International Journal of Psychosocial Rehabilitation, Vol. 24, Issue 04, 2020
ISSN: 1475-7192

ANALYSIS OF REGIONAL INDUSTRIAL INNOVATION LEVEL AND COMPETITIVENESS (FOR EXAMPLE, TASHKENT REGION)

[1]Batirova Nilufar Sherkulovna

ABSTRACT--*The article focuses on the development of a system of objective assessment of regional industrial activity and their impact on socio-economic infrastructure. It is recognized that the feasibility of resource development in the region is recognized in determining the innovative development strategy and innovative development strategies of the region. Analyzes the possibilities of preserving the existing industrial and technological potential in the process of innovative development of industry in Tashkent region. The conclusion lists the trends in the development of innovative products in the region.*

Keywords-- *Regional, innovation, technological innovation, modernization, science and technology, export, production, scientific research, experience*

I. INTRODUCTION

Innovative activity of industrial enterprises of the region is the process of creation, use and introduction of scientific, technical, organizational, management and other innovations of enterprises. The process of modernization and creation of scientific and technical innovations is of great importance in the innovative development of the regional industry. In an economy based on innovative activities, the cost of industrial production decreases and the structure of exports changes. Each country strives to increase the efficiency of the national economy through the creation of technological and modern industries. The region has the opportunity to create innovative goods that will enhance and strengthen the industrialization process and increase export potential. Innovative development of the regional industry reflects the transition from a traditional society to a society based on industrial, large machine-building and rational management of social processes.

Implementation of strategic changes in the innovation-oriented industries for the country to take its place in the world market also has its impact on the region. Currently, the region is changing from the region's only raw material exporting region to the area where innovative finished goods can be produced. The overall situation in the world and the role of the country and region in the distribution of international labor are assessed by the development of high-tech industries, the constant renewal of production processes, the proper organization of production and management processes, and the creation of new products. The key tools for capturing and maintaining markets are

[1] *Senior lecturer of International Islamic Academy of Uzbekistan., n.batirova@iiau.uz*

DOI: 10.37200/IJPR/V24I4/PR201428
Received: 22 Sep 2019 | Revised: 13 Oct 2019 | Accepted: 15 Jan 2020

innovative, dynamic organizational and technological competition tools that reduce all sorts of transformational costs and enable them to save resources in the process of consumption and consumption.

II. METHODS

The theoretical and practical aspects of innovative development in the region were compared during the article writing, and suggestions and recommendations were made based on the analysis of open statistical data. General research methods were used.

III. LEVEL OF STUDY

Under current competitive conditions, new scientific knowledge, ideas, discoveries, transformations, as well as perfection of existing technologies to produce new products in accordance with market requirements are important. For this purpose, industrial enterprises in the region must have the innovation potential to achieve innovative goals. However, if the potential for effective use of this potential is not determined in a timely manner, the chances may be realized. Paul believes that special attention should be paid to staffing in the development of innovative potential in industries. Lt. Smith Dor recounts that the resource factor is very important in evaluating the innovative development of industrial enterprises. According to S. Kochetkova, innovation potential means the total ability of the available resources to achieve innovative goals of industrial sectors. Such resources include personnel, production and investment resources. In A. Nikolaeva's work, innovation is defined as a system of factors and conditions necessary for the implementation of innovative processes. Assessment of the innovative potential of the region based on the evaluation of its innovative potential. A. Lewis, R. Solou, A. Voltes, Gunin V.N. , Barancheev VP, Maslennikova NP, Mishin VM, B. Begalov, H. Mukhitdinov, A. Kenjabaev in terms of a systematic approach to the concept of innovative potential and determine the level of readiness to achieve the goal, ie innovative strategic change program or project readiness level. The region's potential is said to consist of two components: readiness for sustainable industrial production and innovation.

IV. THE MAIN PART

In recent years, high-tech and soft-knit technology services have been developing in many developed countries. These industries are based on mental work, and the increasing contribution of this group to the industry shows that high-tech industries in different regions are developing. Therefore, the enhancement and deepening of the innovation process has an important role in the development of each region. At the same time, the favorable economic conditions, such as the feasibility of investment projects, the availability of sufficient gold reserves to support the stability of the national currency contribute to this.

Like any other region, the Tashkent region's economy is difficult to achieve without modern technology, and requires the effective use of the region's intellectual potential, the formation of a unified national innovation system aimed at addressing priority issues of socio-economic and scientific-technical development.

DOI: 10.37200/IJPR/V24I4/PR201428
Received: 22 Sep 2019 | Revised: 13 Oct 2019 | Accepted: 15 Jan 2020

In recent years, a number of programs on modernization and technological renovation of the most important industries and large enterprises of the region have been implemented. Cotton ginneries have undergone reconstruction and technical re-equipment, increased fiber output, improved product quality and increased labor efficiency, set up packaging line in oil and fat industry, acetylene extraction, gas waste disposal, Introduction of modern technologies for the synthesis of hydrogen chloride and salt alkali, modernization of shops and production of ammonium sulfate, development of metallic products in ferrous metallurgy. The enlarged areas are expanded, projects for the manufacture of rods and fittings profiles, welding electrodes have been implemented.

Innovative development of the regional industry not only reduces the cost of industrial production, but also significantly changes the structure of exports. It is noteworthy that the role of human factor in the production process has been increasing lately. This is primarily due to the new generation of manufacturing and technology processes, and as a result, the role of the employee has changed dramatically in the manufacturing process: from the hired worker to the active creative person. New technologies require a wide range of skills, scientific knowledge and intellectual skills. Without new types of workers, it is difficult to implement innovative technical factors. Development of professional qualities of the person, increase of the level of general culture along with modernization of production contribute to the general economic development. An analysis conducted in many countries reveals a high correlation between human capital and innovative development.

Innovative process, that is, the process of creating, disseminating and consuming scientific, technical, organizational, managerial and other innovations by economic entities, is the core of the process of innovative development of the economy and society as a whole. In this regard, it is advisable to develop high-tech industries.
The region has its own base for extracting and processing of raw materials, heavy industry, electronics, chemical and petrochemical industries, textile, aircraft manufacturing and tractor industry. This means that we have come to the stage of developing the knowledge economy, with a focus on the wide use of the results of intellectual labor in the further development of these industries. In this regard, it is advisable to study the technological structure of industrial sectors.

Table 1: Technological structure of industrial production in developed countries, Uzbekistan and Tashkent region

Reproduction	**Contribution to developed countries**	**Contribution of Uzbekistan**	**Share of Tashkent region**
High-tech production	19	1,1	0,6
Medium high tech production	28	27,3	16,1
Medium low tech production	21	42,1	62,7
Low technological production	32	29,5	20,6

DOI: 10.37200/IJPR/V24I4/PR201428
Received: 22 Sep 2019 | Revised: 13 Oct 2019 | Accepted: 15 Jan 2020

World practice shows that the industrial complex is the core of innovation and the basis for economic growth. Therefore, it is necessary to create favorable conditions for the development of high-tech industries in the region. Stage-by-stage formation of new competitive products using their own scientific, technical and production-technological potential and use of foreign experience on the basis of high-tech industries, production of high-tech products in developed countries with the region's own innovative potential. Utilize foreign scientific, technical and production-technological potential in the regional economy through development of licenses, purchase of high-tech licenses production of new generation products that are in demand in foreign markets. Technological innovation, based on new principles and envisaging change of administrative management, is a key element of regional reforms. The high scientific potential of the region is largely ignored due to the low efficiency of innovation processes. Effective use of the region's intellectual potential requires the formation of a unified regional innovation system aimed at addressing priority issues of socio-economic and scientific-technical development.

Increasing the competitiveness of the region's economy can only be achieved through joint efforts to modernize the economy, develop high-tech industries, and promote the demand for high-tech products. At the same time, the main objective of the innovation policy is to increase the technological level and competitiveness of production, to provide innovative products to the domestic and foreign markets, to replace the imported products in the domestic market and to bring industrial production to the stage of sustainable economic growth. To do this, choose rational strategies and priorities for the development of innovation, increase the demand for scientific and technical innovations of industrial production, mobilize free capital to finance technological modernization projects, focus organizational measures and resources on the priority areas of innovation development, preserve production capacity. and need development.

The demand for knowledge and the share of high-tech products in the total volume of production indicate the technological structure of the region's economy. Technological specificity is a specific type of production relations with the special economic system. The combination of these elements makes the social and economic relations, the system of lifestyles unique.

The analysis of high technology development levels in the regional industry should be based on the UN classification, based on the experience of the world countries in achieving the level of technology development and the innovative development features of the existing industries in the country. Based on the classification of high-tech industries in the world, one can say that the region has the most powerful industry producing science-intensive products and services. However, a number of high-tech and high-tech industries, such as chemistry, machine-building, electrical engineering, pharmaceuticals, make up a low percentage of the total, indicating the need for effective use of technological and scientific infrastructure in the development of the region's industry. Therefore, the development of knowledge-intensive industries, the production and export of science-intensive products, and the creation of large-scale jobs in the industry with the involvement of scientific and technical personnel are essential. In this regard, it is important to strengthen cooperation with venture capital companies and companies engaged in high-tech production.

The region is currently focusing on increasing the share of high-tech products in industrial production. The experience of developed countries is used in the production of high-tech products. The share of high-tech industries

DOI: 10.37200/IJPR/V24I4/PR201428
Received: 22 Sep 2019 | Revised: 13 Oct 2019 | Accepted: 15 Jan 2020

in the region in 2010-2019 remains virtually unchanged in the structure of industrial production. However, the growth rate of high-tech products over the past three years has led to a decline in the share of these products in GRP. The downside is that the share of the low-tech industry in the industry is declining from year to year.

Table 2: Development of a network of high and medium high technologies in the region

Industrial sectors		Industry share in industry, %				
		2010	2015	2016	2017	2018
High-tech production	Uzbekistan	1,6	1,3	1,5	1,5	1,1
	Tashkent	0,1	0,9	0,9	0,8	0,6
Medium high tech production	Uzbekistan	20,6	20,8	18,3	22,6	27,3
	Tashkent	15,7	13,9	13,2	16,2	16,1
Medium low tech production	Uzbekistan	45,3	38,4	37,9	39,3	42,1
	Tashkent	53,8	47,7	49,6	54,5	62,7
Low technological production	Uzbekistan	32,5	39,5	42,3	36,6	29,5
	Tashkent	30,4	37,5	36,3	28,5	20,6

During the period studied in the production of high-tech products, only pharmaceuticals production increased significantly, and the share of manufacturing in the aviation industry, chemical fiber production, computing equipment, optics and optical-mechanical devices and apparatus was negligible. is one of the major disadvantages. As can be seen from the table above, the industrial complex of the Tashkent region is multidimensional, and analysis shows that industrial enterprises in the region belong to different technological units. However, according to the data, the majority (2/3) of the industrial sector accounts for the low-tech manufacturing sector. The industry of the region is gradually shifting from industry to industry. Of course, in accelerating the movement of the region from one stage to another, it is desirable to conduct a more in-depth analysis of the region and to assess the region's innovative potential. Each region may have several factors that hinder innovation. One of the main reasons is the underdeveloped infrastructure of infrastructure, lack of market information, the need for new innovations, and the lack of skilled personnel, new technology and resources, on the other hand. Another problem is the high cost of innovation and high demand for new products in the face of high economic risks.

The regional industry's innovative potential is assessed based on the number of research staff, financial costs for research and innovation. The Innovation Potential Index of the region was first published in 2001 at the World Economic Forum based on 6 indicators.

1. Number of registered patents per 10,000 people.

2. The number of scientists and engineers involved in research.

3. Quality of innovative policies (intellectual property protection, tax incentives and subsidies for research, competition control).

DOI: 10.37200/IJPR/V24I4/PR201428
Received: 22 Sep 2019 | Revised: 13 Oct 2019 | Accepted: 15 Jan 2020

4. Creating innovative clusters - cluster development status, local competition level, local consumers.

5. Quality of innovative infrastructure - availability of research organizations and system of training of technical personnel, availability of venture capital for implementation of technically complex projects.

6. The level of enterprise innovation activity - the impact of innovation on the productivity of new products as a factor of increasing the competitiveness of enterprises.

:The region received a total of 40 patents in 2018, including 3 for utility models and 7 for inventions. In the year under review, patented projects do not include industrial designs. However, 75% of the patents obtained are agricultural. The development of new technologies and software by the region plays an important role in the volume of scientific research and experimental design. The region has received a total of $ 52,965 million in 2018. UZS 1570 research works were carried out by 59 organizations. But those figures have declined in comparison to 2017. 27.5% of the total volume of development works in the country falls on the industry (15.7% by the number of developments). In 2018, there was no organization engaged in research and development activities in the hi-tech industry across the country, which also indicates that the region is only 0. Pleasant is the growing number of organizations engaged in research and development.

Table 3: The number of organizations engaged in research and development in the region and the amount of work done

	2014		**2015**		**2016**		**2017**		**2018**		
	Organization (s)	**Volume of work (thous. Soums)**	**Organization (s)**	**Volume of work (thous. Soums**	**Organization (s)**	**Volume of work (thous. Soums**	**Organization (s)**	**Volume of work (thous. Soums**	**Organization (s)**	**Volume of work (thous. Soums**	**Number of jobs (units)**
Total	26	20478,4	31	24667,9	39	31543,2	39	55843,1	59	52965,3	1570
Scientific research	24	18071,8	25	22846,2	23	25080,2	23	50457,7	46	40926,1	1129
Design and technological work	4	542,2	2	180,4	3	873,7	3	3204,5	8	2726,9	28
Experimental samples, batch items	2	321,1	3	613,5	4	750,9	4	483,5	6	945,9	14
Design works for construction	1	67,4	2	204,0	1	80,8	1	98,3	4	5922,7	93
Scientific and technical services	2	1475,9	5	823,7	19	4757,5	19	1509,2	13	2604,3	306

DOI: 10.37200/IJPR/V24I4/PR201428
Received: 22 Sep 2019 | Revised: 13 Oct 2019 | Accepted: 15 Jan 2020

However, in the structure of completed R&D, the project contributes less than the volume of R&D, experimental design, and technical research. About 78% of organizations working in this area are scientific research organizations. The other organizations involved in the remaining 22%.

Of the organizations performing research and development activities in the country, only 3.7% account for the industry. The volume of research and development activities in the industrial sector accounted for 27.6% of the total national volume. This shows that this indicator is quite low in the region. In the Tashkent region, 55% of research and development activities are related to agriculture, and 27% to technical science. Research and experience account for the bulk of the design costs - 71%. Equipment costs are only 2%. Of the total funding allocated for research and development activities, 69.3% came from the state budget, 27% from own funds, and 0.03% from foreign sources. 32% of research and development staff are over 50 years old.

Table 4: New technologies and software provided, obtained and created by organizations in the region

Years	**2014**	**2015**	**2016**	**2017**	**2018**
It was created	4	13	36	29	13
Results of research and development	2	4	6	5	5
Equipment purchase	-	7	18	15	8
Patent Law	2	1	2	-	-
Software	-	1	3	2	--
Taken from this	19	28	25	40	49
Equipment purchase	4	12	18	20	49
Software	15	14	3	19	-
Results of research and development	-	1	5	-	-
Given, from this	2	4	2	5	5
Results of research and development	2	4	2	5	5

As can be seen from the above results, new industrial technologies do not contain industrial designs at all. Much of the new technology is focused on research and development results and the purchase of equipment.
In 2018, there were 49 new technologies, 13 of which were created by the organizations, none of which were industrial designs or utility models. In the structure of new technologies and software created in the country, the industry-oriented technologies account for 3.4%.

A total of 5 organizational innovations and 12 marketing innovations have been introduced in the region, of which small-scale enterprises and microfirms have not implemented innovations in this area at all. Technological innovation has the absolute advantage of 291. Technological innovations are at the forefront of innovations in the country today. The region's share of technological innovations introduced in the region in 2018 is 11.7%. In parallel,

DOI: 10.37200/IJPR/V24I4/PR201428
Received: 22 Sep 2019 | Revised: 13 Oct 2019 | Accepted: 15 Jan 2020

the share of organizations that implement innovations is 12% of the national average. Of the total number of innovations in the country, 56% are in the industry, 44% - in the medium and low technologies, 10% - high and medium technologies. This may also be the case in the region. The impact of innovations made in the region over the past three years on average is estimated at 50-60% of respondents. For the innovative development of the region, new technologies and software products created in the region are currently inadequate as demand for external purchases is low.

Table 5: Innovative products, works and services of the region (mln. UZS)

	2014 year	**2015 year**	**2016 year**	**2017 year**	**2018 year**
Province	443067,3	800367	993662,9	1179511,2	2501418,0
From this,					
First time mastered,%	25,1	11,3	19,7	19,3	41,8
Mastered last year and previous year,%	54,3	71,1	69,4	36,6	18,9
Improved over the last three years,%	20,6	17,6	10,9	44,1	39,3
Contribution in the republic,%	6,3	10	9,3	6,4	8,7
Industry share in the republic,%	86,9	67,1	62,9	68,7	69,5

The volume of innovative products created in the region in 2018 made 8.7% of the republic's share. The share of innovative products and services produced in the country in the industrial sector accounted for 68.8% in 2017 and 64% in 2018, respectively. In order to increase the volume of innovative products and services, as well as to increase the share of high-tech industrial products in the region, the process of spending on technological, organizational and marketing innovations is effectively implemented in the region.

Table 6: Cost orientation of technological, marketing and organizational innovation in the region

№		2014	2015	2016	2017	2018
1	Total expenses, mln. soum	351217,5	547656,4	463908,9	295498,4	1055526,0
By composition						
2	Technological innovation,%	99,4	99,99	99,97	99,77	99,95
3	Marketing Innovations,%	-	0,002	0,01	0,01	-
4	Organizational innovation,%	0,6	0,008	0,02	0,22	0,05

DOI: 10.37200/IJPR/V24I4/PR201428
Received: 22 Sep 2019 | Revised: 13 Oct 2019 | Accepted: 15 Jan 2020

In 2018, 61.4% of total innovation costs were directed to the industry. In particular, 43% of total expenditures account for the medium to low-tech sector, and 5% for high- and medium-high-tech. Almost a quarter of total innovation costs are in the region, and 81% of total technological innovation costs in the country are in the industry. Because almost all innovation expenditures in the region (99.94%) are focused on technological costs. The major part of technological costs is directed to the purchase of machinery and equipment for the industrial sector.

Table 7: Structure and types of costs directed to technological innovation in the region

		2014	**2015**	**2016**	**2017**	**2018**
1	Total technological costs, mln	349003,3	547651,4	463782,4	294819,8	1054984,7
2	Contribution to GRP,%	2,5	3,3	2,3	1,3	2,7
Of these, by types						
3	Product innovation,%	64,7	34,4	60,8	42,2	22,2
4	Innovation in Processes,%	35,3	65,6	39,2	57,8	77,8
By composition						
5	Research of new production methods, new production processes	12,3	5,3	5,6	4,8	0,8
6	Design, design and other development of new production processes	1,8	4,2	2,7	0,6	0,3
7	Purchase of machinery and equipment	64,1	50,2	74,2	56,7	76
8	Acquisition of new technologies	0,6	8,8	0,66	0,09	0,04
9	Purchase of software	0,06	0,53	0,03	0,7	0,02
10	Other forms of production preparation for the introduction of new production methods, new production methods	0,6	0,1	0,11	-	-
11	Training and training of employees related to innovation	-	0,01	-	-	0,02
12	Marketing research	-	-	0,001	0,001	0,001
13	Other costs for technological innovation	20,54	30,86	16,7	37,1	22,8

DOI: 10.37200/IJPR/V24I4/PR201428
Received: 22 Sep 2019 | Revised: 13 Oct 2019 | Accepted: 15 Jan 2020

Very little (0.75%) is spent on production design, purchase of new technologies and purchase of software.

The source of funding is also important for innovative development of the regional industry. The regional budget may also be affected by this. The analysis shows that the main sources of funding for innovation costs are their own funds.

Table 8: Sources of expenditure on technology, marketing and organizational innovation in the region

№	References	2014	2015	2016	2017	2018
1	At its own expense	47,8	39,4	39,8	67,6	83,5
2	Foreign capital	-	0,24	-	15,3	4,7
3	For commercial banks	32,2	36,4	14,2	11,1	6,4
4	Budgetary funds	20,0	23,96	46	4,8	5,0
5	Other resources				1,2	0,4

The low innovation activity of local governments in financing innovation is noteworthy. This situation, like many other regions, indicates that the region is subsidized. Such a budget cannot be called a developing budget. It is not surprising, therefore, that most of the technological innovations are focused on the purchase of equipment. In order to enable local producers to surpass foreign competitors, the main costs of technological growth should be the acquisition of science, technology, training, and modernization of material and technical base. The table above shows a low share of technological expenditures on GRP, high rates of depreciation of fixed assets, and a deficit of skilled workers, causing braking in the implementation of industrial innovation. If one of the reasons for the innovative development of the region's industry is financial, the other is production. This is due to the high level of depreciation of fixed assets of industrial enterprises due to financial reasons. The low cost of renewal of fixed assets is a high cost. In order to increase the innovative potential of industrial enterprises, first of all, it is necessary to replace equipment with the most modern equipment. It is difficult to make innovative progress in the manufacturing process without the use of new technologies. Human capital is also the creator of new products. In modern economy there is a deficit of qualified personnel. Continuous development and encouragement of human capital will have a positive impact on the future of the enterprise.

V. RESULTS

The following main conclusions can be drawn from the above analyzes:

- technological innovation (99.94%), almost all of the innovation costs;
- State financing of technological innovation costs is insignificant (at 19.1% in the country in 2018);
- It is important to focus on innovation costs for new manufacturing processes, but those in the region make up very low costs (0.8%);
- the cost of innovations is only 3% of GRP (in the country this figure is 1% in 2018);
- All innovations in the region, introduced in 2018, are provided by the businesses themselves;
- the major part of technological costs is spent on the purchase of machinery and equipment (75.9%).

DOI: 10.37200/IJPR/V24I4/PR201428
Received: 22 Sep 2019 | Revised: 13 Oct 2019 | Accepted: 15 Jan 2020

VI. SUMMARY

According to international practice, the level of investment in high-tech sectors is higher than the growth rate of GRP, which is a key condition for intensive scientific and technical development. That is, the high growth rate of investment from GDP growth rates requires the need for financial support for basic innovation. The result of financial support will lead to the development of innovative diversification. The result of innovative diversification is the creation of network clusters. An important theoretical and practical aspect of economic development and diversification of export potential is its interaction with innovative development. At the beginning of the last century, the process of formation of innovative models of economic development in leading countries of the world economy was completed. The essence of such a model is that innovation becomes a key factor in the growth of competitiveness. In this regard, the issue of creating innovative clusters in the regions will be relevant. But innovation is not a driver of economic development in all countries. It is difficult for the technically backward sectors of the economy to suddenly become consumers of new technologies. Costs of research (R&D) and R&D are relatively small. The share of high-tech products in total industrial production remains low. Despite government support for research expenditures, this has not been enough to stimulate the innovation activity of enterprises. One of the main reasons for this is the presence of structural problems in the organization of innovation management at the enterprise level. Innovative development can be achieved only if the high-tech sector accounts for 17-20% of the gross regional product and the cost of R&D is at least 2.4% of GDP. Formation of a leading and innovative economy is the only way to achieve the goals. That is to create a high standard of living for the population and to achieve global leadership in the world. Procurement of ready-made equipment abroad is also detrimental to our own development. This is due to the technical and technological potential of the region, ie technological upgrades, with the import of technology and equipment.

Consequently, the region's economy needs to be sustained not only by the fuel and energy sector, but also by leading industries (mechanical engineering, automotive, light industry, etc.) in achieving the goal of preserving and developing existing industrial and technological potential in the region's innovative development. If a ton of crude oil generates between $ 20 and $ 25, a high-tech industry can produce up to $ 5,000 per kilogram of science-intensive products. Therefore, one of the main directions of the state policy in the process of innovative industrial development of the region is not only support of industrial production, but also financial support for the achievement of this strategy.

The development of innovative products in the region can be characterized by the following trends.

1. Insufficient funding for innovative activities. Resource opportunities for industrial enterprises in the region are one of the key factors in the development of innovative activities.

2. The small number of enterprises engaged in innovative activities. If in 2018, the total number of organizations producing innovative products was 373. The total number of enterprises in the region is 35,385, and the average number of enterprises producing innovative products is 1%.

3. Analyzes show that the large companies' flexibility to carry out innovative activities is considered high. One of the main reasons for this is the availability of financial resources and opportunities for intellectual staff. Small

DOI: 10.37200/IJPR/V24I4/PR201428
Received: 22 Sep 2019 | Revised: 13 Oct 2019 | Accepted: 15 Jan 2020

enterprises account for 89% of the innovative products manufactured in the region. However, large enterprises, which account for 11%, produce 51% of innovative products.

4. Low level of integration of participants in the innovation process. An important role in the effective implementation of the innovation system is the integration of knowledge, research and development activities with universities, universities, and investors, as well as their participants.

5. Low efficiency of innovation. Without the link between science and industry, it is impossible to develop high-tech industries and strengthen its position in the world market of science-intensive products. Therefore, it is necessary to create a favorable environment for the development of competitive production on the basis of innovative strategic development of key industrial sectors.

Therefore, the following characteristics should be characteristic of industrial sectors of the economy:

- Industrial sectors should be focused on mass production;
- industry sectors should not be completely dependent on raw materials, ie have a high share of value added;
- use of new technologies and support of demand for them;
- high labor capacity and a working group interested in the development of these sectors should be established;
- the networks that are the basis for modernization, first of all, should be oriented to the world market and then to the domestic market.
- formation of well-targeted clusters in the region: restoration of biotechnology, information technology, chemistry, energy and resource-saving sources;
- Reorganization of the personnel training system, changing the nomenclature of specialists in accordance with the chosen directions of science development;
-creation of scientific and technological centers, allocation of the equipment, equipped with the equipment for research activities for graduates of higher educational institutions.
- implementation of innovative export diversification, improvement of international specialization parameters of the region (ensuring investment in the manufacturing industry, increasing innovation activity in the country, minimizing transaction costs during international business, as well as improving logistics services, customs control, and ensuring effective participation in integration processes.).

REFERENCES

1. Кочетков, С. Методы стимулирования использования инновационного потенциала предприятия / С. Кочетков // Инновации. – 2005. – № 7.
2. Николаев, А. Инновационное развитие и инновационная культура / А. Николаев // Проблемы теории практики управления. – 2001. – № 5.
3. Гунин, В.Н. Управление инновациями: 17-модульная программа дляменеджеров. Модуль 7. Инновационныйменеджмент / В.Н. Гунин // – М.:Инфра-М, 1999. – С. 317.
4. Баранчеев, В.П. Управление инновациями / В.П. Баранчеев, Н.П. Масленникова, В.М. Мишин. – М.: ЮРАЙТ-Издат, 2009. – С. 124–125.

DOI: 10.37200/IJPR/V24I4/PR201428
Received: 22 Sep 2019 | Revised: 13 Oct 2019 | Accepted: 15 Jan 2020

5. Акаев, А. А. Исследование сценариев развития России в условиях мирового кризиса [Текст] / А. А. Акаев, В. А. Садовничий // Век глобализации. –№ 2 (4). – 2009. – С. 39–48.
6. O'zbekiston sanoati 2018. Statistik to'plam. O'zR Davlat statistika qo'mitasi. Тошкент 2018. 152 бет, маълумоти асосида муаллиф ҳисоб китоби
7. Тошкент вилоятининг статистик ахборотномаси. Тошкент вилояти статистик бошқармаси. 2018 йил январь-декабрь. Тошкент-2019. 114 бет.маълумоти асосида муаллиф ҳисоб китоби
8. 2018 йилда Ўзбекистон Республикасининг илмий-техникавий салоҳияти ва инновациялар ривожланишининг асосий кўрсаткичлари" статистик бюллетени. Давлат статистика қўмитаси, Таълим, соғлиқни сақлаш, фан ва инновация соҳаларида статистик кузатувлар бўлими. № 15-12. 25.05.2018. 339 б.
9. Губарев В.А. О возможности повышения доли инновационной продукции в экспорте России. Журнал об инновационной деятельности Инновации, 05/05/2013. Стр.100. 112 стр.
10. Черешнев, В.А. Социально-демографическая безопасность России/ В.А. Черешнев, А.И. Татаркин. – М.: Институт экономики УрО РАН, 2008.– С. 707.
11. https://cyberleninka.ru/article/n/seti-i-hozyaystvennaya-zhizn
12. http://diss.natlib.uz/ru-RU/ResearchWork/OnlineView/42759
13. https://www.fundamental-research.ru/ru/article/view?id=39952
14. N.Batirova. Features of Industrial development of the Tashkent region. The light of Islam, №4, 2019. p.314-321
15. Mohit Sareen, Pallavi Baghla, Payal Dhaka, Ena Mathur, Poonam Sobti, Sarang Khajuria. "Wheat Grass-A Wonder Herb." Systematic Reviews in Pharmacy 5.1 (2014), 4-5. Print. doi:10.5530/srp.2014.1.2
16. Rojapriyadharshini,A., and Dr.Kalaiselvi, S.(2017). Efficient and Enhanced Attribute-based Encryption for Cloud Computing. *Excel International Journal of Technology, Engineering and Management*, 4(1), 46-48.
17. Dhivyabharathi,A., and Dr.Kalaiselvi, S.(2017). Improved Network Intrusion Detection and Prevention. *Excel International Journal of Technology, Engineering and Management*, 4(1), 49-51.
18. Ramyadharshni, S.S., Pabitha, P. Topic Categorization on Social Network Using Latent Dirichlet Allocation (2018) Bonfring International Journal of Software Engineering and Soft Computing, 8 (2), pp. 16-20.
19. M, R., K, P., R, S. A Systematic Study on Cyber Physical System (2018) Bonfring International Journal of Research in Communication Engineering, 8 (1), pp. 1-4.

DOI: 10.37200/IJPR/V24I4/PR201428
Received: 22 Sep 2019 | Revised: 13 Oct 2019 | Accepted: 15 Jan 2020