

MACRO LEVEL ANALYSIS OF INNOVATIONS IN INDUSTRIAL ENTERPRISES OF AZERBAIJAN REPUBLIC

***Анотація.** Останніми роками відбулися ефективні зрушення в економіці Азербайджану і розвинулося багато галузей. Сьогодні країна намагається розвивати ненафтові галузі на підприємствах в сучасних умовах. Зміни вважаються найосновнішою характеристикою розвитку економіки Азербайджану.*

***Ключові слова:** промисловість, дорожня карта, інноваційні інвестиції, інноваційне підприємництво, рентабельність підприємництва, ефективність стимулювання, інновації у промисловій економіці.*

***Abstract.** In recent years, there have been effective shifts in the economy of Azerbaijan and many industries have developed. Today our country is trying to develop non-oil industries at enterprises in modern conditions. Change is considered the most basic characteristic in the development of our country's economy.*

***Keywords:** industry, road map, innovation investment, innovative entrepreneurship, profitability of entrepreneurship and effectiveness of stimulating innovation in industrial economy.*

The industry is developing well in Azerbaijan in recent year, so the year 2014 was declared the year of Industry. The economic development of Azerbaijan's innovative model has found its significance in the concept of «Azerbaijan 2020's perspective on the future». The main objectives of the concept were: economic and technological modernization, development of scientific and technical activities and the tasks of high efficiency of innovation activities.

In order to achieve its goals, the state should use all its capabilities as efficiently as possible. To effectively use all these opportunities, first you need to know the concept of innovation, secondly, the composition and factors that influence innovation policy.

Under the decree of the President of the Republic of Azerbaijan IlhamAliyev, the Strategic Roadmap was developed in 2016. It is based on the main direction of the national economy.

The document is intended not only for the purpose of developing the principles of global trends, but also in turn contributes to all the factors that help economic development, including, communication between representatives of the local and international private sector.

The strategic «road map» will ensure the development of the social welfare of our country and the competitiveness of the economy. Our country will enter the group of high-income countries by attracting investment, free competition, and the development of human capital.

Innovation or innovation consists of the generation of a new idea and its implementation in a new product, leading to a dynamic growth of the economy and increasing employment as well as creating a net profit for an innovative commercial enterprise.

Macro-level analysis of innovative activity in industrial enterprises of our country surrounds such stages. These include:

1. Performance of scientific and technological work of new stimulating products or technologies.
2. Testing new stimulating products or stimulating processes of technology.
3. Development and creation of infrastructure.
4. Training for the development of innovative activities.
5. Preservation of intellectual properties.
6. Creating new or stimulating products.

The products of innovative enterprises are: innovative projects; technological processes; scientific and technical achievements, principally new and improved products.

In order to develop macro level of the economy, it is necessary to determine its criteria. These criteria provide an effective solution to the development of innovative economy, environmental protection.

In scientific research of economic practice, the main criterion is the Gross Domestic Product.

Factors for the creation of GDP are as follows: qualitative and quantitative benefits of natural resources; quality of parameters and volume of fixed capital; within the framework of the factors of the national economy, an optimal division of high quality.

In addition to these criteria, there are the following criteria on the basis of which an innovative economy is chosen: direction of the environmental problem; the product level of innovation; social and economic relationship.

The economic parallel with the political reputation of Azerbaijan continues to grow. Azerbaijan, with its stable socio-economic development, has become an exporter of the model of the social state. Long-term and systematic activities are carried out in the Republic of Azerbaijan in the field of stable and competitive economic development. As a result of sustainable economic reforms and the diversity of the economy, the development of the non-oil sector has been achieved, in this area significant growth. As a result, our country, which has achieved success in such areas as science, education, infrastructure, social security and business, has become an example for the countries of the world. It is no coincidence that President IlhamAliyev stated that social problems are also solved in Azerbaijan: «Social policy has always been one of our top priorities». Over the past period, decrees and orders of the head of state, as well as approved state programs have led to the comprehensive and long-term socio-economic development of Azerbaijan. The purposefulness of the reform of the head of state allowed to succeed in such a situation, continue social and economic stability in the republic, increase non-oil industry and agriculture, while serious and serious difficulties for the world economy, oil prices fell by 3—4 times. Especially in such harsh conditions, the implementation of reliable social protection of the population is taken into account.

In modern conditions, innovation develops not only through the production of new products or the use of technology, and this gives an opportunity to swiftly flow to society, thanks to which for a short time new products are produced.

P. Drucker — an American scientist, a management theorist, noted that in the development of any organization, innovation is important.

There are provisions on innovations in a number of state programs and regulatory legal documents in Azerbaijan.

First of all, the Law of the Republic of Azerbaijan «On Science» in 2011 determines the main principles of state policy in the field of organization, management and development of scientific activities in Azerbaijan, the goals of science and scientific and innovative activity, mechanisms for financing science and stimulating scientific achievements.

According to the Law «Main Directions of the State Policy in the Field of Scientific Innovations», the family creates equal conditions for the functioning of all institutions and organizations engaged in scientific innovation activities.

A state policy in the field of scientific innovation is being created in these areas:

- definition of strategic directions of education and development of the state innovation system;
- formation of favorable conditions for financing innovative projects, attracting and encouraging investments;
- formation of an information bank of scientific innovation subjects;
- integration centers of science, education and entrepreneurship, technology parks, scientific and technological parks, technological incubator, innovation funds, innovations;
- creation of high-tech industries, markets and access to foreign markets;
- to study innovative development experience, to use it for development strategy development.

The activation of innovation activity depends on the effectiveness of the innovative activity of society. Thanks to this, the state must carry out work on effectiveness. They are as follows:

- formation of the legislative base for innovation;
- use of the information base;
- training personnel in the field of innovation.

On the part of the state, innovation is stimulated through two methods: state implementation of scientific research and verification projects;

The peculiarities of these projects are the subdivision of scientific resources in various scientific research fields, depending on the state scientific structure.

Stimulation of science by the state, features are taxation, depreciation, patents, preservation of small businesses through foreign policy.

In our republic, economic and strategic development enables the use of scientific and technical changes at enterprises within the country.

Scientists distinguish three types of effectiveness of industrial enterprises:

1. The primary economic effect is determined during the work with the plan, therefore it is considered an economic effect.
2. The expected economic effect that is determined after making decisions.
3. The actual effect is determined after work.

We can draw a conclusion that the economic effect is a general indicator of profit and loss.

For the purpose of economic efficiency, the following costs should be minimized:

$$D + K \times S_n \rightarrow \min,$$

Where D — cost price; K — capital investments; S_n — is the normative factor of the comparative evaluation.

On the topic of assessing the effectiveness of foreign scientists also said their opinion. They believe that in market relations in order to determine profitability, you need to compare profitability with sales figures. Performance indicators are calculated thus:

$$E = \frac{L}{(K_n + K_i)},$$

Where E — economic efficiency; L — economic indicator during the count-down; K_n — innovation costs; K_i — investment costs [1].

Innovative policy and innovative economy are one of the priority issues in the strategic documents of Azerbaijan. In 2016, approved by the Decree of the President of the Republic of Azerbaijan «On the Approval of the Strategic Roadmap for the National Economy and the Main Sectors of the Economy» is widely covered in innovations. The Declaration signed with the Decree, with the purpose of definition of target indicators of a steady and non-oil sector.

«The National Strategy for the Information Society Development for 2014—2020», approved by the Presidential Decree of April 2, 2014, says that it forms a competitive and high-tech sector of high technologies, the formation of an innovative system that ensures their use is the main goal of the high-tech sector. Special features were also created to promote innovative entrepreneurship, the formation of new innovative companies, science-intensive and high-tech products and their access to world markets; development of techno-parks, business incubators and innovative structures for the development and application of new knowledge and technologies [4].

Similar goals were also considered in the Development Concept «Azerbaijan 2020 vision for the future», approved by the Decree of the President of the Republic of Azerbaijan on December 29, 2012.

Let's note that in 2010, the cost of technological innovation in the country's industry amounted to 8.1 million AZN, while in 2017 this figure 1 was 16.1 million AZN. According to the figure 1, the industry development on innovations will become possible due to the formation of scientific and technical capabilities and the development of opportunities in the field of education. Adjusted for production, economic growth and

important areas with comparative achievements are necessary. The diagram is aimed at moving to the stage of overall productivity and innovation characteristics. The use of innovative technologies in industrial enterprises will be developed, specialized and general technical industrial campuses will be formed and adopted, measures will be taken to create favorable conditions for the development of investments in innovation and creativity, and sustainable development of the creative economy.

The effectiveness of innovative activity is assessed by the competitiveness of new products and its representation in the domestic and foreign markets.

In the conditions of a market economy, an increase in the importance of the effectiveness of the use of various works with the goal of creating innovations is required. The principle of effectiveness evaluation — in production is its relation and comparison of effect and costs. Three techno-parks have been formed, and various projects are expected to be implemented with the aim of implementing regional techno-parks. After the formation they must undergo an examination.

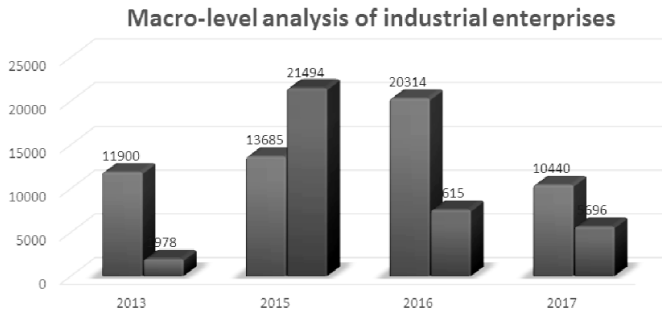


Figure 1. Dynamics of costs for technological innovation by type of innovation in industry, percentage

There were written 5 concepts of macro-level analysis of industrial enterprises:

- promotion of innovative entrepreneurship and the formation of favorable conditions for the development of new types of activities, the strengthening of advanced technologies for transfer and use;
- formation of technology parks and innovation zones for the development and use of high technology products and technologies;
- organization of the State Fund for the Development of Information Technologies for Innovative Business and the Development of the Knowledge Economy;

- promoting the development of innovative potential, in the State Program of the National Strategy for the long-term period;
- formation of a national innovation system in Azerbaijan, obtaining and expanding new knowledge and technologies in Azerbaijan.

The document considers the formation of favorable conditions for the creation of scientific research and innovation in higher educational institutions of the country.

The State Program for the Development of Industry in the Republic of Azerbaijan for 2015—2020, approved by the Decree of the President of the Republic of Azerbaijan, states that innovations play an important role in increasing the competitiveness of the industry. The document notes that industry support features include, inter alia, the creation of special economic zones, industrial parks and industrial clusters, a specific approach to specific sectors in the region, support for technology transfer and innovation.

In many countries, the policy of innovation can be divided into 4 groups depending on the level of development of countries: technology transfer; increase of internal technological potential; strengthening the innovative orientation of small and medium-sized enterprises; development of new and high-tech companies (start-ups).

We can also note about the startups of the Azerbaijan Technical University, which was carried out this year on the topic of innovation.

In the Global Competitiveness Report 2017—2018 of the World Economic Forum, Azerbaijan ranks 35th in the rating, doubling its rating. Thus, Azerbaijan still leads the CIS in the prestigious world ranking, leaving 4 out of 4 developed countries of the world. Even countries like Italy, Russia, Indonesia, India, Turkey and South Africa, which are included in the G20, also lag behind Azerbaijan due to the index of economic competitiveness [5].

There were shown two indicators in the article: the first is the macroeconomic environment, the second is technological readiness. Despite the influence of external influences, our country ranks 37th out of 140 countries in the category «macroeconomic environment». The only negative indicator of Azerbaijan in the macroeconomic environment was inflation. According to the market volume, the report does not change our position, despite the fact that there are problems in the Global Competitiveness Report 2017—2018.

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