Formation of supporting points for production growth based on diversification of the regional industry

Baxtiyar Ruzmetov[1], *Sherzod* Ruzmetov[2], *Shakhzod* Bakhtiyarov[1,*], *Zulfiya* Dzhumaeva[3] and *Khusan* Juraev[4]

[1]Urgench State University, Kh.Alimdjan street, 14, 220100, Urgench, Uzbekistan
[2]RANCh University of Technology, Khonka street, 26, 220100, Urgench, Uzbekistan
[3]Bukhara Institute of Engineering and Technology, K. Murtazoeva street, 15, 200100, Bukhara, Uzbekistan
[4]Termiz University of Economics and Service, Farovon street, 4-b, 190100, Termiz, Uzbekistan

Abstract. The article describes production opportunities based on diversification of industry in Khorezm region and ways to form "growth points" in economic sectors of the region. Taking these circumstances into account, “growth points” aimed at the development of industrial products in the Khorezm region were identified, and conclusions and proposals regarding the implementation of these measures were highlighted. In the first stage, the modernization and technical re-equipment of existing production facilities (Bagat Textile JV, Cotton Tex LLC, Kobo Tex LLC, Darital Tex LLC, Uztex Shovot JV and cotton ginning enterprises, Khazarasp branch of GM) are determined. The second stage (industrial) defines the implementation of promising republican and regional projects with the involvement of foreign capital, funds from enterprises and the population on the basis of deep processing of local raw materials and resources, the introduction of advanced domestic and world achievements in the field of engineering and technology, including nanotechnologies and nanoproducts. In the third stage (innovative) the introduction of advanced technologies for the production of goods with various functional properties (fire-resistant, bioactive, etc.), ensuring increased comfort and attractiveness of products, the formation of an innovative infrastructure based on close cooperation between business, entrepreneurship, universities, research institutes of the Khorezm region and Tashkent for the purpose of carrying out scientific, technical and innovative developments were identified.

1 Introduction

In the context of globalization of economic processes and increased competition, the territorial aspects of the country’s economic development are of particular importance. At the same time, “the main priority direction for the development of territories is the diversification of industry, which involves reducing dependence on raw materials,

* Corresponding author: shohzod.baxtiyorov@urdu.uz

developing industries with a high share of added value and the development of high-tech industries". World experience shows that "under the conditions of a new technological paradigm, the transformation of the industrial sector of the country's economy helps to strengthen competitive advantages and create opportunities for innovative renewal" [1]. Under these conditions, one of the competitive advantages of countries is the ability to reproduce high technologies, deepening the processes of specialization and diversification of industry. Thus, "the production of high-tech products in the world is mainly dominated by industrialized countries (USA, Japan, Germany, UK and France)," which account for about 80 % of world exports of high-tech products. At the same time, a positive trend of intensifying high-tech production is observed in newly industrialized countries, such as East and South Asia, China (15 % of world exports of high-tech products)" [2].

In the modern world, a qualitative transformation of the economy aimed at creating competitive advantages and diversifying production is given special attention as part of the implementation of the large-scale objectives of the Sustainable Development Goals. Leading international organizations (UNIDO, European Bank for Reconstruction and Development, World Bank, UNDP) are conducting analytical research in this area, which is largely due to the growing demand for promoting technology development, increasing economic competitiveness and ensuring shared prosperity. A cross-country review of the processes of specialization and diversification of production shows that "at different stages of economic development, different processes of production location prevail, i.e. in countries with a low level of GDP, the effectiveness of diversification is noted due to the deepening of production processing, the introduction of technology and knowledge, and in countries with a high level of GDP, the effect is created by specialization due to the transition to a new technological structure" [3].

Despite the positive results, characterized by economic growth and structural transformations, there are still problems associated with ensuring the effective use of resource potential, the introduction of innovative technologies and increasing the competitiveness of territories. In the ongoing "Strategy of Action for Five Priority Areas of Development of the Republic of Uzbekistan for 2017-2021," one of the key objectives was "to ensure comprehensive and balanced economic development of the regions, it was pointed out that the differentiation in the level of socio-economic development of the regions was reduced by expanding the scale of modernization and diversification of the territorial economies, accelerated development of relatively lagging areas and cities, primarily by increasing their industrial and export potential" [4].

The 22nd goal in the development strategy of New Uzbekistan emphasizes "continuing the implementation of industrial policy aimed at ensuring the stability of the national economy, increasing the share of industry in the gross domestic product and increasing industrial production by 1.4 times. Further development of cooperation and increasing the level of localization in the automotive industry with an increase in production volume by 1.4 times and its export by 2 times" [5].

In this regard, the process of industrial diversification becomes most relevant from the point of view of reducing certain risks, increasing the competitiveness of industry, maintaining social and food stability of the regions and the country as a whole.

Based on the above, in the regions of Uzbekistan with favorable conditions and prerequisites for balanced development, the priority direction is structural transformation and diversification of production, promoting the efficient use of natural resources, material, production and scientific and technical potential of the territories, eliminating imbalances and inter-territorial differences in the reproductive structure of the economy. Thus, a new strategy was developed for broader development of economic sectors [6].

1.1 Literature review

Thus, the territorial aspects of economic transformation and diversification of production are studied in the works of such foreign scientists as A. Thompson [7], M. Porter [8], A.A. Tatuev [9], O.A. Larionova [10] and others. They determine directions taking into account the achievement of socio-economic development of the regions:

- development of territorial and production complexes;
- comprehensive socio-economic development of regions;
- increasing the competitiveness of regions.

The issue of improving the mechanism for stimulating innovative activity in industrial enterprises has been widely studied by Uzbek and foreign scientists. In this regard, we can point out the scientific works of foreign scientists such as L. Krkos, H.P. Lankes, K. Meyer, T. Moran, H. Thomann and others [11]. Also, the issue of stimulating innovation processes was studied by such scientists as Isabel Buil, Sara Catalan, Eva Martinez, Pascal Payet, Jorge Meija Morelos, Vincent Block, Renate Wesselink, Aldrich Stjunka, Ron Kemp [12], Oliver Masakure [13].

In the works of CIS scientists such as A.G. Ivanenko [14], R.A. Fatkhutdinov [15], N.M. Tsisarova [16], A.A. Bovin [17] also studied theoretical and methodological issues related to the management of innovation processes.

In general, scientific, methodological and practical approaches to regional development, developed by T.M. Akhmedov [18], B. Ruzmetov [19], A.M. Sadykov [20] and other domestic scientists, represent a valuable scientific and practical basis for conducting research on the diversification of regional industry.

When classifying holy places according to the degree of significance among the population and geographic location, the following points are taken into account: holy places of republican, regional, district significance and the scale of mahalla or village.

2 Data and methodology

2.1 Data

By diversifying the territory's industry, various goals can be achieved: overcoming the raw material orientation of the economy, balanced development of territories, access to new sources of resources, advanced knowledge and experience, innovation, formation of competitive advantages in the domestic and foreign markets, conquering new market segments (domestic and external), ensuring the level and quality of life of the population, especially rural ones (Fig. 1).

On the other hand, production diversification often develops on the basis of specialization formed in the region, which is the basis of the territory’s competitive advantages. Thus, the competitive advantages of the region due to the specialization of production become the leading tool for determining points of production growth. Thus, the factors of diversification and specialization of production, closely intertwined with each other, include the possibility of expanding traditional and non-traditional types of economic activity for the territory through the development of related and auxiliary industries, production of intermediate and finished products.

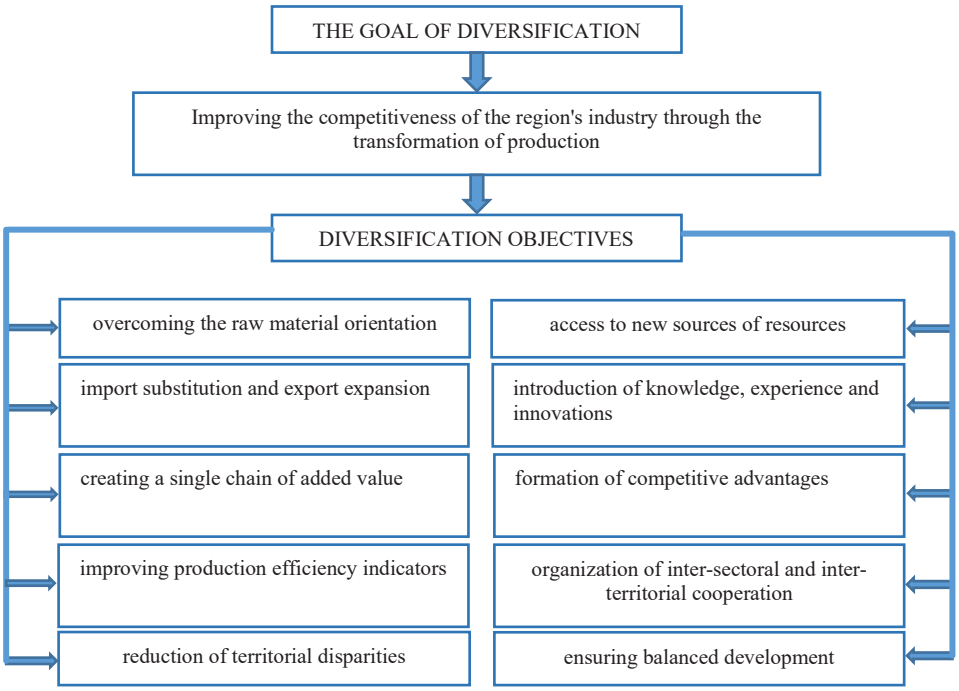

Fig. 1. Classification of goals and objectives of industrial diversification in the region. (Developed by the authors).

Despite the gradual growth of industrialization of the economy, in some regions an agricultural orientation remains. Improving the institutional design of agricultural producers is also important for strategic planning. Private farmers are leaders in the production of certain crops and in the corresponding sown areas [21]. The share of industry in GRP in 5 regions (Jizzakh, Namangan, Samarkand, Surkhandarya, Khorezm regions) of the country does not exceed 15 percent, and the volume of industrial production per capita lags behind the national level by almost two times.

It is proposed to evaluate the diversification of the region's industry in three main areas:

- sectoral diversification (3 indicators), characterizing the degree of difference in the development of economic sectors, the ability of territories to develop new types of products;
- technological orientation (3 indicators), which makes it possible to characterize the products produced in the regions by the degree of readiness (extraction and processing, raw materials and non-raw materials), purpose (industrial and technical purposes and for consumer consumption, food and non-food products) and the introduction of modern technologies (low- , medium- and high-tech goods and services);
- geographic (3 indicators) orientation of industry, characterizing the production capabilities of regions to conquer foreign markets, allows us to assess the export orientation of products and the ability to export non-commodity goods (Fig. 2).

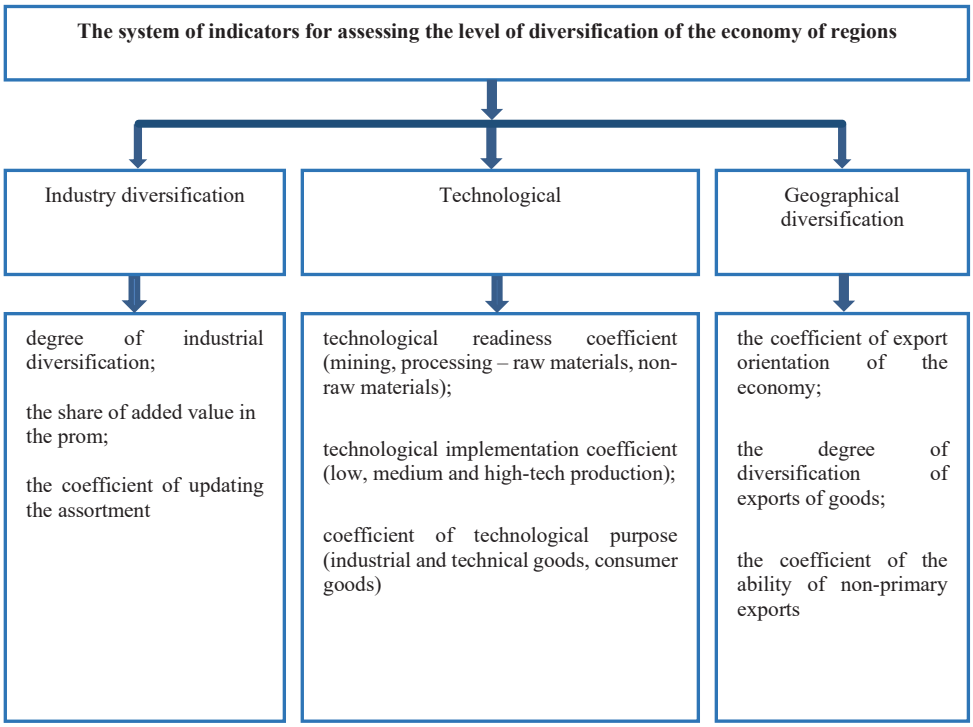

Fig. 2. System of indicators for assessing the level of industrial diversification of regions (districts and cities). (Developed by the authors).

The industry of the Khorezm region of the Republic of Uzbekistan is characterized by an insufficient level of diversification, which is due, on the one hand, to the orientation of industrial production towards the production of cotton fiber, and, on the other, to the weak implementation of investment projects based on the advantages of the territory. In general, the concentration and specialization formed in the region, being a guideline for industrial growth, determine the degree of **diversification of industrial production** [22].

Meanwhile, in connection with the implementation of investment projects and the creation of new non-traditional industries for the territories, there is a tendency to increase the degree of diversification of production. However, in order to expand production, the region faces the acute problem of resolving a number of issues:

- low competitiveness of products and the lack of marketing work to study the needs and demand for local goods lead to the accumulation of excess balances of unsold products and affect the financial condition of enterprises;
- insufficient infrastructure, characterized primarily by limited energy and water resources, which constrains local initiatives;
- the underdevelopment of the production infrastructure, in particular the transport system, affects the increase in transport costs, production costs and is a serious obstacle to increasing the competitiveness of manufactured products;
- demographic and personnel factors, characterized by a high level of outflow of highly qualified specialists outside the region and the republic, as well as a low level of activity and entrepreneurial literacy of the population, together cause an acute shortage of specialists, ranging from highly qualified process engineers to professional specialists.
- weak cooperation between large enterprises, small businesses and universities leads to weak development of the industrial sector.

The degree of technological development also acts as a major factor in structural changes in industry. The industry of the Khorezm region is characterized by a relatively low concentration of fixed assets (0.9% of the total value of fixed assets in the country's industry). At the same time, an assessment of the degree of modernization indicates an improvement in the technical condition of production assets, which is associated with the priority direction of capital investments for the development of new ones, as well as technical re-equipment and reconstruction of existing production facilities.

As a result, thanks to relatively high rates of return on capital with production growth, the introduction of advanced equipment and technologies, as well as more intensive growth and renewal of machinery and equipment, along with the Tashkent, Andijan, Samarkand and Namangan regions, the Khorezm region took a leading position in the degree of modernization of production .

Today, the territorial imbalance of industry is expressed by a high concentration of production in the city of Urgench (27.7%), Khanka (13.6%), Shavat (9.2%) and Bagat (9.0%) areas, which account for more 55% of regional production. The activity of large industrial facilities on their territory of manufacturing industry of republican significance has led to a relatively high level of production (the level of industrial production is calculated as the ratio of per capita production of industrial products of the territory to the regional parameter).

Thus, the effective use of the region's advantages (agricultural potential, labor resources, developed tourism potential) will enable the growth of regional production of food, construction goods, repair of agricultural machinery, directly by small enterprises. The presence of large enterprises in the region, while solving the problems of technical and technological renewal in accordance with international standards, and the formation of a highly developed infrastructure can become prerequisites for the creation on their basis of "growth points" in the form of industrial clusters and the accelerated development of related industries.

The implementation of the direction to create growth reference points will be carried out in stages (table 1).

Table 1. Stages of formation of reference points of industrial growth in the Khorezm region of the Republic of Uzbekistan. (Developed by the authors).

Period	Type of activity	Measures
I – stage (2022-2023)	organizational	- modernization and technical re-equipment of existing production facilities (Khorezm Tex, Uztex Shovot, Hazarasp branch of GM Uzbekistan and Shavat Bearing Plant); - formation of appropriate production, transport, market, engineering and social infrastructure; creation of an experimental production center on the basis of Urgench State University (Urgench) for the purpose of close cooperation with business; - introduction into the production process of expanding localized production based on the use of local raw materials, including other regions of Uzbekistan; - assessment of the need for qualified personnel with knowledge of modern equipment and advanced technologies, materials science and technology of nanomaterials and nanosystems, energy and resource-saving processes, information and computing systems, as well as their training in local colleges, universities, universities of the capital and neighboring regions.
II – stage (2024-2026)	industrial	- implementation of promising republican and regional projects with the involvement of foreign capital, funds of enterprises and the population on the basis of deep processing of local raw materials and resources;

		- introduction of advanced domestic and world achievements in the field of engineering and technology, including nanotechnology and nanoproducts; - training of human resources in advanced organizations of the country and abroad on a contractual basis
III – stage (2027-2030)	innovative	- introduction of advanced technologies for the production of goods with various functional properties (fire-resistant, bioactive, etc.), providing increased comfort and attractiveness of products; - formation of innovation infrastructure on the basis of close cooperation of business, entrepreneurship, universities, research institutes of the Khorezm region and the city of Tashkent in order to conduct scientific, technical and innovative developments.
Term	**like activity**	**measures**
I – stage (2022-2023)	organizational	- modernization and technical re-equipment of existing production facilities (Khorezm Tex, Uztex Shavat, Khazarasp branch of General Motors Uzbekistan and the bearing plant); - formation of appropriate production, transport, market, engineering and social infrastructure; creation of an experimental industrial center on the basis of Urgench State University (Urgench) for the purpose of close interaction with business; - introduction into the production process of expanding import-substituting industries based on the use of local raw materials, including in other regions of Uzbekistan; - assessing the need for qualified personnel with knowledge of modern equipment and advanced technologies, materials science and technologies of nanomaterials and nanosystems, energy and resource-saving processes, information and computing systems, as well as their training in local colleges, universities, universities in the capital and neighboring regions.
II – stage (2024-2026)	industrial	- implementation of promising republican and regional projects with the attraction of foreign capital, funds from enterprises and the population based on deep processing of local raw materials and resources; - introduction of advanced domestic and world achievements in the field of engineering and technology, including nanotechnologies and nanoproducts; - training of personnel in leading organizations of the country and abroad on a contractual basis
III – stage (2027-2030)	innovative	- introduction of advanced technologies for the production of goods with various functional properties (fire-resistant, bioactive, etc.), providing increased comfort and attractiveness of products; - formation of innovative infrastructure based on close cooperation of business, entrepreneurship, universities, research institutes of the Khorezm region and the city of Tashkent in order to carry out scientific, technical and innovative developments.

Based on this table, the key growth points of the industrial sector in the Khorezm region can be identified, and as a result it can be diversified.

2.2 Model and methodology

Methods of strategic planning, monographic observation, content analysis, systematic and comparative analysis, expert assessment and statistical analysis, scenario method, and econometric modeling were used.

To determine the forecast values of products based on the diversification of production and the formation of growth reference points, the scenario method is used.

For this, two scenarios are proposed: an inertial scenario, designed for the Khorezm region's own financial sources and resources, the accepted pace of economic reforms without tangible government support from outside;

Modernization scenario, designed for strong financial government support, external and internal sources of development, and the active deepening of economic reforms.

Research methods have established that the most effective is the modernization scenario of industrial development of the Khorezm region. At the same time, the implementation of systemic transformations in the economic sectors of the region, the development of export production and joint ventures will require the necessary amount of capital investments.

The most important thing is that the modernization scenario has social advantages, first of all, significantly greater opportunities for involving labor resources in social production.

Economic cycle model According to the inertial scenario due to objective and subjective reasons related to shortcomings of own resources and sources of financing the development program, slowdown in economic reforms due to increased social and economic tension in the region, weak inflow of foreign investment and other problems.

To determine the forecast values, econometric calculation models were used.

3 Results

In general, the development of industry in the region, taking into account the projects and proposals provided for in this strategy, converges with the **modernization scenario** for the development of the region. Accelerated development of the industry will be due to ensuring the competitiveness of manufactured products, increasing the share of products using high technologies, diversifying production based on more efficient use of potential reserves and growth opportunities, favorable conditions of demand in the foreign market for manufactured products and increasing investment. At the same time, the growth of industrial production will increase 8.5 times with an average annual increase of 14.5 %, the share of industry in GRP will be 21 % in 2030 г. (table 2).

Table 2. Prospects for growth in industrial production in Khorezm region up to 2030. (Developed by the authors).

Options	*Forecast, average for the period*			*Production growth, times*		
	2022-2023	*2024-2026*	*2027-2030*	*2022-2023*	*2024-2026*	*2027-2030*
Modernization scenario						
Growth rate of industrial production compared to previous. year, %	113.9	114.3	114.5	2.1	4.3	8, 5
Share of industry in GRP, %	15.0	19.0	21.0	1.6	1.3	1.2
Business as usual scenario						

Growth rate of industrial production compared to previous. year, %	112.0	109.0	107.5	1.9	3.0	4.3
Share of industry in GRP, %	10.0	9.5	9.0	1.1	1.0	1.0

For comparison, the strategy evaluates the results of the development of industrial production according to **the inertial scenario**, taking into account the continuing development trends of recent years. At the same time, previously taken measures will ensure a 4.3- fold increase in production (until 2030) with an average annual increase of 9.8 %. The share of industry in GRP will be 9.0 % in 2030 г.

4 Discussion

As a result of the research and analysis, the following proposals were developed:

- involvement of low-power and inactive industries by upgrading and expanding the previously established production base, as well as providing industrial and social infrastructure;
- diversification of production based on the deepening of product processing to produce the final finished product [23];
- formation of competitive regional production due to the wide introduction of modern equipment and technologies, know-how, etc. [24];
- attraction of investment resources, including funds from the population and foreign partners, for the development of regional production [25];
- stimulating the creation of branded products, facilitating their promotion both in the consumer market of the region and abroad; creating an information environment that promotes the development of cooperative ties between industry enterprises and the development of related industries [26];
- improving the quality control of products based on the introduction of ISO standards at enterprises will increase the competitiveness of manufactured goods; conducting constant monitoring of domestic and foreign markets of goods, changes in market conditions in order to increase the advantages of the industry [27];
- providing technical and consulting assistance in the modernization of production, selection of investment and innovative development projects, providing all kinds of benefits and preferences to exporting enterprises; assistance in finding foreign partners and investors [28];
- development of constructive partnerships between domestic manufacturers and developers with global industrial groups [29, 30];
- strengthening the role of R & D in the development of production technologies.

Effective use of existing reserves, potential and competitive advantages will allow expanding production capacities, developing new non - traditional medium-and high-tech industries for the territory, which, in turn, will increase the industrial potential of the Khorezm region.

Taking into account the potential and competitive advantages of the Khorezm region, the prerequisites are identified, the main **directions of long-term development** of the region are determined:

- The formation of production growth points is based on a developed production base with the involvement of high technologies, educational and human resources, and resource potential (electrical engineering in Urgench, textiles in Bagat and Shavatdistricts, and mechanical engineering in Khazarasp districts.

- The development of related industries and auxiliary industries, mainly in less developed and resource-rich territories, based on the designated growth points will allow combining the production process into a single value chain and, thereby, expand the range of manufactured goods and diversify local industry (localization of production in Bagat, Khanka, Yangiaryk, Shavat, ready-made clothing and knitwear products - in the cities of Urgench, Khiva, Koshkopyr, Yangiaryk, Khanka, Khazarasp and Urgench) (Table 3).

Table 3. Promising areas of regional industrial development Khorezm region of the Republic of Uzbekistan. (Developed by the authors).

Name of the city and districts	Creation reference points of growth reference points	Development of related industries	Implementation of inter-regional projects	Implementation of inter-territorial projects
Urgench	city	▲	○	:
districts:				
Khiva		Δ	—	
Bagat	—	—	●	□
Gurlen		Δ	●	□
Koshkopyr		Δ	○	□
Khazarasp	▲	▲	○	
Urgench		Δ	●	■
Khanka		—	●	
Shavat	Δ	—		■
Yangarik		Δ	○	□ □
Yangibazar		Δ	●	■

Creating growth reference points:
— - to the greatest extent
Δ - to a lesser extent

The development of related industries:
— - to the greatest extent
Δ - to a lesser extent

Implementation of interregional projects:
● - to the greatest extent
o - to a lesser extent

Implementation of inter-territorial projects:
■ - to the greatest extent
□ - to the least extent

- Implementation of interregional projects aimed at providing resources and infrastructure for the territories and activating the entrepreneurial initiative of the local population on the basis of close cooperation with other regions of the Republic of Uzbekistan (the Republic of Karakalpakstan, Navoi and Bukhara regions), which have distinctive competitive advantages. Interregional cooperation will give an impetus to the accelerated development of mechanical engineering, production of chemical products, and construction materials (Gurlen, Yangibazar, Yangiaryk, Koshkopyr, Urgench, Khanka, Bagat, and Khazarasp districts).

- Implementation of inter-territorial projects aimed at ensuring the catch-up growth of lagging and insufficiently resource - and infrastructure-provided territories, allowing to reduce disparities in the level of development.

Drawing on thepotential of districts with raw materials, production, labor and other potential, as well as traditions in the development of handicrafts, will ensure a balanced development of territories and overcome the inter-district gap in the level of production (Khiva, Gurlen, Koshkopyr, Urgench, Yangiaryk, Yangibazar).

5 Conclusion

As a result of the research, priority areas for diversification of the region's industry were identified:

In turn, the placement of related and auxiliary industries requires solving a number of problems:

1. Studying the possibilities for the development of industries along the value chain, starting from the processing of raw materials to the production of finished products that meet the requirements of the foreign market, will allow us to create new types of goods and diversify production.
2. In order to increase the competitiveness of products, it is necessary to stimulate the creation of branded products with the sale of goods not only within the region, but also outside it, as well as participation in exhibitions, fairs, etc.
3. Introduction of new generation technologies when mastering the production of goods; carrying out work to expand the use of domestic developments of energy-efficient technologies for the production of high-quality products.
4. Conducting a comparative assessment of the availability of relevant specialists and highly qualified (marketers, managers, etc.) personnel with the enterprises' need for them; if necessary, prepare them at base enterprises.
5. Formation of an appropriate production infrastructure, characterized by favorable access to roads and railways, to work on the issue of creating specialized terminals in order to increase transportation, optimize delivery schemes for construction materials, their transshipment and storage.
6. Creation of a data bank of investment projects based on local initiative, potential investors, carrying out consistent work on the feasibility study of projects, linking with spatial factors of the territorial and integrated development of the region for the long term.
7. Increasing the potential of the local processing industry (with the involvement of large enterprises, small businesses and home-based work) based on the rational use of available raw materials to saturate the local and interregional consumer goods market;
8. Creation of a data bank of highly qualified specialists for their involvement in the process of creating production facilities, the use of economic levers to return qualified local specialists from other countries and regions.
9. Stimulating the organization and activities of small industrial zones and technology innovation parks to enhance the development of small businesses and the development of local commodity producers, mainly in rural areas, using inactive industrial sites and empty procurement organizations with the formation of a centralized system of water, gas and energy supply.

Thus, the compact placement of small enterprises, auxiliary and service facilities has the advantage of creating economic and organizational conditions for the stable functioning of small businesses, reducing production costs and ensuring employment of the population, rapid dissemination and adoption of modern technologies and ideas, solving infrastructure issues and establishing cooperative connections.

References

1. Framework of the medium-term program for 2016-2019. Electronic source: https://www.unido.org/sites/default/files/2015-05/idb43_9r_0.pdf. United Nations Industrial Development Organization. pp. 8-11.
2. V.N. Shimov. Structural transformation of the country's industrial complex: imperatives and directions for implementation. Journal: Sociology, **1,** 9-16 (2010).

3. Workshop on Economic Diversification in the CAREC Region. UNIDO. https://www.carecinstitute.org/wp-content/downloads/2019/05/CI-KS-Seminar-Diversification-S2-Frank-Introduction-UNIDO-RU-Mongolia-16May-2019.pdf (2019)
4. Decree of the President of the Republic of Uzbekistan dated February 7, 2017 PD-4947 "On the strategy of action for the further development of the Republic of Uzbekistan." https://lex.uz/ru/docs/3107042.
5. Decree of the President of the Republic of Uzbekistan dated January 29, 2022 PD-60. On the development strategy of the new Uzbekistan for 2022-2026.
6. B. Ruzmetov. Regional economics. Experience, problems, effectiveness of integrated development (Tashkent, "FAN", 2002).
7. A. Thompson. Strategic management: concepts and situations. Textbook for universities. (Moscow: Infra-M, 2000).
8. M. Porter. Competition (translation from English). (Moscow: Williams, 2002).
9. A.A. Tatuev et al. Diversification in industry: concept, essence, stages of development and problems of application. Bulletin of the Altai State Agrarian University, **1 (123),** 175-182 (2015).
10. O.A. Larionova. Regional diversification and its impact on production development. Organizer of Production, **4,** 90-94 (2009).
11. H.P. Lankes and A.J. Venables, "Foreign Direct Investment in Economic Transition: the Changing Pattern of Investments." Economics Transition, **4(2),** 331-347 (1996).
12. V. Blok, R. Wesselink, O. Studynka, R. Kemp. Encouraging sustainability in the workplace: a survey on the pro-environmental behavior of university employees! Journal of Cleaner Production, **106,** 55-67. URL: https://www.sciencedirect.com/science/article/pii/S0959652614007914.
13. O. Masakure. The effect of employee loyalty on wages. Journal of Economic Psychology, **56,** 274-298 (2016). URL: https://www.sciencedirect.com/science/article/pii/S016748701530009X.
14. A.G. Ivanenko. Innovative management: textbook. (Moscow: KNORUS, 2009).
15. R.A. Fatkhutdinov. Innovative management: Textbook for universities. 6th ed. (Sankt-Peterburg: Peter, 2008).
16. M.N. Tsitsarova. Innovative management: textbook. allowance (Ulyanovsk: Ulyanovsk State Technical University, 2009).
17. A.A. Bovin, L.E. Cherednikova, V.Ya. Yakimovich. Innovation management in an organization: textbook. allowance. (Moscow: Omega-L, 2006).
18. T.M. Akhmedov. Regulation of the territorial organization of productive forces and integrated development of the regions of Uzbekistan. (Monograph. Tashkent: Fan, 1992).
19. B. Ruzmetov. Regional economics. Experience, problems, effectiveness of integrated development. (Tashkent, "FAN", 2002).
20. A.M. Sadykov. Fundamentals of regional development: theory, methodology, practice. Monograph. (Tashkent: Iktisod-moliya, 2005).
21. B. Ruzmetov, D. Matyakubova, D. Ibadullaev. Strategic directions for sustainable development of the agricultural sector in the regions of Uzbekistan. Journal of Critical Reviews, **3,** (2020).
22. D. Khudaiberganov. Assessing and improving mechanisms for increasing the efficiency of the market for goods and services. Journal of Critical Reviews, **1,** (2020).

23. G. Pittaluga, A.Reghezza, E. Seghezza. Reconsidering the modernization hypothesis: The role of diversified production and interest-group competition. European Journal of Political Economy, **65**, 101929 (2020). doi: 10.1016/j.ejpoleco.2020.101929
24. Y. Tang, N. Xia, L. Vagra, Y. Tang, X. Hua, Q. Li. Sustainable international competitiveness of regional construction industry: Spatiotemporal evolution and influential factor analysis in China. Journal of Cleaner Production, **337,** 130952 (2022). doi: 10.1016/j.jclepro.2022.130592
25. H. Wu. Evaluating the role of renewable energy investment resources and green finance on the economic performance: Evidence from OECD economies. Resources Policy, **80,** 103149 (2023). doi: 10.1016/j.resourpol.2022.103149
26. A. Rzepka. Innovation, inter-organizational relation, and co-operation between enterprises in Podkarpacie region in Poland. Procedia Manufacturing, **30,** 642-649. (2019). doi: 10.1016/j.promfg.2019.02.091
27. J. Pang, N. Zhang, Q. Xiao, F. Qi, X. Xue. A new intelligent and data-driven product quality control system of industrial valve manufacturing process in CPS. Computer Communications. **175,** 25-34, (2021). doi: 10.1016/j.comcom.2021.04.022
28. O.A. Vilpoux, J.F. Gonzaga, M.W.G. Pereira. Agrarian reform in the Brazilian Midwest: Difficulties of modernization via conventional or organic production systems. Land Use Policy, **103,** 105327 (2021). doi: 10.1016/j.landusepol.2021.105327
29. F. Beyers, H. Heinrichs. Global partnerships for a textile transformation? A systematic literature review on inter- and transnational collaborative governance of the textile and clothing industry. Journal of Cleaner Production, **261,** 121131. (2020). doi: 10.1016/j.jclepro.2020.121131
30. L.N. Ogolevoy. *Innovative management.* (Moscow: INFRA-M, 2008)