

CURRENT TRENDS ESTABLISHMENT OF INNOVATION INFRASTRUCTURE IN THE INDUSTRIAL SECTOR OF UZBEK ECONOMY

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In order to create favorable conditions for attracting foreign and domestic investment to create a modern high-tech industries, providing the output of competitive products with high added value, as well as integrated and efficient use of production and resource potential of the individual regions of Uzbekistan, creation on this basis of new jobs and increase revenue population in the country has created three special free economic zones. The work is devoted to comparative analysis of systemic institutional framework of the innovation infrastructure in the industrial complex of the national economy of the Republic of Uzbekistan. Formulation of the problem. To consider the principles of selection, priority activities of subjects of business, and also fiscal privileges and preferences provided by the government in the free industrial economic zone "Navoiy" and the special industrial zones "Angren" and "Jizzakh". Conclusions. The work opens the factors reducing efficiency of innovative activity, the author's interpretation of innovative system is presented, offers on their overcoming are given.

Keywords: industry, innovation, infrastructure, innovation, investments, investment climate, national innovation system, the special industrial zone, free industrial economic zone, science and technology park, business incubator, a favorable business environment

The modern industrial complex of national economy of Uzbekistan by means of innovative infrastructure forms the relations between economic entities providing his competitiveness by commercialization of new knowledge at the minimum transactional expenses. According to experts, it is possible to carry to basic elements of innovative infrastructure of an industrial complex of national economy of Uzbekistan:

- the free industrial economic zone (FIEZ) – the limited territory in which favorable conditions for implementation of priority kinds of activity are created;

- the special industrial zone (SIZ) – the territory provided with communications, provided by the state to subjects of private business for placement and operation of objects of the industry;

- the technological park is the organization which main goal is increase in welfare of local community by means of advance of innovative culture, and also competitiveness of innovative business and the scientific organizations. For achievement of these purposes the science and technology park stimulates and operates streams of knowledge and technologies between universities, research institutes, the companies and the markets. He simplifies creation and growth to the innovative companies by means of incubatory processes and processes of removal of the new companies of existing (spin-off processes). The science and technology park besides the high-quality areas can provide other services;

- the business incubator is the organization which is engaged in support a startup projects of young businessmen at all stages of development: from development of idea to her commercialization.

In the Republic of Uzbekistan the institutional foundation of formation of innovative infrastructure has been laid in 1996 by the Law "About Free Economic Zones" [1]. In 2008 in Navoiy the Uzbekistan's first free industrial and economic zone has been organized. The main activity of economic entities in the territory of SIEZ "Navoiy" has determined production of production, hi-tech, competitive in the world markets, due to introduction of the modern foreign high-performance equipment and equipment [2].

According to the current legislation, the full complex of fiscal privileges and preferences is provided to the enterprise structures registered in SIEZ by the state.

According to the SIEZ "Navoiy" information center, in for January 1, 2016 21 productions work. The carried-out analysis shows that every fifth enterprise is connected with production of automobile accessories.

JV Uzegayecable has been created between JSC "Uzavtosanoat" and Erae cs Ltd (South Korea) company in 2011 for production of automobile wires. The total cost of the project exceeds \$13 million. The main consumer of production is JV "Uzkodzhi".

On the basis of JV UzEraeCable the localized production is made: accumulator plait for the Chevrolet Cobalt car and the global GSVEM model.

JV UzMinda is created by JSC Uzavtosanoat with the Indian company "Minda Capital". The enterprise with an annual production capacity of 251 thousand auto sets makes speedometers and security systems for cars.

Since 2014 the Uzbek-Italian JV LLC Avtosanoat – Landi Renzo functions. His profile – production of 25 000 units of the podkapotny equipment for the transfer to the compressed natural gas.

The Markazsanoateksport foreign trade company together with the Kefayat General Trading Co company (United Arab Emirates) has created JV AgroFres on storage and packing of fruit and vegetable products. The enterprise equipped with modern Italian refrigerating appliances with the adjustable gas environment allows to store up to 3 000 tons fruit and vegetable products.

Besides two plants on production of polyethylene and polypropylene pipes of unitary subsidiary “Shurtan gas-chemical complex” – “Kuvurlara polyethylene” 8,6 thousand tons work. polyethylene pipes with a diameter from 75 to 630 mm and “Kuvurlara polypropylene” 2 300 items of km in a year of polypropylene pipes with a diameter from 16 to 63 mm.

In 2015 three new enterprises with participation of the British investors are created. The British company “Dartlex Impex LLP”, LLC “J-United Group” and business owners have created JV “Green Line Profil” and JV “National Plast” for production of 35 tons of aluminum shapes and other products from aluminum (cost of the project of \$35,2 million) and 42 thousand tons of profiles and products from polyvinylchloride (\$20,3 million). SP LLC “Infinity Electronics” and the British company “Wynex Innovation LLP” have created JV OOO “Samrt Communications” on production of 200 thousand pieces of mobile phones. The cost of investment makes \$2 million.

For formation of favorable conditions on attraction of foreign and domestic investments for creation of the modern hi-tech productions providing release of competitive production with a high value added and also complex and effective use of production and resource capacity of the Tashkent region, creation on this basis of new workplaces and increases of the income of the population in April, 2012 SIZ “Angren” has been created [3].

Rather for short term large-scale work on the organization of all necessary legal and institutional conditions to start work of new object has been carried out. For involvement of domestic and foreign investors in the territory of a zone the particular fiscal treatment has been set.

In the territory of SIZ “Angren” for short term production of hi-tech production on 23 projects for the total amount about \$487,84 million, including \$193,5 million direct foreign investments – energy saving LED lamps, copper pipes of various diameter, briquette coal, production of an architectural facing brick, production on processing of skin, plant on production of sugar and other enterprises is already arranged [4].

For formation of favorable conditions on attraction of foreign and domestic investments for creation of the modern hi-tech industrial productions providing release of competitive production with a high value added, complex and effective use of production and resource capacity of the Jizzakh and Syr Darya regions in 2013 the special industrial zone “Jizzakh” has been organized. The main directions of its activity were [5]:

- attraction of direct investments for creation and effective activity of modern hi-tech and innovative productions on release competitive on internal and foreign markets of production with a high value added;

- ensuring complex and effective use of production and resource capacity of the regions entering a special industrial zone, creation of new productions on deeper processing of mineral raw material resources and agricultural raw materials;

- deepening of processes of localization of production of hi-tech production on the basis of local raw materials and materials on the basis of establishment of close cooperation ties and development of industrial cooperation between the organizations of a special industrial zone and in general the republics;

- ensuring the advancing development and effective use of transport, engineering communication and social infrastructure in the territory of SIZ “Jizzakh”.

Selection criteria of economic entities for providing the status of the participant of SIZ “Jizzakh” by him are:

- creation modern or carrying out deep modernization of the operating productions, with equipment by their hi-tech equipment and technologies, first of all, for deep processing of local mineral raw material resources and agricultural raw materials;

- compliance of a profile of activity to the main objectives of SIZ “Jizzakh”, without inclusion of the organizations for production and primary processing of strategic natural raw material resources;

- implementation of investments at the expense of own means of founders and the loans attracted by them without provision of a guarantee for the Republic of Uzbekistan;

- stage-by-stage formation in SIZ “Jizzakh” of technological chains on production of import-substituting and export-oriented competitive production;

- adoption by investors of obligations for reinvestment in the organization not less than 50% of income gained from application of privileges during the term of their action.

So, according to the government Program of the advancing development of transport, production and engineering and communication

infrastructure of SIZ “Jizzakh” in 2013–2018 in Jizzakh it is planned to realize 17 projects for the total amount of \$48,3 million. Including, 5 projects on construction and reconstruction of sites of highways for the sum of \$20,3 million, 3 projects on development of railway infrastructure for the sum of \$2,3 million and 5 projects on development of water supply, irrigations and sewerages for the sum of \$24,8 million. During the period till 2018, it is planned to realize 2 projects on construction and reconstruction of networks of power supply for the sum of \$406,7 thousand and 2 projects on development of gas supply for \$507,1 thousand. Projects will be financed by funds of the state budget for the sum of \$21,4 million, own funds of the enterprises for the sum of \$3 million and funds of the international financial institutions for the sum of \$4,6 million.

Now here large-scale work on development of transport, production and engineering and communication infrastructure is conducted. With attraction of direct investments the hi-tech productions which are turning out products, competitive as in the internal, and external markets are created.

Only in past, 2015 in the territory of SIZ “Jizzakh” 9 industrial enterprises have become operational, in present it is planned to continue work in this direction and to open new which will make over 10 types of demanded goods.

As show our researches, a main objective of the organization of science and technology parks is further activization of innovative activity in Uzbekistan in general and certain regions in particular, and also ensuring need of economy for innovative products. In our opinion, creation and further development of science and technology parks is urged to solve the main task in formation of the competitive overworking sector on the basis of strengthening of connection of science with production, introduction of modern technologies, increase of labor productivity in the industries and, as a result, productions of hi-tech and competitive production.

So, according to the memorandum in the territory of SIZ “Jizzakh” the Uzbek-Chinese industrial park is created. Now 54 agreements with the Chinese investors on joint implementation of projects in the sphere of the electrotechnical, mechanical, pharmaceutical, light and food industry, production of modern construction materials and products from polymers for the sum of 300 mln. dollars of the USA are signed.

In Namangan the project of the science and technology park specializing in production of silk is carried out.

In October, 2015 in Tashkent creation of educational and research textile “Science and technology park” has begun. The project is

realized by JSC Uzbekyengilsanoat together with the Ministry of Trade, the industry and power industry of the Republic of Korea. Purpose of science and Technology Park: developments and implementation of the international training and research Programs for introduction at the Tashkent institute of textile and light industry. Besides, the science and technology park will develop technological know-how and to carry out research works in the field of materials science, tinctorial and finishing productions, new designs of fabrics and clothes.

In the Tashkent region (Parkent) the science and technology park on renewable and ecology is created.

More than thirty business incubators operating now in Uzbekistan are the main objective the practical help to subjects of business at the first stage of activity – the organization of business process, rendering information and consulting services, assistance in implementation of investment and innovative projects. The important program documents causing development of this institute of infrastructure [6], A number of Resolutions of the President of Uzbekistan became the important program documents causing development of this institute of infrastructure [7]. In the republic the Association of business incubators and science and technology parks of Uzbekistan which serves further development in the country of small business and private business, to expansion of the sphere of service is created.

In addition, the main activities of business incubators are also rendering marketing and consulting services to businessmen, increase of their economic and legal culture, formation of skills of record keeping. As a result of effective measures and the created conditions practical help annually is given in financing more than hundred investment projects of subjects of business.

The phased transition of national economy of Uzbekistan on innovative rails isn’t possible without formation of competitive national innovative system which is represented to us as the difficult, open, dynamic, organized system universal founded on economic relation and a state system of the country, regulating rules of law innovative activity, internal and external institutional environment for economic subjects for the purpose of preservation and increase in national wealth of the country [8].

Any system, including national innovative system, has certain functions. The analysis of works of scientists of the former Soviet Union has allowed counting about 30 functions of national innovative system.

Foreign scientists are more unanimous in allocation of functions both innovative systems, and national innovative systems. The scientist

of technological university of Chalmers (Sweden) A. Johnson considers: "The purpose of innovative system – to develop, extend and use innovations. The main functions are two, directly connected with innovative process:

1) identification of problems, bottlenecks of innovative system;

2) creation of new knowledge.

The third function is connected with maintenance of innovative process and includes:

3.1) ensuring incentives for innovative activity;

3.2) granting necessary resources;

3.3) direction of search, i.e. definition of strategic priorities;

3.4) determination of potential for growth of innovations;

3.5) assistance to exchange of information and knowledge;

3.6) stimulation and creation of the markets of innovations;

3.7) decrease in social uncertainty of the markets, i.e. prevention or the solution of the conflicts between firms and individuals;

3.8) counteraction to resistance to changes which arise in an society at introduction of changes, i.e. introduction of the mechanism of legitimacy for innovations" [9].

M.P. Hekkert and S.O. Negro in work of 2005 allocate the following functions:

"1) business activity;

2) development of knowledge (training);

3) diffusion of knowledge through networks, i.e. an exchange of information;

4) guide to search of priority activities;

5) formation of the market;

6) mobilization of resources;

7) creation of legitimacy / counteraction to resistance to changes" [10].

In later their work of 2007 once again are evidential limited to listed seven functions [11].

Based on that:

- "function – (Latin function-execution, implementation) – 1) mission; 2) activity, duty, work";

- "functions represent the directions of activity of system which interacts with Wednesday";

- "functions are inherent in system and its components, and functions of system are the integrated result of functioning of the components forming it".

It is possible to formulate the following conclusions.

First, national innovative system equips with a number of "others" functions. So, for example, formation of national innovative policy; development and providing standard legislative base; the choice of priorities in the field of innovations, scientific researches and developments, etc. treat the state functions and

functions of authorities of the state (which have more concrete character). Further, generation of knowledge, dissemination of knowledge, storage of knowledge, etc. belong to an education system.

Secondly, any author doesn't allocate internal and external factors of national innovative system, despite active development of supra-national and global processes in world economy recently.

Thirdly, as the national innovative system on category of variety of effects possesses adaptability (property of system to keep the identity in the conditions of variability of external environment), policy and actions of the state shouldn't bring system to a crisis state. The national innovative system has to possess functions as the "properties in dynamics" leading to achievement of the purpose even in conditions of the changing state.

In the conditions of the Republic of Uzbekistan, in our opinion, it is necessary for creation of effective national innovative system:

- step by step to increase demand for innovations from subjects of branches of national economy (it is caused by the fact that today innovative activity is generally concentrated in narrow number of sectors, and technological updating of production mainly relies on import of technologies, but not on domestic developments);

- to considerably increase efficiency of sector of generation of economy of knowledge (fundamental and applied science): now in separate scientific research institutes there was a decline in quality of scientific researches, there is no orientation to requirements of economy;

- to overcome a fragmentariness of the created innovative infrastructure: many elements of innovative infrastructure are created, but they don't support innovative process throughout all chain of generation, commercialization and introduction of innovations yet.

To one of explanations of low efficiency of the operating innovative policy can serve weakness of its institutional base. In public consciousness there is no understanding of importance of science, use of scientific knowledge for technological modernization as main thing in the modern world of a factor of national competitiveness and safety today. This understanding wasn't up to the end created also at many levels of branch and territorial administration.

Low level of a demand of the knowledge-intensive production from her potential consumers is explained, on the one hand, by their low solvency, interest import of equipment and technologies from the outside, and with another incompleteness to the level of

introduction or production of developments, and also insufficiently active work on joint advance of innovative production on the markets from her producers.

Activization of innovative activity in the country, undoubtedly, will be promoted by adoption of law of the Republic of Uzbekistan "About innovations and innovative activity". It is expedient to provide development of mechanisms of legal regulation of the relations between subjects of innovative activity, attraction of investments, creation of innovative and venture funds, infrastructure innovative organizations and further improvement of system of the taxation and crediting, and also development of measures for development of interest and encouragement of the participants of innovative activity who are carrying out priority hi-tech innovative projects and introducing these developments in branches of economy in general and an industrial complex in particular in this law.

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