

FORMING OF THE SYSTEM OF NATIONAL INNOVATION

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Abstract

Innovation have been considered problems problem in the represented article. Are informed that one new demands of the development in the modern time of the national economy is the application of the innovation. Innovation has important role in the preparing in the economy of the rivaling products. In the article and is shown that structure of investment given impetus to improve (perfect) innovation development in the republic.

Keywords: Innovative development, innovative potential, innovative process, innovative resource

Today, many countries have associated their prospects for long-term sustainable increase of the transition to an innovative way of development, characterized with more extensive use in the economy as a whole and by sector of the latest achievements of science, engineering, information technology, new materials, resource-saving methods for the creation of national income. Economically, it is clear that innovative development provides high added value of products. With the emergence of innovative development of economy becomes less dependent on the impact of price of and much more resistant to crisis processes. In this regard, the establishment of which has already begun, formed an innovative way of development is very important for the republic now. Innovative development of the country indicates its ability to self-regulation, renewability, fast adaptability to changing scientific, economic and social trends. The last world economic experience has shown that sustainable, competitive, long-term development is not dependent on the resource potential, it dependent on innovative achievements. Necessity for sustainable innovative economic development determines by current situation in the world. Expansion of inland and international trade, the integration of the republic into the world market requires consistent passage of stages of reproduction using innovative principles of management. In the modern period economy of republic is at a stage of transition to innovative development, the implied distribution of the innovation process in time and space. It is known that the difference in the conditions of economic livelihoods causes different level of innovation development. These include especially natural resource potential, geopolitical situation, economic structure, and others.

The treatment of the innovation potential can be distinguished in several basic approaches , which include: 1. complex of different types of resources, necessary for the implementation of innovative activity; 2. the ability of the system to transform into a new situation to meet the needs of different levels; 3. structure uniting behold constituents of potential - resource, domestic and productive, existing in the interaction and interdependence; 4. The ability to create innovations, implementation of innovations [1, p.16-17].

On the quantitative and qualitative features of the innovation potential affect fluctuations of the economic cycle, basically, which are need for replacement of the fixed capital. The

sequence of changing economic cycle phases determined by the structure of fixed capital. Economically objective prerequisite update capital are payback resources. The capacity of the national economy is technologically and commercially use the scientific and technical knowledge appears characteristic of their innovative potential. The degree and extent of use of innovative potential assesses the situation of the country in the world economy, and also determines the direction of future development. Innovative activities traditionally associated with a high level of risk, so, according to statistics, only 10% of all development has commercial success [4, p.882]. Directly with the innovation process relates with process of modernization. First of all, every country is developing in accordance with general economic laws, for violation of their negative impact on the results of socioeconomic dynamics of a country. The specifics of economic development must consider the following factors: availability of natural resources, climatic conditions, greatness of the national wealth, the demographic structure of the country, extension of the state borders, geographic location, national mentality, political system. The most important characteristic of the national economic system is its competitiveness. The following factors are counted when selecting the orientation of economic activity: the proximity of natural resources, the cost of their output and processing, beneficial economic and geographical position, quantity of consumer demand, the cost of utility tariffs, the amount of tax payments, status and degree of transport infrastructure development. The national innovation system is a combination of economic entities - institutions, producing new knowledge, legal, financial, social institutions, social norms involved in the creation of new knowledge, storing, distributing, transforming into new technologies, products and services consumed by society [2, p. 145-146]. The transition to an innovative path of development - the key problem of the modern economy of the country. Modern national innovation system market-type are based not liberal principles of innovation, including the following: openness of the national economy, the legislative strengthening of private property rights and intellectual property, equity and economic actors, legislative support of the competitive environment. Currently, the Republic of Azerbaijan passes the first stages in the formation of the national innovation system, because restructuring is still emerging, as evidenced by the preservation of raw material trends and a high proportion of fuel and raw materials industry in the industrial sector. It should be noted that the first steps to create a modern national innovation system in the country have already been taken, means that to the investment focus in the development of non-oil sector of the economy. The complexity of the problem is that the formation of innovative market-type system should take place in the period not completed market reforms yet. It is necessary take into account that during the period of market reforms there was a reduction of scientific and technical potential: the total content of scientific and technological work, the number of scientific staff, absolutely and comparative expenditure on research and development. For generalising indicators performance of innovation is the volume of innovative products in the total volume of manufactured products. Poor effectiveness of the innovation activity determines export performance. At the same time in the structure of the national economies of developed countries dominated high-tech industry, characterized by low material and intensive labor, although very high cost of shares on research and development work, as well as the service industry. The peculiarity of the technology in these industries is that they are based on the extensive use as the results of intellectual work, in these countries, the development of innovation and quality of human capital is the main goal of the investment policy. In the long term, innovative character of development will continue. The development of global processes in the field of R & D (Research and Development) directly affect the status of the national innovation systems - National News Service (NSN) - and can result in the short

term to their significant transformation. The concept of NSN and their role in the processes of technological and economic development began to be formed by scientists from different countries since the late 80s of the last century. The focus of this concept is the national features of the organization of the innovation process in the different countries, function of public and private institutions, forms of interaction these institutions at various stages of innovations. In accordance with this concept a key role in the implementation of technological changes is played by factors having a national identity [3, p. 19]. These factors express the historical experience, culture, traditions, state size, its geopolitical position, the national interests, current education system, scale of economy, market structure, relations between economic entities and with government agencies. Innovative potential of industrial firms and their competitiveness depends primarily on their support at the national level. Accordingly, the process of rapprochement of science and industry will continue at the national and international level. Deepening cooperation will lead to the fact that more and more research work will be open. Modern society requires a focus on the modernization that combines union of universal and national principles of social and economic development. This trend follows by developed countries. The American economist, Nobel awardee R.Solou showed that technological change increases the productivity of capital and allows at the same volume of resources produce more high quality products. Calculations R.Solou, D.Hendriksa, E.Denisona, P.Samuelsona showed that in the XX century, growth of GDP in developed countries through innovation has become magnitude, relatively independent of such factors as increase number of employees, raw material costs, capital costs [4, p.20]. Currently, 90% increase of labor productivity is determined by the STP, rather than increasing capital intensity. Exactly this situation allowed small countries without abundant natural resources, to come out to the forefront in terms of economic growth and improve quality of life. In the 90s, when the old economic mechanism was destroyed, and new market relations has not been formed yet, there was a sharp decline in innovative activity in all spheres of economic livelihoods. In the post-socialist space dramatically decreased the cost of research and development work. Spending on science in Azerbaijan also fell dramatically, accounting today 0.2% of GDP, 0.6% of expenditures of the state budget, which is 2.5 times less than corresponding costs for the CIS countries. These costs in Japan and the United States constitute 3%, in the EU countries of 2.5%, in the countries of Central and Eastern Europe 2%. The main competitive advantage in the modern world is not the possession of cheap resources, it is the presence of significant scientific research, education potential. Economy of the republic is still operating at the expense of raw materials export model of economic growth, to reduce national resources and undermining the incentives for innovation development. Despite this, in the context of globalization innovative development path for the country has no alternative. Despite the availability of natural resources it is obvious that oil and gas earnings are no longer able to act as the main source of economic growth. Therefore, it is necessary restructuring of the economy, the transformation of the socio-economic relations, the development of a new type of social system. In an increasingly globalized of the world economy and the search for a new paradigm with most important condition of progressive growth is the establishment of an innovative way of development. The economic growth of the traditional resource-intensive industries taking a decreasing value with increasing role of intensive-knowledge, high-tech industries with high added value. In addition, with limited natural and financial resources, selective support for individual sectors becomes ineffective economic policies. It is necessary to mobilize the resources to achieve national goals and depending on the level of economic development, first of all, it is necessary to pay attention to innovation, innovative options, competitive industries with high added value.

Dynamics of the main indicators characterizing innovative potential of the Azerbaijan economy [5].

Indicators	2005	2010	2015	2016	2019
GDP % prev. y.	126,4	105,0	100,1	102,2	105,8
Industrial pro.	133,5	102,6	95,0	97,7	101,8
Invest. basic cap.	117,2	121,2	127,3	118,5	115,1
Obtain, industry%	67,4	78,9	80,5	78,8	77,2
Perineal treatment %	25,9	15,9	14,3	15,3	16,5
Oil production. mln. ton	22,2	50,2	45,6	43,4	43,4
Gas production mln, cub. m.	5732	16673	16361	17242	17895
Foreign invest.%	68,7	46,9	40,2	40,0	37,6
Domestic invest.%	31,3	53,1	59,8	60,0	62,4
Including oil industry %	77,7	35,8	39,3	41,6	46,8
Prod. of machin. equip.%	0,4	0,6	0,5	0,5	0,8
Comp. production.%	0,09	0,2	0,2	0,2	0,1
Medium. prod.%	42,8	31,5	30,3	30,2	33,4
Gro. Add. Statics %	57,2	68,5	69,7	67,8	66,6
Exp. Scien. GDP %	0,2	0,2	0,2	0,2	0,2
в % к ГБ	1,3	0,8	0,7	0,7	0,6
Unemployment.%	7,3	5,6	5,4	5,2	5,0
Retail price index	109,6	105,7	107,0	101,1	102,4
Export prev. y.	120,2	125,3	88,7	86,2	105,1

As the analysis of the table, dynamics of the main indicators is directly related to each other, which is determined by the changes in industrial production, extractive industries, primary resource potential, trends of investments and foreign economic activity. These indicators predetermines the potential of innovation activity. The dynamics of innovation indicators such as the share of the manufacturing industry, costs of the research and development, production of high-tech products are far behind relevant indicators of developed countries, despite taking place some improvements in the investment structure of republic recent years. According to involvement in the world economy, necessary for innovative orientation of the country's economy is growing. Innovative orientation significantly increases the ability of the economy to ensure economic security. Indicators characterizing the economic security are following: GDP growth, Investments in fixed assets, expenditures on science, the share of engineering products in the total volume of industrial production, the share of innovative products in the total industry, composition of exports with the presence or absence of innovative products in it. All these indicators for period of transformation in the country had a dramatically downward trend and currently preserved their insignificant size. The share of manufacturing has decreased to 15-16%, including the share of mechanical engineering to 0.8%, industry 0.9%, production of petrol products and 7.6%, food products 1.7%, to light industry 0.4%, but the production of computers was 0.3%. It should be noted that the industry

is comprises of the most diverse sectors, and precisely there is a transformation of various types of resources, raw materials, energy and commodity material products. Gross added value expresses the actual number of products, and the share of machinery in GVA represents the level of innovation of the national economy. At the same time, decline in the share of industries of food and light industry, the low share of services in GDP characterizes social orientation of the national economy. Modern national systems are based on the following principles of development of the country: openness of the national economy and its integration into the global economy; legally enforceable right of private property and intellectual activity; equality of economic entities; legislative provision of a competitive environment. The main competitive advantages of Azerbaijan's economy are: Traditionally growing magnitude of the labor force and relatively their high level of education; presence of academic institutions, universities and scientific organizations; large stocks of natural resources. Among the sectors, fuel- raw oil and gas extraction is competitive in the global market. It should be a continuation of a radical restructuring of production, transition from raw material orientation to industry with the dominance of fuel production (about 80% of the whole industry) to the predominance of manufacturing industries and first of all mechanical engineering with achievements modern high-tech production. At the same time restructuring closely linked to technological institutional modernization of industry. Modernization is impossible without integration with research organizations and innovative structures. In order to ensure the transition of the economy to significantly more advanced modern stage of economic development is necessary to make a transfer to an innovative path of growth, with the development of the industry of modern technology and issue of new machinery and equipment. The main condition for the creation of preconditions for sustainable, competitive and socially-oriented development of the national economy is a significant increase in research and innovation, the formation of the new economy. In modern conditions of development of global processes in the field of research and development it is inevitably affect to the status of the national innovation systems and in the future it will lead to significant transformation. The concept of national innovation systems began to take shape at the end of the XX century and in its focus are national characteristics of the organization of the innovation process in the different countries, the functions of individual public and private institutions, as well as the forms of their cooperation at various stages implementation of technological innovations. In accordance with the concept of the national innovation system, key role in the implementation of technological changes is played by factors expressing national identity.

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