

ANNOTATION

to a thesis research of Mukhamediyeva Gulzada Minalovna on a topic: “Development of social infrastructure of single-industry towns: factors, directions and methods of evaluation”, presented for the degree of doctor of philosophy (PhD) majoring in 6D050600 – «Economics»

Relevance of the research topic. Currently, the main advantage of single-industry towns is the quantity and quality of human resources. In these circumstances, the issue of creating conditions that ensure the livelihood of the population and human development becomes a priority.

In his ordinary message to the people entitled “Growth of welfare of Kazakhstan citizens: increase of income and quality of life” the President of the Republic of Kazakhstan drew attention to the fact that issues of education, health, quality and availability of housing, comfortable and safe living concern every Kazakh family. In this regard, the government should review budget expenditure priorities with a focus on the social sector, security and infrastructure.

In view of this, the importance of the social infrastructure of single-industry towns is determined by the impact on the socio-economic development of the city as a whole and the ability to develop human potential. No single-industry town can ensure its development without investing in the development of social infrastructure. To develop strategies for the socio-economic development of single-industry towns it is necessary to use the results of the analysis of a comprehensive assessment of the formation and development of social infrastructure, with emphasis on elements that require improvement and additional funding. In this regard, the development of appropriate methods is relevant for local governments.

It is possible to conduct a comparative analysis of single-industry towns on this basis, among which to identify strong and weak elements in the development of individual elements of social infrastructure, to take measures for the modernization of socially important facilities.

In these circumstances, the work aimed at the necessity of creating specific tools to assess the objects of social infrastructure, single-industry towns, development of the strategy to support the implementation of government programs and improving the levels of living of the population is relevant.

Level of scientific development of research topic. Questions on the functioning and development of single-industry towns’ social infrastructure were studied in this dissertation. These questions were earlier considered in the works of many domestic and foreign scientists. Scientific works of scholars as Anne-Marie May, John Garner, Hardy Green, Crab Tony, Nurlanova N.K., Gaisina S.N., Meldekhanova M.K., Turgel I.D., Myrzaliyev B.C., Idiris S.S., Taizhanov L.T., Shedenov U.K., Ilyina I.N., Lybovniy V.Y., Kuznetsova G.U. devoted to the study of problems of development of single-industry towns, were crucial for the writing of this thesis. Such scientists as I.S. Antonov, Borodatova L.U., Bolshakova Y.A., Vazhenin S.G., Yesengeldin B.C., Murzatayeva G.K., Seitalinova A.S., Sinelnikov A.G. and others also worked on the questions related to the development of social infrastructure.

However, despite the large number of scientific articles covering the development of single-industry towns, and studies addressing to the issues of social infrastructure, there are not enough scientific works aimed at identifying trends in the development of social infrastructure of single-industry towns.

The goal of the research topic is the justification of scientific-practical proposals for a comprehensive assessment and development of the social infrastructure of single-industry towns with the study of theoretical and methodological basics of its formation.

To achieve the goal, it is necessary to solve the following tasks:

- to determine the value and specific features of the functioning of single-industry towns;
- to systematize the factors influencing the development of social infrastructure of single-industry towns;
- to develop a methodology for assessing the level of development of social infrastructure of single-industry towns;
- to substantiate the role of the state in the regulation of social infrastructure of single-industry towns;
- to analyze the current situation in the development of social infrastructure of single-industry towns;
- to conduct a comprehensive assessment of the potential development of social infrastructure of single-industry towns;
- to provide with the main directions of improving the social infrastructure of single-industry towns;
- to determine the possibility of adapting the concept of "Smart city" in the development of social infrastructure of single-industry towns.

Object of the thesis research is the activity of institutions of social infrastructure of single-industry towns in Karaganda region.

Subject of the thesis research is organizational-economic relations arising in the process of formation and development of social infrastructure of single-industry towns.

Scientific novelty of research:

- theoretical principles, revealing the essence of the concept of “single-industry towns” are refined and deepened, as well as the author’s definition of this concept is suggested;
- factors, influencing the development of social-infrastructure of single-industry towns are systematized with the help of which the possible risks and consequences are identified;
- during the generalization of various indicators, the author has developed the general integrated index of the development of social infrastructure of single-industry towns, which can be used as a tool for analysis and evaluation of the development of social infrastructure of single-industry towns;
- on the basis of the factor and indicative analysis the characteristic tendencies of development of social infrastructure of single-industry towns of

Karaganda region are defined and the algorithm of determination of directions of development of social infrastructure of single-industry towns is developed;

- the mechanism of integration of social infrastructure taking the advantage of the structural components and technical conditions for the performance of their interaction was developed in the framework of the project "Smart city".

Main provisions to be defended:

- the definition of "single-industry city" proposed by the author;
- the classification of factors affecting the development of social infrastructure of single-industry towns by economic, demographic, socio-political, technical, natural, organizational and legal characteristics;
- the index of overall integrated development of social infrastructure of single-industry towns;
- the adapted algorithm for the determination of the directions of development of social infrastructure of the city;
- structural and service scheme of integration of social infrastructure.

The dissertation research is a completed research of practical importance aimed at the development of social infrastructure of single-industry towns. The following conclusions were made according to the results of the dissertation research:

1) In the international practice, while defining the concept of "single-industry town", it was found that the concepts of "City of one industry", "City of one company", "City of miners", "City of textiles" and "Industrial city" are applied at the same time. The formation of a single-industry method depends on economic and political processes, as well as on the geographical location of the city. The concept of the "City of one company" is associated with a large enterprise operating in the city, which has built social infrastructure along with industrial facilities. In foreign practice, along with the general concept of a "single-industry town", there is the concept of "special cities", defining its specialization. Many views were formed in the theoretical development of the concept of "single-industry town". Scientists are studying this concept with the use of economic-geographical techniques (typological, historical, territorial, complex), forms of specialization (single-social town, single-industrial town, single-central town), monoregional characteristics (geographical approach, economic approach, architectural approach) and monofunctional bases (quantitative, qualitative). During the analysis of the definitions of the concept of "single-industry town" by various scientists and specialists, we have identified the characteristics of this concept (the dominance in the activities of the city of one industry (or city-forming enterprise). The city-forming enterprise provides not only economic, but also social services, while the revenue part of the city budget depends on the financial condition of the city-forming enterprise. Limited employment of the city population, the city infrastructure (social, transport, engineering, etc.) also depends on the city-forming enterprise. Also, the author's definition was proposed to this concept: a single-industry town is a legally formed settlement on the basis of a

city-forming enterprise that has the status of a city and performs economic and social services.

2) Systematization of factors affecting the development of social infrastructure of single-industry towns, leads us to the following conclusions:

- on the one hand, social infrastructure is a part of the social sphere of the state (society) in its economic significance. On the other hand, in terms of entry of market participants into economic and financial relations, it is part of the entire economic infrastructure as a branch of production of socially important goods and services;

- it is necessary to use the sectoral feature of the classification for the development of the social infrastructure of single-industry towns: housing and communal services; education; health care; social assistance and social security; household services; culture, sports and tourism; transport and communications. The application of the sectoral feature of the classification of social infrastructure for single-industry towns is characterized by the following features: it implies economic relations between single-industry towns and its citizens; is used for a reliable description of types of activities; it is the basis for making strategic management decisions;

- factors affecting the development of social infrastructure of single-industry towns can be grouped by economic, demographic, socio-political, technical and natural, organizational and legal characteristics. This banding gives opportunity to identify possible risks and consequences during the factor analysis of the assessment of the level of social infrastructure.

3) Methodological problems of the evaluation of development of social infrastructure of single-industry towns are poorly covered in scientific research of scientists. In general, scientific works consider the most important reserves of the efficiency of the development of single-industry towns to increase the mobility of labor resources, business and the implementation of new successful projects of innovative nature. The methodological approaches developed by scientists are used to assess the development of the social infrastructure of the regions and include the following approaches and procedures: the process of optimization of targets, the method of integration and construction of aggregate indicators, comparative analysis. To make effective management decisions on the development of social infrastructure, it is proposed to use the method of integrated assessment, including the method of assessing the economic conditions affecting the development of social infrastructure, the method of assessing the level of development of social infrastructure based on the welfare of the population, the method of assessing the availability of social infrastructure for the population of single-industry towns. The methodology of complex assessment of results of functioning and development of social infrastructure of company towns consists of three stages of analysis: the collection and processing of statistical materials necessary for the calculation of the individual indicators; the calculation of the total integrated index of social infrastructure development; the banding of single-industry towns according to the biggest indicator of development of social infrastructure.

4) According to the data from the Statistics Committee of the Ministry of National Economy of the Republic of Kazakhstan dated January 1, 2018 27 cities with the population of 1,648 million people or 15,8% of the total urban population of the Republic of Kazakhstan are single-industry towns. Most of the single-industry towns are located in the Central-Eastern macro region, as these cities concentrate most of the production potential of Kazakhstan. There are no single-industry towns in Kyzylorda and North Kazakhstan regions, while in Karaganda region there are 8 single-industry towns. State regulation of social infrastructure of single-industry towns consists of a set of actions of legal, program-target, financial and public-private partnership and it is necessary to analyze the current state of the needs of citizens in social infrastructure to determine their effectiveness; the development of social infrastructure should be comprehensively assessed in order to attract additional financial resources; the use of new technologies is necessary for the effective and convenient functioning of social infrastructure sectors for citizens.

5) The reflection of the factors provided in the sub-chapter 1.2 of this thesis is seen in the latest results of the analysis of the current state of the social infrastructure of single-industry towns in Karaganda region:

- *economic factors*. Single-industry towns in Karaganda region have different potential and contribution to the development of the region. More than 40% of the population of the whole region lives in single-industry towns and 69.94% of industrial products are produced in Karaganda region;

- *demographic factors*. In 2017, 11203 unemployed people were registered in single-industry towns. City-forming enterprises of single-industry towns are not able to create enough jobs due to the development of modern technologies and automatization of business processes. In this regard, the working-age population of single-industry towns is actively moving to large cities. Over the past 5 years, there has been an increase in the number of students in secondary schools in cities such as Temirtau (+3016), Zhezkazgan (+1538) and Shakhtinsk (+781). Annual student growth may lead to an increase in the number of three-shift schools;

- *technical and natural factors*. The deterioration and unsatisfactory condition of social infrastructure (houses, kindergartens, schools, hospitals, etc.) and engineering (water supply, sewerage, heat and electricity networks) require investments;

- *social and political factors*. The low level of wages of employees of social infrastructure objects does not reach the average monthly salary of the regional level, which led to a shortage of specialists, that is, to the imbalance of supply and demand of labor;

- *management and legal factors*. There is a shortage of places in kindergartens and a lack of projects on the foundation of pre-school organizations with elements of public-private partnership. Only some elements of digital technology (DamuMed, EduMark) have been implemented at social infrastructure facilities (education, health).

6) The following conclusions were made based on the results of the implementation of a set of methods for the evaluation of social infrastructure of single-industry towns:

- there are some restrictive conditions for the development of social infrastructure due to the significant differentiation of economic conditions in many single-industry towns;
- there is an insufficient level of development of social infrastructure, which prevents the realization of its social services, reduces the quality of life of the population in most of the single-industry towns;
- at the present time, single-industry towns have limited opportunities to meet the key, fundamental needs of the population, as evidenced by the lack of specialists for social infrastructure due to low wages;
- improvement of market economic conditions will not lead to an immediate improvement in the level of social infrastructure development - it is a regulated process (i.e. depends on the strategy and socio-economic policy of the region).

7) The following strategic directions are proposed for the improvement of the living conditions and human development of the population of single-industry towns:

- it is necessary to set the budget, allocated for the social infrastructure, in accordance with the amount of per capita funding of the population or one of the applicants of the single-industry towns;
- to create an effective mechanism for the use of public-private partnerships in the field of social infrastructure;
- to expand the opportunities of the digitalization of services for the objects of social infrastructure.

These directions and measures can serve as a basis for the development of social policy for the development of social infrastructure programs. In this regard, we propose an algorithm for determining the development of social infrastructure, which gives an opportunity to take the characteristics of each single-industry town into account and contributes to the development of social infrastructure:

- analysis of the current situation of single-industry towns defines the main factors influencing the development of social infrastructure;
- determines the types of single-industry towns (by economic conditions and the level of development of social infrastructure, the level of balance, by provision with resources from the budget);
- takes the structural features of the development of social infrastructure of the single-industry towns into account to create conditions for the formation of trends in demographic processes; efficient use of labor resources; ensuring optimal housing, communal and living conditions of the population; preservation and improvement of public health; rational use of leisure of citizens;
- defines the tactical and strategic directions of the development of social infrastructure of single-industry towns, such as the launch of a system of statistical monitoring and monitoring of the necessary provision of social infrastructure by

institutions; development of standards and rules for the operation of social infrastructure facilities;

- develops management decisions and measures to influence the development of social infrastructure of single-industry towns: the adoption of economic measures to stimulate investments into social infrastructure; coordination of activities and projects of construction and reconstruction of facilities.

8) At the present time, holding "Zerde" has developed and presented the concept of Smart city for all regions of Kazakhstan. The concept will allow to unify approaches to the implementation of Smart city in the regions of Kazakhstan, as well as to create management experience for the use of best industry practices and solutions. Separate spheres of activity, closely associated with the development of social infrastructure of single-industry towns of Kazakhstan in receiving medical care, education, social services, utilities, transportation in the city, were highlighted in the concept. Single-industry towns, willing to become "smart" should work in all these areas, but should not exclude alternative points of development, considering them in the light of long-term prospects and consequences of implementation. Practical benefits of the concept:

- improvement of the health of the population by improving the quality of health care and medical services available to the population;
- creation of prerequisites for individualization of educational courses, formation of the system of continuous education and career growth;
- development of the housing sector in the single-industry towns;
- creation of conditions for the safety of every person, whether it is personal safety, or housing, or business.

Theoretical significance of the dissertation is to justify a new approach to the problem of complex assessment of the development of social infrastructure of single-industry towns. The theoretical results of the study can be used by the relevant legislative and local executive bodies in the process of regulating the activities of social infrastructure. Some results of the dissertation can be used in the educational process during the development of training courses "Regional economics", "City economics".

Practical significance of the research results. The paper contains specific recommendations for the improvement of the development of social infrastructure of single-industry towns of the Republic of Kazakhstan, based on a comprehensive analysis of the theoretical and practical aspects of the issue.

Also, the results of the research can be used by specialists of the relevant departments, University professors and other interested people as a source of scientific and practical information.

Theoretical and methodological basis of the research. The methodological basis of the research is system, process and matrix approaches, logical, statistical, expert, comparative and structural methods.

The theoretical basis of the dissertation research is formed by the fundamental works of Kazakhstan and foreign scientists devoted to the management of socio-

economic systems, the peculiarities of the development of single-industry towns and regions, as well as legal acts of the Republic of Kazakhstan in the field of state regulation of social infrastructure. The information base includes statistical reports of ministries and departments of the Republic of Kazakhstan, akimat of single-industry towns of Karaganda region, their research and information materials of non-governmental organizations.

Implementation of the main provisions and results of the research. The main provisions and results of the study were discussed at international scientific conferences: "Innovative directions of integration processes in Eurasia" (Kazakhstan, Astana, 2017), "Problems and prospects of economic development and management" (Czech Republic, Prague, 2017), "Market and production efficiency-15" (Kazakhstan, Kokshetau, 2018). The results of the thesis are included in the activities of the akimat of Abay of Karaganda region.

The structure and the scope of the research. The thesis consists of an introduction, three chapters, conclusion, list of references and appendixes. The main text of the work consists of 112 pages, 39 tables and 7 figures.