

THEME: FACTORS OF DEVELOPING INDUSTRY

IN THE REGIONS

CONTENT

INTRODUCTION

CHAPTER- I. METHODOLOGICAL BASES OF THE DEVELOPMENT OF INDUSTRIAL SECTORS IN THE REGION IN THE CONDITIONS OF THE MODERNIZATION OF THE COUNTRY

- 1.1. Methodological bases of development of industrial enterprises in the conditions of modernization of the economy
- 1.2. The role of foreign investment in the development of industry in the region
- 1.3. Foreign experience in the development of industry (in the case of Italy)

CHAPTER- II. CURRENT STATE OF THE INDUSTRY OF KHOREZM REGION

- 2.1. Status of Khorezm region in the territorial structure of industry of Uzbekistan
- 2.2. Sectoral structure of industry in the region
- 2.3. The level of diversification of industry in the region

CHAPTER- III. INDUSTRIAL DEVELOPMENT PROSPECTS OF KHOREZM REGION

- 3.1. Factors of sustainable productional growth in the region's industry
- 3.2. Perspective directions of territorial development of industry in the region
- 3.3. The main directions of development of industry in the region in the future

CONCLUSION AND SUGGESTIONS

BIBLIOGRAPHY

INTRODUCTION

The importance of the research topic. While serious problems remain in the world economy, the economy of Uzbekistan is developing steadily with high rates, the living standards of the population are steadily growing and the position of our country in the world markets is strengthening.

The effectiveness of the ongoing development and reform strategy in the country, as well as the high esteem of leading international financial and economic institutions, and leading global research centers.

The President of the Republic of Uzbekistan Sh.Mirziyayev in his appeal to the Parliament of the Republic said: "As a result of structural reforms in the economy, the share of industry in the GDP has increased from 35% to 37% this year, but in some towns and districts this issue is not paid enough attention.

As a result, the share of industry in 27 districts of the country does not exceed 1% of the regional index. Therefore, it is necessary to develop mid-term and long-term programs for the development of each district and town industry "

In the area of development of the industrial sector it is necessary to take into account and use the following main factors: natural resource (economic parameters of natural and resource potential); structural and technological (prioritized technological register, sectoral and territorial structure of the economy, innovative parameters of applied technologies, etc.); Institutional (market environment and basic market institutes, legal basis of nature use, etc.); demographic (population density, presence of population placement, etc.); global (degree of regional integration into the global economic system, its role in the national economy, etc.).

Solving the problems related to the role of industrial enterprises in the development of the region's economy and the implementation of a comprehensive development strategy of the regions necessitates the need to substantiate the priorities of regional economic competitiveness based on the rational use of natural resource potential of the regions and the relevance of the topic.

Level of knowledge of the problem. Theoretical and practical aspects of the region's competitiveness and sustainable development of the economy are

influenced by foreign economist G.Brundtland, I.Valerstein, V.Oyken, A.Granberg, J. Walter, U. Izard, M.Porter, P. Krugman, S.Rozenfeld, Research done by Russian scientists G.Azayev, V.Goncharev, I.Semenova, A.Yudanov and others.

Other problems in this direction include the scientists of our country S.Gulomov, T.Akhmedov, A.Vahobov, A.Kodirov, B. Rozmetov, A.Soliev, A.Sodiqov, N.Aimbetov, I.Abdullayev, A.Burxanov, Sh.Ergashxodjaeva and others. analyzed by others.

However, there are no special studies on the modernization of the economy, the role of industrial sectors in shaping the innovative economy.

In this regard, the relevance of the problem, as well as its inadequate study, identified the subject, purpose and main tasks of the master's dissertation.

Relationship of dissertational theme with research plan. The research was carried out within the research plan of Urgench State University.

Purpose of the research. The main objective of the barbarism is the development of scientific recommendations and practical recommendations aimed at identifying factors for the development of industries in the region.

Research Functions. Based on the research objective, the following tasks have been identified:

- Identification of means of increasing the competitiveness of industrial enterprises;
- Evaluation of an innovative strategy for the development of industrial enterprises in the region;
- Analyzing factors of development of the industry of Khorezm region;
- substantiating and determining the priorities of Khorezm region in the development of industrial sectors.

Subject and Object of Research. It is a research object of the Khorezm region economy, which operates and develops in the conditions of economic growth.

Formation of a research subject, shaping sustainable growth of the region under the modernization of the national economy, methods and mechanisms for the development of industries

Research Methods. In the research process mainly used comparative and statistical analysis, SWOT-analysis, systematic and logical approach, economic-statistical and expert evaluation methods.

The scientific novelty of the research is determined by:

- The influence of industry on growth rates of the region's economy;
- Factors and indicators of development of industrial sectors were analyzed and identified;
- An innovative strategy for the development of industrial enterprises was assessed;
- promising forms of development of industrial sectors have been identified, as well as its organizational structure and stages of its development;
- The prospects for the development of the industrial sectors of Khorezm region have been identified.

The scientific and practical significance of the research results. The main scientific findings extend the methodological approaches to the disclosure of common laws and specific regional features that are in place in the region's industrial capacities.

Practical recommendations for substitution of industrial enterprises in the region's economy are used by local authorities in the development of integrated territorial, sectoral and local development programs, rationally and rationally using natural resource potential of the regions.

Output of results. The main aspects of the dissertation are reflected in theses of four scientific articles and lectures.

Structure and extent of dissertation. The introduction of the dissertation consists of three chapters, a summary of the list of used texts, the contents of which are described on the page, as well as the worksheets and tables

CHAPTER- I. **METHODOLOGICAL BASES OF THE DEVELOPMENT OF INDUSTRIAL SECTORS IN THE REGION IN THE CONDITIONS OF THE MODERNIZATION OF THE COUNTRY**

1.1. Methodological bases of development of industrial enterprises in the conditions of modernization of the economy

The need to adapt the domestic enterprises to the conditions of modernization of the economy has led to increased interest in forming competitive strategies, since it is almost impossible to develop tactical measures in market conditions without identifying prospects and identifying future trends.

The rapidly changing enterprises differ greatly from products, commodities, markets, networks, and competitive conditions, specificity of production, diversification potential, staff composition and their capabilities. There are a lot of choices for the economic development of the enterprise. Indeed, in the economic practice, there is a limited number of options for a particular enterprise that can be realistic at a specific stage of a life cycle.

Modern theories of competitiveness are based on regular assessment of the circumstances of a certain industrial enterprise, the understanding of the tasks they are facing, which, in turn, creates diversity that determines the choice of the growth strategy to ensure sustainability of the enterprise, economic results that meet the requirements and economic growth of the enterprise. the development of environmental development projects.

Methodologically these methods are used to identify long-term measures or approaches that have been reflected in the conceptual aspects of the growth of competitiveness of industrial enterprises (Table 1.1.1).

Methodological approaches to the growth of competitiveness of industrial enterprises

1.1.1 - жадвал

	Methodology	Main content
	Projecting Зиндер Е., Beardshov J., Palfreman D.	Separate goals and objectives of the divisions imply the maximum approximation of the goals and objectives of the organization.
	Functional value analysis. Виссема Х., Влчек Р.	This methodology is based on the analysis of the value and the ratio of the result (income, profit) to expenses.
	Strategic planning and positioning Ансофф И., Друкер П., Портер М.	Development goals and objectives, organization capacity, internal and external environment assessment, strategy selection and step-by-step implementation
	Restructuring Томпсон А., Стрикленд А., Файоль А.	The process of mass change of the way organizations operate
	External environment and benchmarking. Ламбен Ж.Ж., Дойль П.	The external environment is the key factor determining the organizational structure of the enterprise. Searching for market segments.
	Reconstruction of business processes . Davenport T., Hammer M., Champy J.	Introduction of radical changes in enterprise activity.
	Scenario approach. Шонесси Дж., Дженстер П., Хасси Д.	Development scenarios serve to evaluate the most probable option for changing the situation
	Scenario approach. Чандлер А., Минцберг Г.	The choice of development path is determined by changes in the organizational and economic structure of the enterprise.

Studying and generalizing research on the problems of industrial enterprises, the conclusion is that the competitiveness of a modern industrial enterprise is reflected not in cost optimization, but in results management.

Depending on the above, the structural modalities that allow for the introduction of result-oriented management of industrial enterprises' competitiveness are of scientific and practical interest. Usually each enterprise should manage its competitiveness in three areas:

- resources;
- external environment in which the company operates;
- The ability of the company to create profits.

The growth of competitiveness can be seen as a link between internal resources and external relations and environmental management.

Enterprise for sustainable growth:

- Mechanisms to support uninterrupted operation;
- It is necessary to form new directions of the society.

Being part of the business process into three phases will allow for a change in its operating conditions. The effectiveness of this approach will be ensured by a separate analysis of the stages of the business life cycle (birth, formation, and maturity).

- development of the basic directions of business and protection against risks by competitors;
- Creating new directions for our business;
- preparing future projects for development.

The task of promoting sustainable growth is to maintain and maintain a balance between different directions, to develop the required number of business types. Balance is the existence of new motive factors that are ready to start the job at the right time. A more accurate description of the balance depends on the specificity of the enterprise and the network. Here, there is a need for flexible approaches in matters such as the number of business lines and investment volumes.

The following factors should be taken into account when calculating the balance:

1. The Development Rates of the Network. Depending on the speed of the industry, achieving a balance can require a large number of routes within the second and third phases (for example, in a rapidly developing software industry) or fewer, but more dependable routes (for example, in poorly developed raw materials).

2. Uncertainty ratio. High level of uncertainty (associated with the development of the industry) means that the complexity of decision-making increases, which increases the need for a large portfolio of business opportunities. The vast majority of real-life routes increase strategic flexibility.

3. Managerial and financial capabilities. The higher the financial resources are, and the higher the power of managers who are able to guide them to achieving them, the more likely they are in the second and third stages.

4. Expectations of Shareholders. The higher the level of risk ready for the investors, the higher the point of the balance is, the stronger the second and the third levels. In this case, the number of routes and investments can be increased within these stages.

The assessment of the growth of competitiveness is carried out by comparative analysis of the production and economic activity of the enterprise with the set goals. In our opinion, it is necessary to take into account the following factors:

- The degree of compliance of the capacity building for the enterprise;
- the degree of risk involved in implementing a coherence strategy;
- Sufficient resources to implement cross-sector development measures;
- Taking into account the environmental factors;
- The level of rational use of resources.

Thus, it is possible to conclude that the growth of the competitiveness of the enterprise is based on the following directions of development:

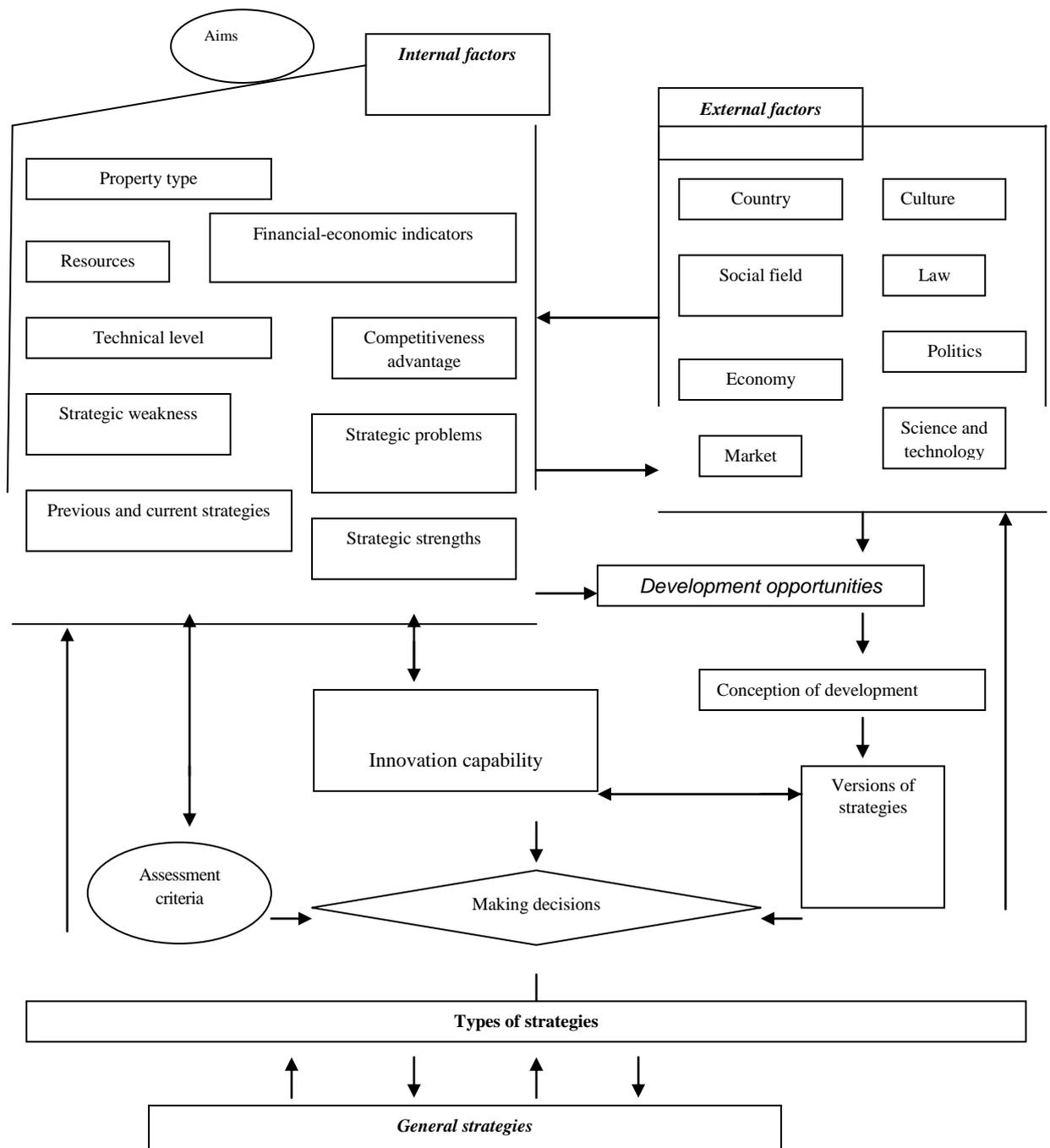
- the content and content of the goals formed as the result of the interaction of the "business environment" system at the level of micro and macroeconomics;
- Production structure and factors of its formation.

Increasing the competitiveness of the enterprise should be based on the following principles that formulate its competitive advantages: flexibility, stimulating attributes, "vision for the future", environment monitoring, indicators balancing, innovative focus, synergistic impact, information support, scientific justification of decisions, interconnection of external and internal environment identity

Based on the assessment of the impact of a number of key internal and external factors influencing the development of enterprise competitiveness measures, the enterprise competitiveness strategy should enable the enterprise to identify the key components of the enterprise that will be competitive in terms of its competitiveness, financial sustainability and investment attractiveness (Figure 1.1.1).).

Identification of key components of the competitive strategy takes into account various aspects of the economic activity of the enterprise and its multi-dimensional aspect of market behavior. Estimating reasonable quantities of production and determining production volumes provide a scientifically grounded approach to determining the cost reduction strategy, and may serve as a basis for a range of other resource-related policy strategies.

This assessment is based on the comparison of the average and variable costs of the producer to the level of market price in the long and short term in the competitive market.



1.1.1 – Figure. The order of selection of the components of increasing the competitiveness of the modern enterprise ¹

The evaluation of enterprise competitiveness can be focused on the following areas:

1. Adoption of the organization as an open system and, in turn, the separation of external and internal productivity indicators. External productivity is expressed by reflecting the degree of compliance of the enterprise with the environmental requirements (ie, how effectively the company's behavior in the marketplace) is usually achieved. The outcome is expressed by the cost indicator, reflecting the effects of changes in product turnover processes (ie, how effective the processes are in the production process). There is also a situation where internal productivity is high (raw material turnover processes are improved) and low performance (low product requirements).

2. Use of general systemic and individual indicators (indicators of achievement and system status).

3. Filling in the economic performance indicators with the organization's performance indicators.

4. Approach to the choice of seasonal indicators.

The following may be the descriptive indicators:

- The effectiveness of the organization - the level of achievement of its goals;
- Compactness - resource utilization rate;
- Benefits - the ratio between revenues and expenditures;
- efficiency - an indicator of profitability;
- Change (increase or decrease) of the share of loss; and etc.

In the opinion of Borisovsky, it is a complicated methodological problem to determine the criteria and indicators of the competitiveness of enterprises⁵. The analysis of scientific literature on the issues of the competitiveness of the enterprise allowed forming the list of criteria and indicators (Table 1.1.2).

¹ Source: Created by the authors by generalizing of scientific literature

⁵ Source: N. Borovskikh. Competitive strategies: methodology, formation and development. M.: // Marketing. No. 2,2005,44s.

Main criteria and indicator groups of enterprise competitiveness⁶

Criteria	Indicator groups
Availability and provision of production resources	Technique, equipment availability, age; applied technologies; level of production organization; production areas..
Availability and provision of material-technical resources	Description and sources of material and technical provision; number of suppliers and their reliability; relationships with suppliers.
Provision of personnel	Personnel and qualification; occupational safety; the need for new staff; staff motivation
The system of organization management	Organizational and legal form of the organization; property type; responsibility distribution; communication system; management methods; availability of information systems
Efficiency of enterprise production function	Productivity management efficiency; expenses; labor productivity; use of basic and circulating funds
Practicality function of the enterprise	Market behavior; production capacities; investment attractiveness; sale profitability
Competitiveness of the product	The cost and quality of the product
Financial stability of enterprise	Indicators of liquidity and solvency of the enterprise; financial stability; property status indicators

At the same time, M. Porter's main principles that should be followed by the commodity producer in the context of global competitiveness formation are described as following:

1. Competitiveness is based on improvements, innovations and changes in its own right.
2. Competitive advantage - the result of the whole package of activities that involve the producer and its counterparts, involved in the creation and utilization of the product, and therefore, it necessary to find a growing industrial cluster and take place in it for the enterprise
3. Competitive advantage is maintained only by continuous improvements and often by external factors.
4. Competitive advantage requires improvement in its sources. To do this, companies can consciously eliminate old ones by shaping new competitive advantages

⁶ Source: N. Borovskikh. Competitive strategies: methodology, formation and development. M.: // Marketing. No. 2,2005,44s

5.Regarding competitiveness requires a global approach to strategy. In order to achieve productivity and synergy, it is necessary not to be confined to the national market by simultaneously integrating the wide range of activities ⁷.

Because of lack of experience in the restructuring and modernization of production based on the new technologies, the enterprises of the country have a great interest in adapting the experience of foreign countries to innovative development strategies. For example, in order to reduce the level of risk associated with the technological modernization of industrial enterprises, foreign companies use a "patented analysis" tool. The patented analysis engine enables the transfer of patent information to the competition information, allowing for predicting technological trends and planning the required level of competitiveness based on new technologies (Table 1.1.3).

Table 1.1.3

Strategic potential of patented analysis facility ⁸

Utilization field	Opportunities	Strategic benefits
Analysis of technological competition	Evaluating Company Capabilities and Strategies. Evaluating large and small growth of technologies.	Improving the Brand Management Strategy. Expanding the scope of planning.
Evaluation of modernization risk	Evaluation of potential purchases of technology. Analysis of joint venture opportunities.	Buying the best technology. Reduction of investment risks. Reducing the uncertainty of planning.
Managing patent portfolio	Identify valuable patents, brands. Identifying Potential Buyers of Technology.	Benefit from patent activity . Identify new additional business lines.
Managing scientific research and experimental development	Evaluation of Processes / Goods Plans. Definition of identifying technologies.	Better deployment of ISTI. Raising emphasis on propagandistic ideas.
Control of product brand	Analyzing the content of new patents and rights for property.	Being aware of the great scientific achievements, changes in firms' development and the emergence of new participants in the market. Protection of intellectual property

⁷ Porter M. International Competition. - Moscow: International Relations, 2005. - 859 p.

⁸ Source: y Fleischer. Strategic and competitive analysis. Methods and means of competitive analysis in business. - M.: BINOM. Laboratory of Knowledge, 2005. p. 416-417.

1.2. The role of foreign investment in the development of industry in the region

Large-scale reforms in the country have created enormous opportunities for the country's economy to effectively use their natural-economical and labor potential, localization of industrial production, improving the mechanism of attracting foreign investments, improving the quality and quality of life. It is known that industrial potential is crucial in the economic development of each country, its integration into the global community. Today, the role and place of foreign investment in the dynamic development of the economic sectors is remarkable. President of the country Sh.M.Mirziyoev emphasized that "issues of modernization of sectors and territories, their competitiveness and development of export potential should be in the focus of our attention. For this purpose it is necessary to attract foreign investments and advanced technologies and ICT in all spheres more actively".⁹ As a result of the creation of a favorable investment climate in the country, the share of foreign investment in the economy has grown from year to year. In 2016, US \$ 16.6 billion was invested in the economy, which is 9.6% more than in 2015. The volume of assimilated foreign investments and loans grew by 11.3% and exceeded \$ 3.7 billion. In 2016, 164 major industrial facilities worth \$ 5.2 billion were commissioned under the Investment Program. It should be noted that for the purpose of creating conditions for the establishment of enterprises and organizations, gradual simplification of their formulation and state registration, transition to the principle of gradual registration of their registration and removal of bureaucratic obstacles in the development of private entrepreneurship. The decrees and decrees of the President of the Republic of Uzbekistan do not only contribute to the investment process in the republic.¹⁰ V.I. According to the conclusions, there will be factors accumulated during the most productive and attractive long-term production activity for investors: infrastructure development, innovative potential, intellectual potential. There is a need to improve the mechanism of attracting foreign investments to achieve the rapid development of the industry.

⁹ Speech of the Sh.M.Mirziyoyev to the Joint Session of the Oliy Majlis on the occasion of the solemn meeting of the Cabinet of Ministers of the Republic of Uzbekistan, dedicated to the inauguration of the President of the Republic of Uzbekistan, "Khalq suzi", December 15, 2017, №247 (6682)

In the Strategy of Actions for the Development of the Republic of Uzbekistan in 2017-2021, Annex 1 of the Decree of the President of the Republic of Uzbekistan No. 4947, dated February 7, 2017, the "Strategy of Actions for Modernization, Technical and Technological Modernization, Production, Transport, to carry out an active investment policy for the implementation of social infrastructure projects",¹¹ the State Program on the implementation of the Strategy of Actions will be set up in 2017 large enterprises of the Republic of Karakalpakstan have been set up to implement a set of measures aimed at reducing the cost of produced goods by an average of 8% and increasing their competitiveness.¹² Particular attention will be paid to modernization and upgrading of the equipment that is spiritually and physically obsolete, energy efficiency in production, optimization of technological processes. In this direction, 602,000.0 million soums will be invested from enterprises' funds and loans of commercial banks, which will increase the competitiveness of domestic products, primarily in the foreign markets and increase the export potential of the sectors. In implementing this, it is necessary to thoroughly analyze many factors of endogenous and exogenous nature, affecting the efficiency of industrial production development, modernization and diversification of industries, development of medium and long-term programs.

In our opinion, the further development of the industry, first of all, development of mechanisms of attraction of foreign investments taking into account peculiarities of the industry development, that is, deep analysis and realistic assessment of domestic capacity of industrial sectors; priorities should be identified.

The main indicators of the development of investment activity in the country are indicative of the steady growth of fixed capital savings through the attraction and acquisition of domestic and foreign investments. In the recent years (2001 - 2016) the capital stock savings accounted for 25% of the GDP, which corresponds to the indicators of developed and dynamically developing countries of the world. Creation of a favorable business environment and attraction of investments have provided not only growth of economic growth, but also significant changes in the

¹¹Mashkin VI. The essence of the investment process. ACDI materials. Economy and life. 2005. №12. ¹²Annex №1 to the Decree of the President of the Republic of Uzbekistan of February 7, 2017, No. 4947, "Strategy of Actions on the Five Priorities of Development of the Republic of Uzbekistan for 2017-2021" .Lex.uz

structure of the economy. Due to diversification, modernization, technical and technological renewal of the industrial sector, the growth of the total volume of industrial output and the share of industry (including construction) in the structure of GDP increased from 27.8% in 1995 to 32.9% in 2016¹³

The Decree of the President of the Republic of Uzbekistan "On the Establishment of the State Committee for Investments of the Republic of Uzbekistan" dated 31 March 2017 serves to further improve the investment climate. The main tasks of the State Committee for Investments are to coordinate the work on forming and implementing a single state investment, including foreign investment, aimed at promoting the development of enterprises with foreign capital, which is the most important tool for accelerated development of industrial production in our country. It should be noted that the factor influencing on the development of industry is investment, which broadens the gross domestic product and increases the efficiency of the national economy.

The attraction of foreign investments in the development of industry not only contributes to the development of the economy, but also to the social sphere. The attraction of foreign investments contributes to development of transport and communication infrastructure, development of agricultural products processing, introduction of resource-saving technologies in the real sector of industry, increase in the volume of production of consumer goods, export volume of products expansion, creation of a new workforce, and well-being of the population.

CHAPTER- II. CURRENT STATE OF THE INDUSTRY OF KHOREZM REGION

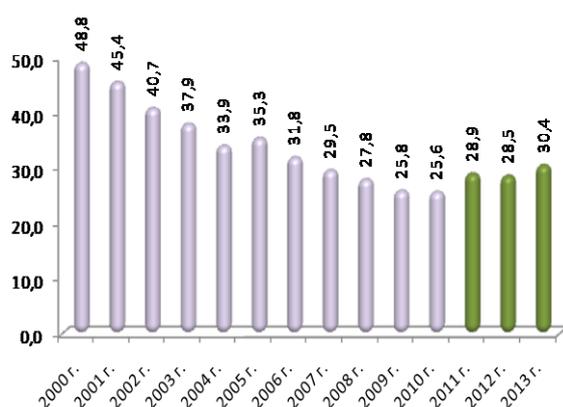
2.1 Status of Khorezm region in the territorial structure of industry of Uzbekistan

In the territorial structure of industry in Uzbekistan, Khorezm region, along with the Republic of Karakalpakstan, Namangan, Jizzakh and Surkhandarya regions, belongs to areas with a lower **level of industrial potential**, where the main specialization of the industry sector is the primary processing of agricultural raw materials, in particular the cotton gin industry. In terms of industrial production, the region ranks 12th, with slightly better positions than the Republic of Karakalpakstan and the Surkhandarya region. The industrial production per capita of the region in comparison to the corresponding average national parameter has a trend to decrease since 2000; however in the recent 3 year we can observe growth which does not exceed 31%. The high difference in the level of production compared with the average national parameter (3.3 times), as well as Navoi (11.8 times), Tashkent (5.4) regions and the city of Tashkent (9.3 times) is caused by the uneven presence and using the natural resource potential of the territory (Graphic 1).

Graphic 1

Assessment of the level of industrial production of Khorezm region (in % comparison to the republican parameter)

Changes in the level of industrial production in the regions of Uzbekistan for 2000-2017.



Comparison of the level of industrial production of the regions of Uzbekistan for 2017.
(in % comparison to the republican parameter)



Source: Statistics committee of Khorezm Region

A similar trend is observed in the labor productivity of industry, characterized by positive dynamics of accelerated growth due to the expansion of manufacturing production. (Graphic 2). The main industries with relatively high production rates

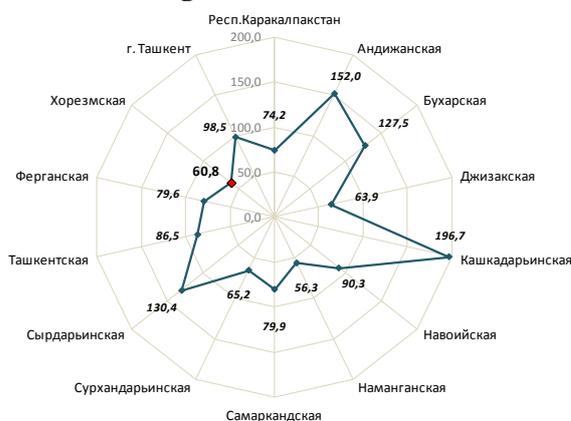
are light industry, including cotton ginning, and flour-grinding industry. At the same time, among the regions of Uzbekistan, Khorezm region, along with the Surkhandarya, Jizzakh and Namangan regions, occupies low positions, which is largely due to specialization, mainly in labor-intensive production, as well as the low level of modernization and a high degree of depreciation of fixed assets.

Graph 2

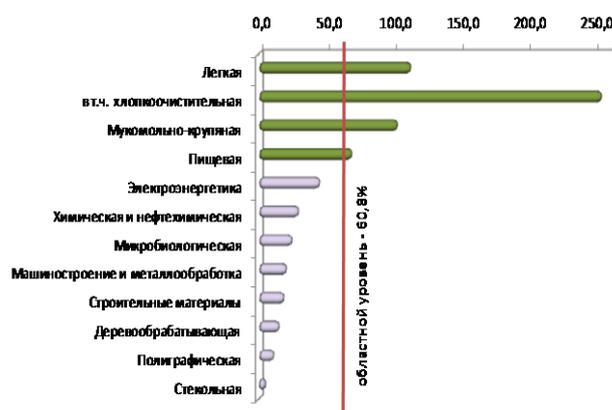
Assessment of the level of labor productivity in the industry of Khorezm region for 2017

(production output on the 1 employed in % in comparison to the republican parameter)

Comparison of production output levels by regions of Uzbekistan



The level of production output in the context of industrial sectors



Source: Statistics committee of Khorezm Region

The agrarian orientation of the regional economy and the availability of rich agricultural raw materials and the absence of mineral deposits has formed industry specialization in the primary processing of available resources. Thus, the industry of Khorezm region specializes in the production of agricultural products of light industry, in particular, cotton-cleaning, food and flour-grinding industries. For 2000-2017 along with traditional industries, the building materials industry, the microbiological and woodworking industries have developed.

However, in the production activities of the region, dominates primary processing of raw materials, in particular, the primary processing of raw cotton. As a result, the high dependence on the cotton-cleaning industry and the insufficient expansion of final-product output affected the low level of production diversification in the Khorezm region.

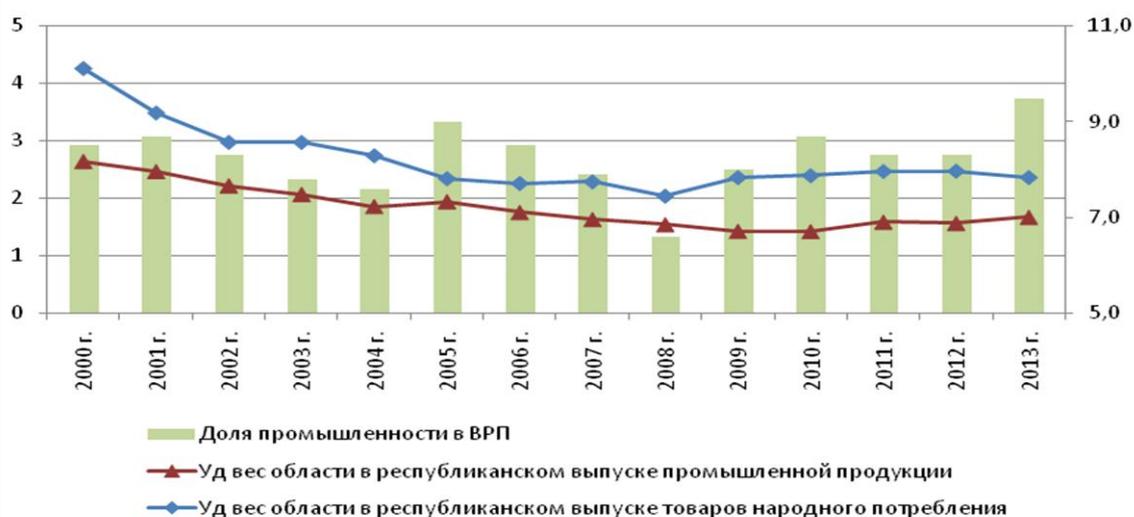
The development of the industry of Khorezm region is mainly associated with the faster growth of production in such sectors as the production of building materials, woodworking, food, flour-grinding and fuel industries, which affected the positive structural changes in the industry and increased industrialization of the region (from 8.5% in 2000 up to 9.5% in 2017) (Graph 3).

A significant contribution of the region in the republican production is noted in the production of sugar (100%) and soft drinks (17.5%). In addition, the region's

leading positions in the cultivation of raw cotton ensured a significant role in the production of cotton fiber (8.2%), vegetable oil (7.9%), and favorable conditions for growing grain-bearing crops created the possibility of producing flour (6.0%).

Graph 3

Structural changes in the industrialization of the Khorezm region



Source: Statistics committee of Khorezm Region

Despite this, the economy of the Khorezm region remains agrarian-oriented, and the industrial sector stays less developed. Low starting conditions in the initial period of reforms and insufficient growth of regional production (below the republican level in the period 2000–2017) affected indicators of the share of industry in GDP (below 10%) and contribution to the republican output (1.8% on average and 1.7% in 2017).

Structural changes in the industry, mostly related to the implementation of promising projects, predetermine the competitive potential of the region. The main factor determining the advantages of industry in the region is the existing production and industry specialization, which in the future will serve as a point of industrial growth. In the dynamics of the sectoral structure of industry for the specified period, along with traditional industries, new non-traditional ones are being developed for the regions of production.

Light industry, being a traditional branch of the region, occupies a significant contribution to the production activity of the territory (40.5% of the total industrial production). The main producers of light industry products are the Bagat, Gurlan, Qoshkopir, Hazarasp, Hanka, Shavat and Yangiarik areas.

Formed specialization in the production of light industry products is largely due to the activities of 12 large enterprises, which account for 85% of the industry output. At the same time, due to the favorable conditions for growing the most important agricultural raw materials - cotton, the majority of these enterprises (8 units) are focused on ginning production, as a result of which the main part of the output of the industry is cotton ginning (over 75%).

Processing more than 75% of the local raw cotton, the share of the cotton-ginning industry is 30.1% in the total industrial production of the region. The output of cotton fiber during the analyzed period increased by 1.2 times (in physical terms) and in 2013 amounted to 89.0 thousand tons, and this type of product is the main export commodity of the territory.

A rich resource base is a major factor in the implementation of projects to expand processing industries. Today, processing about 10-12% of cotton fiber, in the region are being created capacities for the production of finished products. Adjusted production of medical bandages and cotton, hosiery, men's suits, women's dresses, bed linen and men's underwear in the region. In particular, along with the increase in output (in natural terms) of cotton yarn (5.5 times) and fabric (2.7 times), a positive trend is observed in the production of garments (2.5 times).

However, knitwear production is not developed enough. Due to the lack of raw cotton, the utilization rate of cotton fiber production capacity is 40-60%, and difficulties with the availability of working capital, the acquisition of high-quality raw materials and equipment at affordable prices, as well as problems with infrastructure security affect the insufficient use of existing production capacities of cotton yarn production (72.7%), as well as constrain entrepreneurial initiative to produce ready-made garments and knitwear.

The output of finished products of the light industry is mainly formed by small enterprises, the production volumes of which are so insignificant in physical terms separately. In addition, in most areas, the production capacity of finished products is extremely small (Gurlan, Yangiarik, Yangibazar).

Possessing the advantage of silkworm breeding and wool production in the region, there are opportunities to produce finished products made of silk and wool. Since ancient times, Khorezm region has been famous for its carpet weaving, the traditions and experience of which passed from generation to generation for thousands of years. Carpets and carpet products produced by "Khorazm Gilamlari" LLC (Khiva district), as well as by small enterprises (Khiva, Urgench, Yangiarik) are distinguished by high quality and demand in both domestic and foreign markets. However, problems associated with the acquisition of raw materials (neutron), unfavorable energy supply, delays in currency conversion and high lending rates (up to 14%) affect the capacity utilization of carpets and carpet products (48%), synthetic fibers and threads (38.9%), and are also the main reasons for the bankruptcy of many enterprises.

Despite the growing demand for light industry products, the region's self-sufficiency in them due to local production is still quite low. Due to domestic production, the region's demand is partially satisfied only for carpets, fabrics and cotton yarn, men's suits, jackets, shoes (table 2.4.1.1). The rest of these and other goods necessary for the region are covered by the import of products from other regions of the country and imported goods. At the same time, being a high-quality

raw material, wool and leather (Koshkopir, Bagat) in the region does not undergo deep processing down to finished products and after the first processing as raw materials are exported to Russia.

Table 2.4.1.1

Supplement of the Khorezm region population in light industry products due to its own production, %

Product name	Area need	Volume of production for 2017	The degree of satisfaction of needs through its own production, in %
Carpets and carpet products, (million square meters)	673,5	619,9	92,0
Men's suit, (thousand pieces)	101,0	66,2	65,5
Cotton fabrics, (thousand square meters)	11785,9	3814	32,4
Cotton yarn, (thousand square meters)	18520,7	4396,5	23,7
Jacket, (thousand pieces)	151,5	23,7	15,6
Men's underwear, (thousand pieces)	5556,2	82,7	1,5
Footwear, (thous. Pairs)	4040,9	36,6	0,9
Pants, (thousand pieces)	404,1	0,6	0,1
Hosiery, (thousand pairs)	9765,5	5,9	0,1

At the same time, rich agricultural resources, along with the availability of labor,² create opportunities for the deep processing of agricultural raw materials, up to the production of high-quality finished products using new equipment and technologies. Thus, the potential for the processing of cotton fiber have Gurlan, Koshkopir, Hanka, Shavat, Yangiarik and Yangibazar districts, wool - Bagat, Koshkopir, Khazorasp, Yangiarik, skins - Gurlan, Bagat, Khazorasp, silk - Koshkopir, Hanka, Khazorasp and Bagat districts.

The food industry is the second largest industry in the region, which accounts for 38.6% of the total production, including flour and cereals - 16.2%. The activities of large enterprises, which account for more than 70% of the industry's production, determined the industrial specialization of the region in the production of sugar, soft drinks, flour and oil and fat products.

² Characterized by unemployment

2.2 Sectoral structure of industry in the region

Khorezm region contributes to the production of oil and fat (7.0%) and the production of soft drinks (7.5%). Along with this, a special advantage of the territory is the presence of the Khorezm sugar factory - the monopoly producer of sugar in Uzbekistan. Currently, the production capacity for processing local cane raw materials, constituting a thousand tons of sugar per day, partially covers the needs of the population of the regions of Uzbekistan (about 50%)³. The raw material base, characterized by sprouting in the region of sugar sorghum, creates additional opportunities for the production of liquid sugar, and secondary raw materials can be used as a feed base.

Playing an important role in providing the population with such foods as flour, cereals, bread, pasta, etc., the milling industry is characterized by the activities of three large milling enterprises (Urgench, Hanka, Shavat districts). The main part of the industry output falls on flour (more than 93%) and only 3.3% is on the cereals industry, and the waste is used for the production of compound feed.

Favorable conditions for the cultivation of grain crops provide an opportunity in the future to expand the existing production capacity, as well as to learn the production of various cereals and children's cereals with the addition of dried fruits and vegetables.

Along with this, measures aimed at providing the population with their own food products have contributed to the expansion of the production of essential goods (bread and bakery, pasta, sausages, canned fruits and vegetables, dairy products, etc.) mainly by small enterprises.

In recent years, the production of sugar (more than 30 times), dairy (7.0 times), alcoholic beverages (2.3 times), sausage (1.1 times) products and mineral water (1.2 times) has noticeably increased⁴. Urgench city, Khazarasp and Urgench districts make the largest contribution to the economy of the industry, producing more than 85% of the industry's products.

At the same time, insufficient access to infrastructure components, lack of storage facilities in certain areas, unstable energy supply in distant and border areas, lack of working capital for the purchase of raw materials, poor quality and demand for products due to the depreciation of fixed assets of food industry enterprises do not allow full utilization of production capacities of vegetable oil (61.7%), grape wine (59.9%), alcoholic beverages (30.9%), flour (40.2%), which, in turn, creates a problem of undersupply population consumer goods.

At the same time, the rich resources in the processing of fruit and vegetables, meat and dairy products are not effectively used. The level of fruit processing (8.4%), vegetables (5.2%), meat (4.0%) and milk (7.4%) does not reach even 10%. If insignificant meat processing is noted mainly in small enterprises of Urgench city, Urgench, Gurlan, Khiva and Bagat districts, milk - Urgench city, Urgench, Bagat, Khiva and Koshkopir districts, fruit and vegetable products - Bagat district, then in Khazarasp, Shavat and Yangiariq districts processing of these products

³ According to official statistics, the annual demand of Uzbekistan for sugar is about 700 thousand tons, of which about half is purchased on the world market.

⁴ From the calculation of production volumes in natural terms

absolutely absent. The low level of processing, coupled with the lack of modern packaging and storage technologies, as well as the presence of the problem of energy supply, leads to the loss of a significant part of the harvest of fruits and vegetables and a decrease in consumer demand.

At the same time, it should be noted that the region's self-sufficiency ⁵ in most food products remains at a rather low level. So, for example, for such types of food products, such as sugar, cereal, vegetable oil, the population's need is fully met through its own production. However, the degree of satisfaction of the needs of the population with flour and salt is about 40-50%, confectionery and pasta - 10-18%, margarine products, cheeses, sausages - 1.5-5.0%, while meat, canned fish, baby food in the region are not produced. The need for the above goods is covered by the importation of products from the city of Tashkent and other regions of the country. (table 2.4.1.2).

Table 2.4.1.2

The degree of supplement of the population of Khorezm region in food products due to own production, %

Type of Product	Area need	Volume of production for 2013	The degree of satisfaction of needs through its own production, in %
Sugar, (thous. tons)	32,7	356,4	1091,1
Vegetable oil, (thous. tons)	14,0	22,8	163,2
Grain, (thous. tons)	6,4	8,4	130,6
Flour (including bread), (thous. tons)	162,5	76,6	47,1
Salt, (thous. tons)	5,4	2,5	46,4
Confectionery, (thous. tons)	3,2	0,6	17,9
Pasta, (thous. tons)	9,3	1,0	10,6
Cheese, (thous. tons)	6,5	0,3	4,7
Margarine products, (thous. tons)	2,9	0,1	2,5
Sausages, (thous. tons)	5,2	0,1	1,7
Animal oil, (thous. tons)	10,8	0,001	0,0
Meat products, (thous. tons)	57,1	0,0	0,0
Sour cream, kaymak, (thous. tons)	9,2	0,0	0,0
Cottage cheese, (thous. tons)	15,5	0,0	0,0
Canned fish, (thous. tons)	2,8	0,0	0,0
Tea, (thous. tons)	1,3	0,0	0,0

The imbalance of domestic demand and supply for local production, characterized by a low level of supplement of the population in food products, affects the volatility of the consumer market in the region. Insufficient implementation of measures to study the demand for products, Insufficient of the development of new technologies and their introduction into the production sphere, as well as the lack of professional marketers preventing the formation of competitiveness of products and constrain the stable development of consumer goods production in the territory.

Nevertheless, having the potential for growing fruit and vegetable products, sugar sorghum, livestock breeding, and silkworm, the region has the potential of deep processing of rich agricultural raw materials up to the production of finished

⁵ Satisfaction of the consumer market with goods of own production according to the minimum medical standards

products available to the population in terms of quality and price. Thus, the specialization of territories for growing crops will provide an opportunity to expand the production of meat products and canned food, semi-finished products, dairy products - baby dry mixes, powdered milk, condensed milk (Urgench city, Urgench, Khazarasp, Shavat, Koshkopyr, Bagat districts), fruit and vegetable canned food and juice, tomato paste, fruit dried apricots⁶ and melon, various seasonings for soups and main courses (Shavat, Urgench, Khiva, Hanka, Bagat districts).

In addition, the territory is characterized by the natural germination of licorice in the coastal zone, the root of which is excavated and exported (Yangibazar, Gurlan, Shavat districts) to India, Korea, China. At the same time, there are no facilities for processing this raw material in the regions, and only in the Shavat district the primary processing is held (drying and powder production) followed by its sale to the external market. According to surveys of local specialists and entrepreneurs, the main problem of the lack of processing production is the inaccessibility of the area where licorice sprouts and difficulties in obtaining quotas (BIO supervision sets the rate for 1 kg ~ 1 USD). The solution of these issues will provide an opportunity to learn the production of medicines, various additives and semi-finished products for the food, paint and varnish products for the textile industry.

Meanwhile, structural changes in industry are characterized by the development of new, non-traditional industries for the region, such as electric power industry, mechanical engineering, production of building materials, chemical and woodworking products..

In order to meet the growing demand in the construction industry, the production of building materials, which account for 7.4% of industrial production in the region, has been accelerated. Khorezm region does not have rich mineral resources, like other regions of Uzbekistan. There are only minerals of brick raw materials and sands. At the same time, 15 deposits of building materials have been explored, of which only 2 fields are being exploited.

The main products are precast concrete and concrete materials (27.6%), wall materials (47.9%), constituting more than 75% of local construction products. In the region, predominantly small enterprises have launched production of building bricks, ceramic tiles, cinder blocks, slate iron, nails, and also limestone, gypsum local knitting products.

In the future, the development of the Khiva, Koshkopyr and Bezergenskdeposits of brick raw materials and sand will allow the production of silicate brick, anti-corrosion coatings, building clay and glass to be produced (Khiva, Khazarasp, Koshkopyr, Yangibazar districts). In addition, there are opportunities to create cement and lime production based on the use of the Muruntau deposit of the Republic of Karakalpakstan in the framework of interregional projects (Gurlan, Yangibazar, Urgench, Khanka and Khazarasp districts).

⁶ Dried fruits and vegetables

The region has an advantage in regional electricity generation (6.2% of the industrial production of the territory), provided by hydroelectric power (52.4% of the total production of the industry) and electrical networks (44.7%). The main source for the formation of the territory's energy system is the Tuyamuyun Hydroelectric Power Station (Khazarasp district), which produces 1110 million kW of electricity, and «Urgench Heating Network», JSC - 407.8 thousand Gcal. Along with this, 30% of the electricity generated by the Takhiatash Thermal power plant of the Republic of Karakalpakstan is used for domestic consumption. Nevertheless, the level of capacity utilization of the hydroelectric power station is 26-30%, which is connected with the water level of the rivers.

Meanwhile, one of the main factors for the stable functioning of regional energy is the reconstruction of hydropower facilities, as well as the development of alternative types of energy (solar).

In addition, in the region, a start has been made on the development of new, non-traditional for the production areas - engineering and chemical industries.

Mechanical engineering and metalworking of the region are represented by the activities of large enterprises of JSC "Urgench Excavator" and LLC "Agro Mahsus Tuzatish Sozlash" (Urgench), specializing in tractor and agricultural engineering, as well as small enterprises producing spare parts for the mechanical engineering industry (Urgench city, Urgench, Hazarasp districts), parts and components for agricultural machinery and tractor construction (Urgench, Shavat, Yangibazar districts), metal structures and products (Urgench city, Khiva, Khanka districts), heating kettles (Khanka) making repairs of machinery and equipment.

Surveys of local specialists and entrepreneurs revealed a high propensity of the population of the Khorezm region to technical sciences and the introduction of innovations. At the same time, in the course of the surveys, the presence of inactive and low-power engineering industries was identified, the main reasons for which were the lack of raw materials, lack of working capital and poor power supply. So, for example, in the Shavatsky region there is a bearing plant, equipped with new equipment, allowing to bring the level of capacity utilization (rolling bearings) to about 60%. However, this indicator, due to the lack of raw materials and demand for products, is only 25%.

Along with this, the implementation of a promising mechanical engineering industry project (Khazarasp district) will enable the production of high-tech products (cars), as well as the development of localized production of spare parts and components not only in Khorezm regions, but also in the Republic of Karakalpakstan and the Bukhara region. At the same time, along with machine building and metalworking, adjacent industries and ancillary industries, in particular, the chemical and glass industries, will be widely developed.

The chemical industry, which accounts for 1.0% of the industry in the region, is represented by the activities of small enterprises producing plastic products, tapes, pipes and sheets of polymeric materials, polymer packaging, and also paints. The main problem in the chemical industry (in the production of paints and varnishes, plastic products, etc.) is the lack of raw materials and the slow process of technical renewal, which leads to a reduction in quality and demand. At the same time, there are opportunities to create a production of paints and lubricants, plastic products, glass and headlights for cars.

2.3 The level of diversification of industry in the region

The industry of Khorezm region is characterized by an insufficient level of diversification, which is caused, on the one hand, by the orientation of industrial production towards the production of cotton fiber, and, on the other hand, by the weak implementation of investment projects based on the advantages of the territory. Meanwhile, implementation of investment projects and the creation of new, non-traditional productions for the areas, shows a tendency to increase the degree of production diversification. However, in order to expand production, the region faces an urgent problem of solving a number of issues:

- low competitiveness of products and lack of marketing work to study the demand and needs for local products lead to the accumulation of excess residues of unsold products and affect the financial condition of enterprises;
- insufficient infrastructure support, characterized, first of all, by limited energy and water resources, which hinders the initiatives of local enterprises;
- underdeveloped production infrastructure, in particular the transport system, affects the increase in transportation costs, production costs and is a serious obstacle to improving the competitiveness of products produced;
- the demographic and personnel factor, 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, in total, leads to an acute shortage of specialists, ranging from highly qualified process engineers to professional specialists;
- low cooperation of large enterprises, small businesses and universities leads to poor development of the industrial sector.

The main factor of structural changes in the industry is also the degree of technological development. The industry of Khorezm region is distinguished 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 modernization⁷ 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 equipments, as well as technical re-equipment and reconstruction of existing industries (Graph 2.4.1.4). As a result, due to the relatively high capital productivity of production, the introduction of advanced equipment and technologies, as well as more intensive growth and renewal of machinery and equipment in 2013, along with Tashkent, Andijan, Samarkand and Namangan regions, Khorezm region took advanced position on the degree of modernization of production.

⁷ Calculated taking into account the capital return indicators of the growth of production, import of cars and equipment, the coefficients of renewal, disposal, growth and suitability of cars and equipment.

Comparative assessment of the degree of modernization of industry for 2006 and 2012



In general, a positive modernization process is indicated by the fact that the share of machinery and equipment in the total value of fixed assets in industry increased by 6 percentage points and reached 37.5% in 2013, of which 2.3% are new machines and equipment. The high rate of renewal of machinery and equipment (10.1%), compared with the retirement rate (2.4%), indicates that the modernization in the region's industry is largely due to the technical re-equipment and reconstruction of existing facilities.

The implementation of measures for modernization, technical and technological re-equipment made it possible to reduce the degree of depreciation of fixed assets in industry⁸ by 15.5 percentage points to 49.1% with an average annual update of 12.7%, including machinery and equipment by 7.8 percentage points up to 38.6%, respectively. Nevertheless, along with relatively low depreciation of machinery and equipment (below the average national parameter 50.9%), depreciation of all fixed assets remains high (above the republican parameter 42.3%), which indicates the extremely outdated condition of industrial buildings and structures.

High depreciation of fixed assets, characterized by aging and deterioration of the production base, lag in the process of modernization and technical re-equipment, due to which there is a low level of capacity utilization. The lack of working capital for the purchase of high-quality equipment hinders the process of modernization and affects productivity and lack of demand.

Such high rates of depreciation of fixed assets and poor introduction of high-tech equipment can affect the production process, as result it leads to a reduction in

⁸ Based on data from large enterprises, excluding small enterprises and microfirms.

production capacity utilization, an increase in material, energy and labor intensity of production, a decrease in effective demand and quality of goods.

Thus, the result of the difference in natural resources and production potential, as well as their inefficient use, affecting the one-sided sectoral structure of industry, was the unbalanced development of territories and asymmetry in territorial industrialization. In all areas of the Khorezm region, the indicator of specific weight does not exceed 0.5% in the total industrial output of the country (table 2.4.1.3).

Along with this, 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%) districts, which account for more than 55% of regional production (graph 2.4.1.5). The activity of large industrial objects of processing industries of republican significance on their territory determined the relatively high level of production⁹.

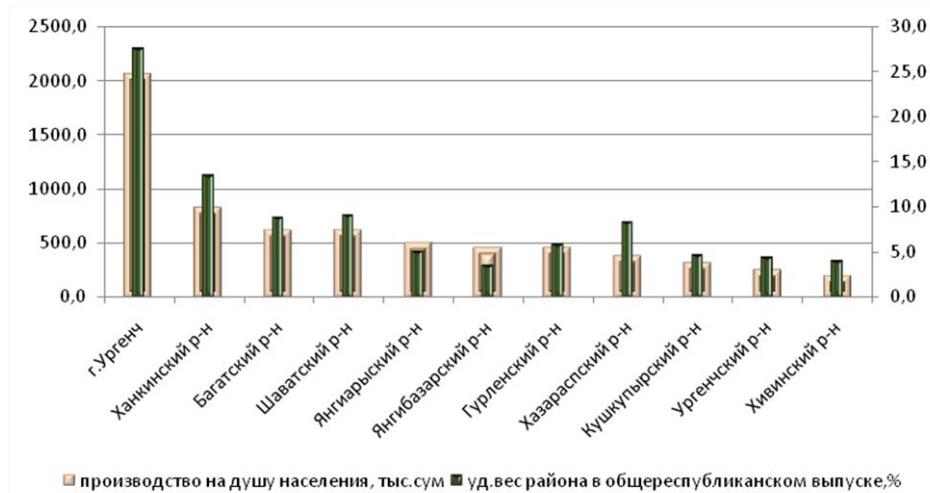
Table 2.4.1.3

The number of areas with low industrial production, in % of the average republican volume

Name of the region	2000 г.			2005 y.			2017 y.		
	below 0,5%	from 0,5 to 1%	from 1% and higher	below 0,5%	from 0,5 to 1%	from 1% and higher	below 0,5%	From 0,5 to 1%	from 1% and higher
Rep. Karakalpakstan	14			14			14		
regions:									
Andijan	12	2		14			13		1
Bukhara	10		1	10		1	10		1
Jizzakh	12			12			12		
Qashkadarya	11		2	11		2	11		2
Navoi	8			8			8		
Namangan	9	2		11			11		
Samarkand	15			14			12	2	
Surkhandarya	12	2		14			13		
Sirdarya	4	5		8			7	1	
Tashkent	12	2	1	14	1		10	2	2
Fergana	13	2		14	1		14	1	
Khorezm	9	1		10			10		
Rep. Uzbekistan	141	16	4	154	2	3	145	6	6

⁹ The level of industrial production is calculated as the ratio of per capita production of industrial products of the territory to the regional parameter

Assessment of the level of industrial production per capita



At the same time, Yangibazar (3.6%), Khiva (4.2%), Urgench (4.5%) and Koshkopyr (4.8%) districts differ in low contributions. Unfavorable infrastructural security and undeveloped production base of the territories creates a one-sided focus of production and does not allow for the expansion of production capacity, which defines them as areas with a low level of industry. The main specialization of the districts is ginning production, production of building materials and the production of essential foodstuffs. Irrational use of natural resource potential in the districts leads to unsatisfactory supply of needs of the population.

Thus, the effective use of the advantages of the region (agricultural potential, labor resources, developed tourist potential) will enable the growth of regional production of food, production of building materials, repair of agricultural equipment, directly by small business. The presence of large enterprises in the region in solving problems of technical and technological renewal in accordance with international standards, the formation of a highly developed infrastructure can be prerequisites for creating “growth points” in the form of industrial clusters and accelerated development of related industries.

3.1 Factors of sustainable production growth in the region's industry

The industry of Khorezm region is characterized by a relatively low level of production. Factors such as remoteness of the territory, limited mineral deposits, low production potential, expressed by the level of capacity utilization due to equipment wear and raw material shortages, affect the one-sided direction of production (ginning), unbalanced territorial distribution of industrial facilities, lack of competitiveness of goods in the domestic and foreign markets, and unsatisfactory level of self-sufficiency of the population with consumer goods.

Meanwhile, the region has resources, unused reserves and advantages, which in the future may be **prerequisites and potential sources** for sustainable industrial growth:

- The production base is characterized by the presence of large industrial facilities engineering (Khazarasp district, Urgench city), ginning (Bagat, Gurlan, Koshkopyr, Khazarasp, Khanka, Shavat, Yangiarik, Yangibazar districts), flour (Bagat, Urgench, Khanka, Shavat districts), oil and fat (Urgench city) and food (Urgench, Khazarasp districts) enterprises, as well as Tuyamuyun State District Power Plant (Khazarasp district), is the core of the industrial production of the region. In the conditions of an accelerated process of modernization, technical and technological re-equipment, it will be possible to resolve issues of increasing the level of capacity utilization, as well as expanding local production, including in cooperation with small business.

- Formed specialization of the cotton industry, due to favorable conditions for the cultivation of raw cotton (Gurlan, Bagat, Khanka, Shavat, Koshkopyr, Urgench districts), creates opportunities for the formation of textile production, mainly finished types of products connected in the value added products chain starting from cotton production -fibers

- The rich potential of agricultural resources based on the cultivation of fruits and vegetables¹⁰ (Shavat, Urgench, Khiva, Khanka, Bagat districts) and the development of animal husbandry (Urgench, Khazarasp, Shavat, Koshkopyr, Bagat districts) allows local food production based on deep processing. Thus, with the development of the processing industry, there is the possibility of producing canned fruits and vegetables, juices and mashed potatoes, tomato paste, dried fruits, various seasonings for soups and main dishes, meat products and canned foods, powdered milk and condensed milk, ice cream, etc.

- A distinctive feature of the region is the natural germination of licorice on its territory, which has great value, the processing of which will allow the production of a wide range of products - medicines, paints for textiles, various additives and semi-finished products for the food industry (Yangibazar, Gurlan, Shavat districts).

- Traditions and experience of local producers in the primary processing of wool and leather, formed along centuries are the basis for the development of deep

¹⁰ The unique climatic and geographical conditions of the Khorezm region make it possible to specialize agriculture in growing highly vitaminized and mineralized apples (Karvak apples), grapes, figs, apricots, tomatoes, yellow carrots, melons, pumpkins, rice, onions

processing up to the production of carpets and rugs, woolen blankets, woolen scarves (Koshkopyr, Bagat, Khazarasp, Yangiarik districts), as well as leather belts, bags, jackets and accessories (Gurlan, Bagat, Khazarasp districts) of high quality and low net cost with using new equipment and technologies.

- The presence of handicraft industries for carpet weaving, sewing on silk, painting, metalworking, woodworking, souvenirs, basket weaving (Khiva, Yangiarik, Koshkopyr, Khanka districts) and the propensity of the population for entrepreneurship will contribute to the rapid introduction of innovations and development of integration organized forms of industrial production.

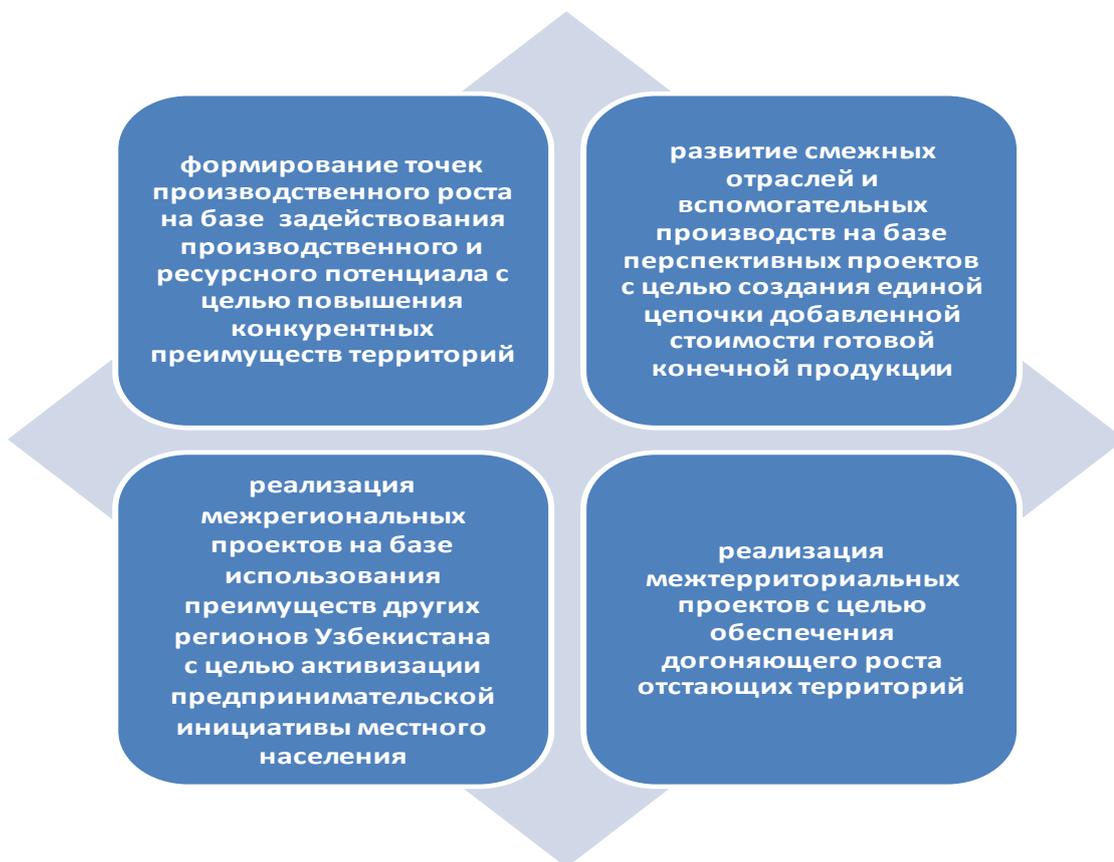
- Closeness to the regions (Republic of Karakalpakstan, Navoi and Bukhara regions) of Uzbekistan, which has advantages which are limited in the Khorezm region, is a reserve for the use of mineral deposits, as well as the developing logistics center of the FIEZ “Navoi” on the basis of mutual cooperation in the implementation of inter-regional engineering projects, production chemical products and building materials.

Efficient use of existing reserves, potential and competitive advantages will enable the expansion of production capacities, the development of new non-traditional for the territory medium and high-tech industries, which, in turn, will increase the industrial potential of Khorezm region.

Taking into account the potential and competitive advantages of the Khorezm region, the prerequisites are identified, the main directions for the long-term development of the region are identified. (figure 2.4.1.1, table 2.4.1.4):

Figure 2.4.1.1

Strategic directions for the development of industry



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

- development of related industries and auxiliary production, mainly in less developed and resource-secured territories, on the basis of marked growth points will allow combining the production process into a single value added chain and, thereby, expanding the range of goods produced and diversificate local industry (localization of production in Bagat, Khanka, Yangiarik, Shavat districts, ready-made garments and knitwear - in the city of Urgench, Khiva, Koshkopyr, Yangiarik, Khanka, Khazarasp and Urgench districts);

Table 2.4.1.4

Perspective directions of territorial development of industry

Name of city and districts	Creating growth points	Development of related industries	Implementation of interregional projects	Implementation of interterritorial projects
Urgench city	△	▲	○	□
<i>districts:</i>				
Khiva		△	○	
Bagat	▲	▲	●	□
Gurlen		△	●	□
Koshkopyr		△	○	□
Khazorasp	▲	▲	○	
Urgench		△	●	■
Khanka		▲	●	
Shavat	△	▲		■
Yangiarik		△	○	□
Yangibazar		△	●	■

Creating growth points:

- ▲ – the large extent
- △ – the less extent

Development of related industries:

- ▲ – the large extent
- △ – the less extent

Implementation of interregional projects:

- – the large extent
- – the less extent

Implementation of interterritorial projects:

- – the large extent
- – the less extent

- implementation of interregional projects for the purpose of resource and infrastructure support of the territories and activation of the entrepreneurial initiative of the local population based on close cooperation with other regions of the Republic of Uzbekistan (the Republic of Karakalpakstan, Navoi and Bukhara regions) with distinctive competitive advantages. Interregional cooperation will give an "impetus" to the accelerated development of mechanical engineering, the production of chemical products, and building materials (Gurlan, Yangibazar, Yangiarik, Koshkopyr, Urgench, Khanka, Bagat, Khazarasp districts);

3.2 Perspective directions of territorial development of industry in the region

The production potential of the Khorezm region predetermines the possibility of generating new “growth points” using new spatial development approaches. The formation of "points of growth" implies the formation of centers, industrial development zones with the "effect of growth impulse" and capable of exerting a stimulating effect on the development of neighboring territories. In this case, on the basis of concentration, specialization of production and capital, competitive productions will be implemented in promising projects, mainly export oriented, emerging in territorial complexes and clusters.

Creating production growth points allows to ensure growth in the productivity of industries, create conditions for increasing production and innovation potential, stimulate entrepreneurial initiatives and small business development (figure 2.4.1.2). The basis for the development of growth points are the industries that form the basis of the perspective industry specialization in the region and have a high potential in the field implementing technics and technology with subsequent output of products to the world market. On this basis, the assessment of the competitive advantages of territories allowed to determine the prospect of creating a tendency for industrial growth.

➤ As in most regions of the republic, Khorezm region has the advantage of deep processing of cotton fiber, which creates opportunities for the successful development of textiles. The prerequisites and reserve for creating “growth points” for the textile industry, mainly in Bagat and Shavat districts, are:

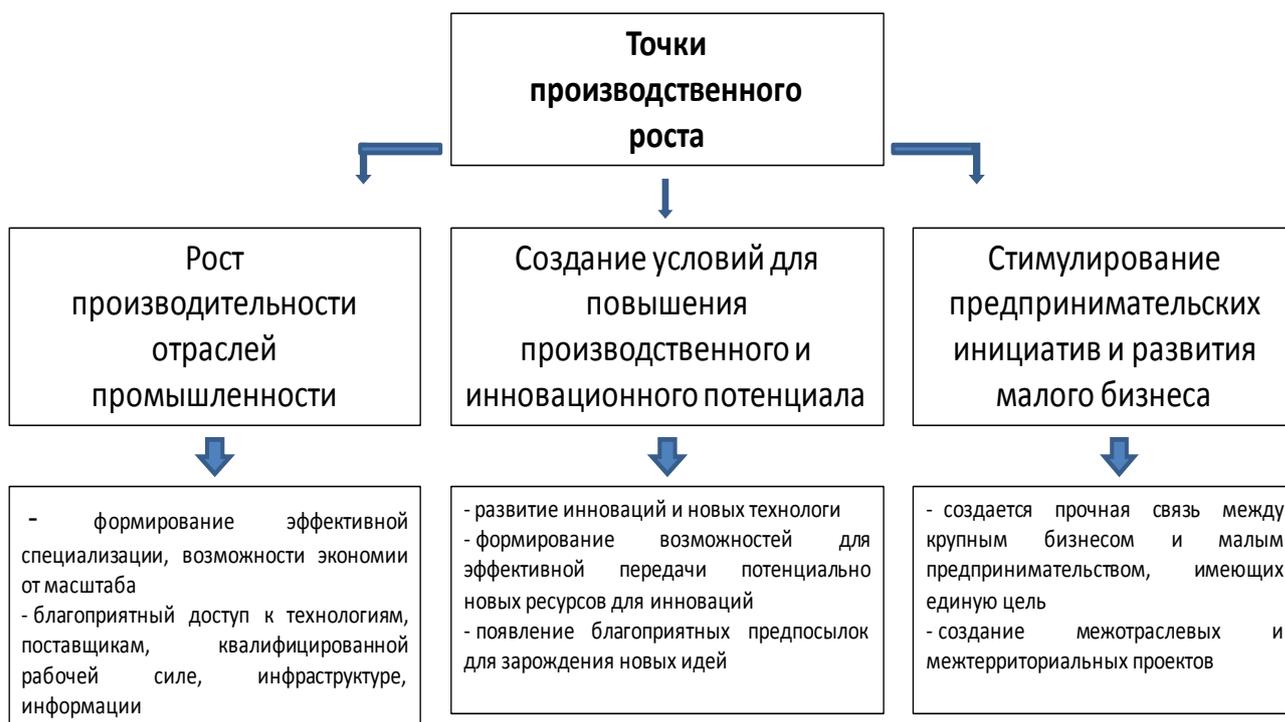
- a high level of production base, characterized by the presence of large enterprises of the textile industry, such as "Bagat-textile" JVC, "Uztex Shovot" JVC, "Cotton Tex" LLC, "Kobo Tex" LLC, "Darital Tex" LLC, and ginning enterprises producing export-oriented products;

- Rich resources of agricultural raw materials (raw cotton, silkworm cocoons, wool, skins));

- The presence of vocational colleges with relevant areas (engineering and technology for sewing and knitting production, designers, fashion designers, etc.), personnel and educational potential and high population density, especially in rural areas;

- Favorable security of the territories by railways and roads (A-380), availability of production platforms, closeness to end sales markets.

Features of the creation of reference points of industrial growth



Key projects are: expansion of production capacity and the creation of new productions for the production of cotton yarn, knitted, wool and leather finished products, etc.

The development of the textile industry in these areas is possible in the form of creating textile complexes that allow diversifying the range of goods combined into a single production and technological chain of competitive products, ranging from the purchase of raw materials to the marketing of finished products.

➤ The established branch of GM Uzbekistan (Khazarasp district), taking into account the dense population, infrastructure and the availability of the production base of the territory in the long term, will serve as a point of growth for the mechanical engineering industry not only in the Khorezm region, but also in the territories of the South Amudarya and Zarafshan economic regions. Prerequisites and reserves for the creation of growth points of the mechanical engineering industry, mainly in the Khazarasp district, are:

- powerful production base, due to the activities in the industrial zone of the branch of GM Uzbekistan (Khazarasp district), producing cars that have wide demand in both domestic and foreign markets;

- high labor productivity in the mechanical engineering industry, allowing to increase the incomes of the population, as well as create new competitive advantages, as a basis for the transition to high-tech and knowledge-intensive production;

- the possibility of the development of a localized production of components and spare parts by small enterprises of the regions in close connection with big

business, which is why there is a diversification of the mechanical engineering industry;

- favorable provision with production and social infrastructure facilities (roads, production facilities, power supply, etc.), availability of production platforms, creating the possibility of developing small businesses in conjunction with large enterprises;

- the presence of highly qualified personnel, as well as the tendency of the local population to acquire technical specialties;

- solving problems of employment, ensuring the density of the district and preventing the leakage of specialized personnel.

Key Projects are: creation of production of cars, components and spare parts for them.

The implementation of this direction in the long term perspective will be carried out in the form of creating an engineering cluster, which will create conditions for the transition to a higher technological structure, conquer new niches and maintain the position of the mechanical engineering industry in foreign markets.

➤ In the future, the development of electronics and the electrical industry will become one of the key areas of the industry, the basis of high-tech products. The level of development of electronics and electrical engineering will determine the industrial potential of the territory and the ability of its conditions to improve the quality of life of the population through the intellectualization of labor and the expansion of information and communication capabilities. Prerequisites and reserves for the creation of growth points of electrical production, mainly in the city of Urgench are:

- availability of relevant production potential, entrepreneurial activity, educational potential and human resources, infrastructure facilities and availability of retail outlets

Key Projects Are: organization of production of electrical goods, solar collectors, televisions and monitors, etc.

In the long term, this direction will be implemented in the form of creating large-scale projects of republican significance, which will not only cover the growing needs of the region, but also supply local products to neighboring regions of Uzbekistan and abroad.

The implementation of the direction for the creation of growth points will be carried out in stages (table 2.4.1.5).

Stages of the formation of growth points

Period	Kind of activity	Activities and Events
Stage – I (2018-2019 yy.)	organizational	<ul style="list-style-type: none"> - modernization and technical re-equipment of existing production facilities ("Bagat Textile" JVC, "Cotton Tex" LLC, "Kobo Tex" LLC, "Darital Tex" LLC, "Uztex Shovot" JVC and Cotton-Cleaning Enterprises, Khazarasp branch of "GM Uzbekistan" and Shavat Bearing Plant); - the formation of an appropriate production, transport, market, engineering and social infrastructure; creation of an experimental production center on the basis of Urgench State University (Urgench) with the aim of close cooperation with the business; - introduction of local raw materials into the production process, including other regions of Uzbekistan; - wide involvement of small businesses and households in the production process based on the use of low-power productions and inactive objects; - assessment of the availability and condition of storage facilities, storage of excess volume of products, elimination of the causes of this circumstance; - studying the internal and external consumer market of local products, identifying the most significant types of products and developing projects for their release; - 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 preparation in local colleges, universities, universities of the capital and neighboring regions.
Stage – II (2020-2025 yy.)	industrial	<ul style="list-style-type: none"> - implementation of promising republican and regional projects with the attraction of foreign capital, funds of 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; - personnel training in advanced organizations of the country and abroad on a contractual basis
Stage – III (2025-2030 yy.)	innovational	<ul style="list-style-type: none"> - introduction of advanced technologies for the production of goods with different functional properties (fire-resistant, bioactive, etc.), providing enhanced comfort and attractiveness of products; - formation of an innovative infrastructure based on close cooperation of business, entrepreneurship, universities, research institutes of the Khorezm region and the city of Tashkent with the aim of conducting scientific, technical and innovative developments.

In order to achieve successful implementation of this direction it is necessary to take into account the solution of the following tasks:

- activation of low-power and inactive industries through the modernization and expansion of the previously established production base, as well as the provision of industrial and social infrastructure facilities;
- efficient use of natural resource potential (agricultural, labor, etc.);
- diversification of production on the basis of deepening processing production with bringing the final finished product;
- stimulation of the development of small enterprises and microfirms, family business for the production of finished products based on deep processing of raw materials;
- formation of competitive regional production through widespread introduction of modern equipment and technologies, know-how, etc.;
- attraction of investment resources, including funds of the population and foreign partners for the development of regional production;

- solving personnel problems, meeting the needs of the industry for highly qualified specialists in a professional context, managerial personnel, main and auxiliary workers in all technological areas; training highly qualified specialists who are able to professionally solve problems in the development and production of modern and promising products, their training in a multi-level higher education program, including good fundamental training, sufficient professional skills during industrial, engineering, technological and pre-diploma practice;
- Stimulating the creation of branded products, contributing their promotion both in the consumer market of the region and beyond; creation of an information environment conducive to the development of cooperative ties between enterprises of the industry (holding a conference of suppliers and other events) and the development of related industries;
- Increasing control over the quality of products based on the implementation of ISO standards at enterprises will increase the competitiveness of manufactured goods; conducting continuous monitoring of internal and external markets for goods, changes in market conditions in order to enhance the benefits of the industry;
- provision of technical and advisory assistance for the modernization of production, the selection of projects for imitation-innovative development, the provision of various benefits and preferences for enterprises-exporters; assistance in finding foreign partners and investors;
- development of a constructive partnership of domestic producers and developers with global industrial groups;
- strengthening the role of R&D in the development of production technologies.

3.3 The main directions of development of industry in the region in the future

Along with the formation of "points of growth", the development of related industries and auxiliary production is of current importance. Due to the fact that today the regional production is focused on the primary processing of raw materials and the underdeveloped production of finished products, the region faces the question of creating related industries and auxiliary production based on the expansion of local entrepreneurship. Using this approach will allow to unite cooperation ties between large industrial associations and small business in the form of organization of production along the value added chain, ranging from the purchase of raw materials to the sale of finished competitive products. By the one hand this will increase the competitiveness of products, by the other hand it will also provide a synergistic effect for expanding the spatial scale of industrialization in solving the primary task of deepening processing production with a high degree of readiness.

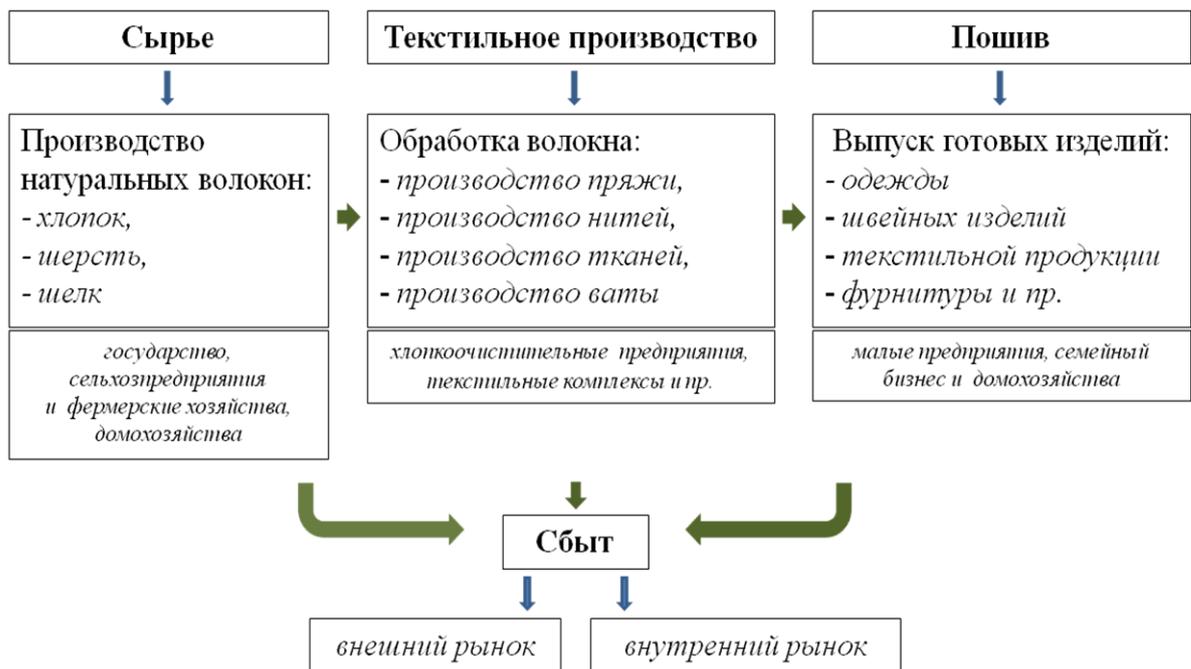
In the future, within the framework of the formed textile complexes in the Bagat and Shavat districts, the creation of auxiliary production in the Khiva, Khazaras, Koshkopyr, Khanka, Yangiarik, Gurlan, Yangibazar districts is favorable. In addition, the implementation of the project on the formation of a

machine-building cluster will enable the development of a localized production in the city of Urgench, Bagat, Shavat, Khanka, Urgench, Koshkopyr and Yangiarik districts.

Thus, the development of related and auxiliary production based on textile complexes in the future will contribute to expanding the range of products of various types, united by a single production and technological chain of production, ranging from the purchase of raw materials to the sale of finished products and will give the opportunity to introduce innovations (figure 2.4.1.3).

Figure 2.4.1.3

Chain of value added textile complex



The main producers of related industries will be small enterprises, separate workshops of large business, households producing finished products. (figure 2.4.1.4).

Layout of adjacent and auxiliary production based on the creation of textile complexes



As part of the implementation of the machine-building cluster, the production of cars will be carried out in close cooperation with the enterprises of electrical, metallurgical, chemical, electronic, light and other industries that produce components and spare parts. Due to the multiplier effect, the mechanical engineering industry will ensure the introduction of high technologies and additional employment in related industries (figure 2.4.1.5).

In addition, the formation of a favorable environment and production base in Urgench city will allow the companies to master the production of products such as, televisions and monitors and other electrical appliances (Urgench), refrigerants and freezers (Khiva), low-voltage and high-voltage equipment, and transformers (Koshkopyr) and etc.

In turn, introduction of related and auxiliary production requires the solution of a number of tasks:

1. Studying the opportunities for the development of industries along the value added chain, starting from the processing of raw materials to the production of finished products that meet the requirements of the external market.

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 abroad, as well as participation in exhibitions, fairs, etc.

Layout of adjacent and auxiliary production based on the mechanical engineering cluster



1. The introduction of a new generation of technologies in the development of the release of goods; need to expand the use of domestic developments of energy-efficient technologies for the production of high-quality products.
2. A comparative assessment of the availability of relevant professionals and highly qualified (marketers, managers, etc.) personnel with the needs of enterprises in them; if necessary, prepare them in the base enterprises.
3. Formation of an appropriate production infrastructure, characterized by favorable access to road and railway links, to study the issue of creating specialized terminals in order to increase transportation, optimize delivery schemes for building materials, their loading and storage.
4. Creating a databank of investment projects based on local initiative, potential investors, carrying out consistent work on the feasibility study of projects, territorial and complex development of the region in the long term should be linked with spatial factors.
5. Increasing the capacity of the local processing industry (with the involvement of large enterprises, small businesses and home-based labor) based on the rational use of existing raw materials to saturate the local and interregional consumer goods market.
6. Creation of a data bank of highly qualified specialists for their involvement in the process of creating production facilities, the use of economic instruments for the return of qualified local specialists from other countries and regions
7. Stimulation of the organization and activities of small industrial zones and technology-innovative parks to enhance the development of small business and the development of local producers mainly in rural areas using inactive

industrial platforms and empty procurement organizations with the formation of a centralized system of water, gas and energy supply.

It is proposed to create small industrial zones in stages, mainly in the territories using inactive industrial platforms and empty procurement organizations with the formation of a centralized system of water, gas and energy supply (Yangibazar, Gurlan, Shavat, Khiva, Bagat districts) (figure 2.4.1.6). Taking into account the production potential in the long term, on the territory of small industrial zones of Shavat and Bagat districts, it is necessary to create technology-innovative parks that have experimental laboratories and promote the introduction and establishment of new technologies.

Figure 2.4.1.6

The scheme of creation of small industrial zones in the territories



In the future, around such zones it is planned to create facilities for service and personnel training. Thus, compact placement of small enterprises, auxiliary and service facilities has the advantage in creating economic and organizational conditions for the stable functioning of small businesses, reducing production costs and ensuring employment of the population, rapidly spreading and adopting modern technologies and ideas, solving infrastructure issues and establishing cooperative connections.

The possibility of effective development of industry in the region is also associated with the strengthening of regional competitive positions through the implementation of inter-regional and inter-territorial projects, mostly in less developed territories with limited funds and resources. The implementation of

interregional projects is aimed at resource and infrastructure support of the territories and activation of the entrepreneurial initiative of the local population based on close cooperation with other regions of the Republic of Uzbekistan (the Republic of Karakalpakstan, Navoi and Bukhara regions) with distinctive competitive advantages.

Such an opportunity lies in the rational interregional supply of natural resources, raw materials, materials for the production of goods by reducing their production costs and increasing competitiveness on the regional and global markets; the formation of a unified scientific and educational potential to accelerate innovation processes; the development of interregional marketing centers as the main link in wholesale trade for large economic regions.

Interregional cooperation will give an "impetus" for the accelerated development of mechanical engineering (Urgench city, Urgench district), the production of chemical products and building materials (Khiva, Bagat, Gurlan, Koshkopyr, Khazarasp, Khanka, Yangiariq and Yangibazar districts).

Taking into account the fact that Khorezm region does not have a rich presence of mineral deposits, it is expedient to solve the issues of saturation of the domestic market with building materials due to the implementation of interregional projects based on the extensive use of the natural resource potential of the Republic of Karakalpakstan. So, using lime deposits (Karataw) and cement raw materials (Jimurtaw) in the region, it is possible to start producing lime, reinforced concrete products, concrete asphalt (Bagat, Gurlan, Koshkopyr, Yangiariq, Yangibazar, Khanka, Khazarasp districts), which will allow not only to expand the range of local products, but also to increase exports (to Kazakhstan). In addition, close cooperation with the Ustyurt gas-chemical complex will allow to learn the production of polypropylene products, synthetic carpets, synthetic detergents, bitumen based on the processing of secondary raw materials (Gurlan, Yangibazar, Khanka districts).