Republic of Kazakhstan as a socio-economic system in which gender employment relations are formed and implemented.

The subject of the study is the management processes, mechanisms, and tools for ensuring gender equality in the labor market of the Republic of Kazakhstan, including the institutional, economic, and organizational aspects of their implementation.

The methodology of this study is based on a comprehensive interdisciplinary approach to analyzing gender equality in the labor market, due to the multifactorial nature of the phenomenon under study and its systemic impact on the country's socio-economic development. Gender equality in employment is shaped by macroeconomic processes, institutional conditions, labor market functioning mechanisms, the regulatory and legal environment, as well as persistent socio-cultural norms.

Accordingly, the study relies on a combination of theoretical approaches, including human capital theory, institutional economic theory, modern concepts of gender economics, public administration theory, and the concept of sustainable development. This theoretical framework made it possible to examine gender equality not only as a social category but also as a managed economic process influencing employment, labor productivity, and the quality of human capital.

The theoretical basis of the study consists of the works of domestic and international scholars in the fields of labor market analysis, gender policy, social stratification, human capital management, and econometric modeling. The methodological foundation is based on the principles of systematicity, scientific objectivity, logical consistency, and a holistic approach to processes determining gender differences in employment, wages, and career advancement. This approach

ensured a conceptual understanding of the nature of gender inequality and the development of tools for its quantitative analysis, as well as the formulation of management decisions.

The study employed the following methods of theoretical analysis: systemic, institutional, comparative, logical, and structural-functional. These methods made it possible to identify the key factors shaping gender disparities, determine the relationships between the macro-, meso-, and micro-levels of the labor market, and analyze the impact of these relationships on gender equality. Methods of scientific generalization and analytical modeling were of particular importance, allowing the integration of various statistical and regulatory data into a unified research framework.

A significant part of the study is based on the application of economic and statistical methods, including time series analysis, structural and index analysis, calculation of relative indicators, and data normalization procedures using the min–max method. This ensured the comparability of indicators over time and made it possible to develop integrated assessments of gender equality.

The key research instrument was econometric modeling aimed at quantitatively assessing the impact of institutional, educational, and managerial factors on the level of gender equality in the labor market. Based on normalized data, an integrated index of gender equality in the labor market was developed, reflecting the dynamics of balance between men and women in terms of labor force participation, formal employment, wages, and participation in management. The econometric model made it possible to empirically confirm the managed nature of gender processes and to identify priority areas for government intervention.

The study utilized modern tools for data processing and visualization, including Excel Power Query, Canva, and the Python programming language (NumPy, Pandas, and Matplotlib libraries). These tools enabled the systematization of statistical datasets, data cleaning, the creation of analytical tables and graphs, and improved the accuracy and reproducibility of calculations. The information base of the study consists of official statistical data from the Bureau of National Statistics of the Republic of Kazakhstan for 2015–2024, regulatory and strategic documents in the field of employment and gender policy, as well as international reports and databases from the International Labour Organization, the World Bank, the United Nations Development Programme, the Organisation for Economic Co-operation and Development, and UN Women. The use of comparative international sources made it possible to align national trends with global standards and adapt best practices to the conditions of the Republic of Kazakhstan. At the time of preparing the dissertation, due to the lack of complete and systematized official statistical data on the key labor market indicators for 2025, the data for 2024 were used as the most recent full reporting period for the analysis.

The use of an integrated methodology ensured the comprehensive nature of the study, made it possible to identify the structural causes of gender inequality in Kazakhstan's labor market, and to develop substantiated recommendations for improving the system of managing gender equality in the national economy.

The scientific novelty of the dissertation research lies in the development and scientific substantiation of a model for managing gender equality in the labor market of the Republic of Kazakhstan, based on the integration of theoretical and conceptual provisions, empirical diagnostics of the existing management system, and the adaptation of international management approaches to national socio-economic and institutional conditions.

The scientific novelty of the research is specified in the following provisions obtained personally by the author:

1. The scientific content of the category «management of ensuring gender equality in the labor market» has been refined and is interpreted as a purposeful, multi-level, and institutionally organized process of managerial influence by the state and other actors on employment conditions, mechanisms, and outcomes aimed at reducing gender disparities. Unlike existing approaches, gender equality is conceptualized not as a normative goal but as a manageable outcome of the labor market system functioning, which forms the theoretical and conceptual foundation of the management model.

2. An integral index of gender equality in the labor market of the Republic of Kazakhstan (GE_LM_t) has been developed, based on the aggregation of normalized indicators of women's labor force participation, the share of women in formal employment, the gender wage gap, and women's representation in managerial positions. Unlike existing international indices (WEF, UNDP, EIGE), the proposed index is adapted to the national statistical base and institutional context, which ensures its applicability in public administration and monitoring systems.

3. An econometric model has been developed and tested to assess the impact of manageable factors (institutional and legal environment — WBL_t , women's educational potential — $EDUf_t$, representation in management — $LEADf_t$) on the dynamics of gender equality in the labor market (measured by the GE_LM_t index). The results indicate that women's representation in management ($LEADf_t$) is statistically significant, while institutional and educational factors have a directional and explanatory role. The model makes it possible to identify statistical relationships between gender disparities and manageable factors.

4. A management model for ensuring gender equality in the labor market has been developed based on macro–meso–micro levels, ensuring the coherence of strategic, institutional, and organizational regulatory mechanisms. Unlike existing program-based approaches, the model is aimed at systemic transformation of governance architecture and the formation of sustainable feedback mechanisms.

5. A comprehensive empirical diagnosis of the gender equality system in the labor market of the Republic of Kazakhstan has been conducted, based on the comparison of regulatory frameworks, institutional mechanisms, and actual socio-economic outcomes. As a result, structural and institutional constraints that reduce the effectiveness of state gender policy have been identified, and the need for a transition to model-based management has been substantiated.

Key provisions submitted for defense:

1. Gender equality in the labor market of the Republic of Kazakhstan is a manageable socio-economic outcome formed under the influence of institutional, educational, and managerial factors, which justifies its consideration as a systemic object of public and institutional governance.

2. The integral gender equality index in the labor market (GE_LM_t) is a reliable tool for comprehensive assessment and monitoring of gender disparities, ensuring comparability across time, regions, and sectors of the economy.

3. Gender disparities in the labor market of the Republic of Kazakhstan have a manageable nature, and the analysis shows that women's representation in management ($LEADf_t$) is a statistically significant factor, while the institutional and legal environment (WBL_t) and educational potential ($EDUf_t$) act as directional and explanatory factors.

4. Effective achievement of gender equality in the labor market is possible through the implementation of a multi-level (macro–meso–micro) management model that ensures coherence of strategic, institutional, and organizational regulatory mechanisms and the formation of sustainable feedback loops.

5. The system of managing gender equality in the Republic of Kazakhstan is characterized by structural and institutional constraints manifested in the gap between formally established principles and actual socio-economic outcomes, which necessitates a transition to model-based and evidence-based governance.

6. The reduction of gender disparities in the labor market has a statistically significant impact on labor productivity and economic growth indicators at the macroeconomic level, which empirically confirms the relationship between manageable factors and gender equality.

The theoretical significance of the dissertation research lies in the development and refinement of the theoretical and conceptual foundations for managing gender equality in the labor market of the Republic of Kazakhstan. The study develops and substantiates an original model for managing gender equality, in which gender equality is considered not as a normative goal but as a managed outcome of the labor market system, formed under the influence of institutional, economic, and managerial factors.

The dissertation refines and expands the conceptual and categorical framework for analyzing gender processes in employment, including the interpretation of gender equality management as an institutionally organized multi-level (macro–meso–micro) process. This made it possible to integrate public regulation, institutional practices, and organizational decisions in the labor market into a unified theoretical framework.

A significant contribution to labor market management theory is made through the development of a system of indicators and an integrated gender equality index in the labor market (GE_LM_t), which allows gender equality to be conceptualized as a measurable and manageable socio-economic category. The application of these tools expands the analytical capabilities of gender economics and labor economics theory.

At the theoretical level, the necessity of transitioning from an approach based on fragmented and declarative gender policy measures to a management model based on the principles of mainstreaming, inter-level coordination, and evidence-based analysis of the effectiveness of managerial interventions in ensuring gender equality is substantiated.

The developed model demonstrates how institutional, regulatory, educational, and managerial factors shape gender outcomes in the labor market.

Overall, the obtained results expand scientific understanding of the nature of gender inequality, the mechanisms of its reproduction, and the possibilities for managerial influence, deepening the theoretical basis for the formation and implementation of employment policy with consideration of gender aspects in the context of labor market transformation in the Republic of Kazakhstan.

The practical significance of the dissertation research lies in the possibility of applying the obtained conclusions, the developed model, and methodological tools in the labor market management system and in the implementation of state gender policy in the Republic of Kazakhstan.

The developed model for managing gender equality in the labor market, which includes a system of controllable factors, the integrated GE_LM_t index, and a multi-level (macro–meso–micro) approach, can be used by public authorities in strategic planning, monitoring, and evaluation of the effectiveness of employment and gender equality programs.

The research results and proposed mechanisms can be applied:

- in adjusting state strategies and programs in the field of employment and social policy;
- in developing regional programs to reduce the gender gap;
- in the activities of analytical centers and development institutions when preparing forecasts and analytical reports;
- in corporate governance practices and the implementation of ESG approaches aimed at expanding women's participation in the economy.

The particular practical value of the study lies in proposing a system of indicators and a methodology for their integration, enabling regular monitoring of the state of gender equality in the labor market. The use of the integrated GE_LM_t index ensures comparability of results across regions, economic sectors, and time periods and can serve as a tool for evidence-based budgeting and program planning.

The formulated practical recommendations make it possible to identify the most vulnerable groups in the labor market, determine key points of managerial intervention, and develop comprehensive projects aimed at human capital development, increasing women's economic activity, and reducing structural gender imbalances.

The obtained results can be used in the educational process in training specialists in labor economics, public administration, and social policy, and can also serve as a theoretical and practical basis for further scientific research in the field of gender equality management.

The practical results of the dissertation correspond to the priority directions of scientific development in the fields of socio-economic development, public administration, and sustainable human capital development in the Republic of Kazakhstan. They are also aligned with key strategic and program documents of the Republic of Kazakhstan, including the Concept of Family and Gender Policy until 2030, the National Action Plan for Gender Equality for 2024–2027, the Labor Market Development Concept for 2024–2029, as well as the Sustainable Development Goals (SDGs), in particular SDG 5 «Gender Equality» and SDG 8 «Decent Work and Economic Growth». The model, indicators, and mechanisms proposed in the dissertation can be used in the implementation of state policies in employment, gender equality, and human capital development.

Approbation of research results. The main results of the dissertation research were tested at the State Institution “Department for the Coordination of Employment and Social Programs of the East Kazakhstan Region.” The approbation was carried out within the framework of applied analytical work related to the development of proposals for improving gender equality in the labor market of the Republic of Kazakhstan. The author’s model of gender equality management was used as a basis for expert discussions and for the preliminary gender-based assessment of the effectiveness of labor and social policy at the regional level.

In addition, the results of the dissertation research were implemented into the educational process of the Kazakh-American Free University and used in the development of methodological guidelines for the course “Labor Market Economics.” The methodological guidelines are aimed at improving students’ theoretical and practical training in the areas of gender equality management in the labor market, employment, and the analysis of socio-economic processes.

The results and recommendations of the dissertation research were submitted to the Ministry of Labor and Social Protection of the Population of the Republic of Kazakhstan as practical proposals for ensuring gender equality and improving labor market management mechanisms. An official response was received from the Ministry expressing its willingness to consider the submitted materials and openness to cooperation in this area.

Publications. The main results of the dissertation research are reflected in 13 scientific publications, including: 1 article in a Scopus-indexed journal (53rd percentile), 8 articles in journals 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, 3 papers in the proceedings of international scientific and practical conferences, and 1 article published in the Russian Science Citation Index (RSCI) electronic library.

The structure of the dissertation research consists of an introduction, three chapters, a conclusion, a list of references, and 6 appendices. The total volume of the work is 156 pages. The study includes 15 figures, 27 tables, and 6 formulas, as well as a complete list of 142 references used in the research.