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THE DIRECTIONS OF INFLUENCE OF INNOVATIVE ACTIVITIES ON ECONOMIC DEVELOPMENT IN THE NATIONAL ECONOMY

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ABSTRACT

An innovative economy is not just an economy that uses the achievements of science in its development. It is an economy in which intellectual capital accounts for the bulk of the value of the production system, corporations and companies, enterprises and firms. In an innovative economy, it is the sensitive attitude and concern for scientific knowledge and intellectual capital that ensure the main growth of the national GDP.

The article examines the current state of the organization of innovative activities in the national economy in a modern market economy. In recent years, rates of economic growth have been observed in the development of the national economy of Azerbaijan. According to international ratings, Azerbaijan is improving its economic situation every year. The correct economic policy pursued in all these processes, the transition to modern innovative development have a positive impact. In Azerbaijan, too, sustainable reforms based on international industrial experience are considered very cost-effective and are ongoing. The article also analyzes the position of Azerbaijan in the field of innovations in international rankings in comparison with other countries. The study shows that the volume of industrial products produced in Azerbaijan in recent years in the industrial sector, the cost of technological and product innovation is low, and the innovative capabilities of Azerbaijan in the International Competitiveness Report are low compared to other countries.

The article analyzes the existing problems in the field of application of modern innovations in the Republic of Azerbaijan, presents proposals and recommendations for their elimination.

Keywords: Innovation, Transport, Development, Industry, National Economy, Integration, Potential

INTRODUCTRION

At the beginning of the third millennium, economists recognized that the most important factors in the development of society are not the use of space, information technology, genetics, nuclear energy, but the generalization of innovative processes. Accordingly, it was considered necessary to create a national innovation system to enhance the economic power and security of each state. In recent years, the innovative development of the economy on a scientific basis is based on a broader and more effective use of new technologies, new types of services and innovations in the field of management. The economy of any country is directly related to the development of science and technology, as well as to their application. One of the key issues in the development of the economy of developed countries is the formation of an innovation policy. State regulation of the economy and

innovation processes is one of the main conditions. State support is necessary for the development of the scientific, technical and innovative potential of the country (Adebayo, 2020).

As world practice shows, countries implementing the concept of a systematic approach to innovation policy can quickly create an effective national innovation system. The transition to innovative development in developed countries became possible thanks to the creation of a national innovation system. According to research from the United States, the national innovation system is an important achievement of the twentieth century. In developed countries, which form the basis of industrial development, the national innovation system ensures the highest level of competitiveness of the system of activities of institutions, technological progress and the economy.

The experience of dynamically developing countries, characterized by the widespread application of new ideas, scientific knowledge, technologies and products in various spheres of production and management to ensure economic development and competitiveness, shows that economic progress requires the creation of an effective national innovation system on a scientific basis. Currently, economic development requires the creation of an effective national innovation system on a scientific basis. There are different approaches to the formation of this process, and there are a number of factors that complicate their implementation. In this case, it is advisable to use the experience of advanced countries. Improving efficiency in this area is possible by solving the identified problems (Abdullayev, 2020). An innovation policy pursued by the state means the creation of new or improved products in the economic cycle, as well as in the technological process using the achievements of science and technology. This policy is being implemented to increase the competitiveness of local products, ensure sustainable economic growth, the level and quality of life, defense technologies and the country's environmental safety.

The main principles of the state's innovation policy are the financing of innovative programs and projects aimed at solving the country's socio-economic problems, the formation of an innovation infrastructure and preparation for innovation. It is impossible to put the country's economy on the path of innovative development without the formation of a legal framework that creates favorable conditions for the development of innovations (Barnetti, 1953). In recent years, economic measures have been taken in the Republic of Azerbaijan in the field of applying modern innovations in the spheres of the national economy. It should be noted that all this allowed Republic of Azerbaijan to constantly expand cooperation with various international financial institutions towards integration into the world economy. It should be noted that the implementation of the national economic interests of Azerbaijan is based on the sustainable development of the national economy. During the political and financial crises that have occurred in all countries of the world in recent years, sustainable development has been observed in Azerbaijan.

The formation of the national economy and its effective integration into the world economic system determines the competitiveness of the country's economy as a whole and the industry that forms its basis. The industrial and transport policy formed in our country corresponds to the concept of ensuring the competitiveness of the national economy. The Republic of Azerbaijan is rapidly developing, modernizing and occupying a worthy place in the world in the direction of building a democratic society, economic and political reforms and the development of a market economy. As a result of the successful implementation of the economic programs adopted in Azerbaijan in recent years, our country has made great success in the development of all sectors of the economy, integration into the world economy, implementation of the oil strategy, reduction of unemployment, poverty and poverty. improving the standard of living (Carta, 2020).

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In recent years, economic measures have been taken in the Republic of Azerbaijan in the field of applying modern innovations in the spheres of the national economy. It should be noted that all this allowed Azerbaijan to constantly expand cooperation with various international financial institutions towards integration into the world economy. It should be noted that the implementation of the national economic interests of Azerbaijan is based on the sustainable development of the national economy. During the political and financial crises that have occurred in all countries of the world in recent years, sustainable development has been observed in Azerbaijan.

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In the context of the integration of the Republic of Azerbaijan into the world economy, the problem of innovation and competitiveness of the country's economy requires adaptation to the world market and globalization processes. Thus, the modern world is characterized by the formation of international innovation networks, joint scientific and technical research and development of different countries and corporations.

Republic of Azerbaijan has the potential to produce competitive products in many areas. However, some technological advances do not replace the main one: a new economy is emerging in Azerbaijan based on a highly competitive economy, an innovative development model based on innovation. Of course, in the model of innovation-oriented economic development, the development of industries and the formation of inter-industry relations are of great importance. From this point of view, the creation of technology centers in Azerbaijan can give a positive result. The creation of such types of scientific and educational structures and the development of scientific and technical activities ensure the development of small innovative enterprises, the commercialization of research and development and their application in industry. The national interests of Azerbaijan as a whole require the formation and implementation of an innovation policy, which is an important part of the scientific and technical strategy, meets the new economic and socio-economic realities and provides a large-scale inflow of capital for the modernization of production. Undoubtedly, in order to reach the desired point of development, it is necessary to improve the vector of development, free the economy from dependence on oil exports and move on to creating a knowledge economy, science-intensive industries, high technologies and innovations. The only way to achieve these goals is to learn how to use innovative mechanisms, to master completely new directions based on knowledge in the field of energy, biotechnology, nanotechnology and other sectors of production operating on a scientific basis. Innovative technologies are the

most important source of labor productivity and development of various sectors of the economy. The entry of the Republic of Azerbaijan into the global innovation environment as a developed country depends on the rapid formation of a national innovation system. In this regard, the development of an appropriate development program emphasizes the importance of constructive solutions to many problems, the development of an effective, efficient theory of the innovation system necessary for making management decisions. In recent years, radical economic and industrial reforms, targeted government programs, accumulated financial opportunities and extensive foreign economic relations have ensured the economic development of Azerbaijan. However, the key elements of this future success depend on the ability to create new ideas and implement them in the form of innovative and successful products, services and new types of companies in the country (Hofstede, 1984).

The formation of the national innovation system includes various areas - the creation of the necessary legislative framework, the determination of scientific and technical priorities, the management of the research sector, the renewal of the material and technical base of the research sector and etc (Hofstede, 1980).

LITERATURE REVIEW

The American economist R. Solow in his study proved that at least 50% of economic growth in the United States was caused not by the growth of traditional factors such as labor and capital, but by the achievements of scientific and technological progress. Today, no one doubts that the development of all spheres of society's life directly depends on the development of innovative technologies, and this connection is constantly growing. The innovative development of the advanced countries continues. A fundamental discovery is the initial stage of innovative development. Given the high risk of fundamental research and design work, it is obvious that the state should support this direction. It is also known that the government gets a fairly high return on investment (Jaskyte, 2004).

In leading countries, the state is almost entirely responsible for financing the "science parks" that form the basis of the modern progressive economy and operate mainly at universities. As a result, science, and innovative production, and the state itself receive huge dividends. It is no coincidence that science parks and technopolises are the basis of the "economic miracle" of modern Japan. In developed countries, as a rule, state-owned banks, foundations and companies provide long-term loans at preferential interest rates to companies producing high-tech products, creating preferential regimes for the use of land and property, buildings and structures (Kafka, 2020).

The term "innovation" comes from the Latin word "innovatio", which means renewal and improvement. This term appeared in scientific research in the 19-20th centuries. The term "innovation" as an economic category was first introduced into science by the Austrian scientist Joseph Schumpeter. For the first time in his "The theory of economic development", published in 1911, he approached the problem of "new combinations in economic development" from a scientific and theoretical point of view. It should be noted that Schumpeter J. explained in detail the process of innovation in economic development, and when we talk about new combinations, we mean the process of innovation. The scientist identified the following 5 changes in economic development (Kostis, 2018):

- The use of new equipment, technological processes or markets in production;
- Introduction of a new functional product;
- Use of new raw materials;
- Organization of the production process and changes in its logistics;
- The emergence of a new form of market offer.

Schumpeter J. Proved that the central figure of the economy, its driving force is innovation. That is why the innovation process should be understood as a change or replacement of consumer goods, means of production and transport, markets and forms of production for the purpose of their application. The result of innovation is a new or improved type of product (work, service), technological process, as well as numerous organizational, technical, financial, economic and other links in various spheres of public relations. Thus, the achievements of scientific and technological progress in the production process are disseminated in the form of innovations.

İn other hand the basic way through which culture leads towards innovation outcomes is the fact that culture is responsible for creating an environment that may hinder or promote innovation through the effects it has on the existence of free exchange of ideas between individuals in a society. According to Jaskyte & Dressler (2004), culture should be considered as integral to the innovation outcomes since the innovation procedures in- volve learning and developing new ideas.

Moreover innovation is boosted in cultures that motivate social progress and reward productivity, is long-term oriented, and accept changes (Rothwell & Wissema, 1986) while it is hindered in risk averse cultures that which are not willing to invest in new technologies and thus innovate less (Hofstede, 1980; Shane, 1993; Shane, 1995).

An analysis of the scientific and technical policy of the most economically developed countries shows that the strengthening of the interaction between science, production and public life is the essence of a new type of economy. This is an innovative economy that has been created and has been functioning in these countries for the last 25-30 years. An innovative economy should not be considered only in economic processes that regularly use the achievements and results of constantly developing science. In fact, this is a system of economic relations, in which scientific and intellectual capital consists of a large and significant part of the free funds of the economic system, legal entities and economic entities. Of course, the main burden in this type of economy falls on scientific knowledge, intellectual capital, engineering processes, and innovation infrastructure. Ultimately, these are the key components of economic growth (Leal-Rodriguez, 2014).

One of the important issues that should be considered here is the assessment of the effectiveness of innovation. Although the concept of efficiency is essentially formed in the process of material production (economic activity), the efficiency indicator is more similar to its final result, a logical conclusion. Abdullaev (2020) in their study noted the need to increase the role of the state and private entrepreneurs in expanding innovative activities in the country. In other words, the size of the effect from the introduction of innovations is directly determined by their expected effectiveness.

As you can see, the effectiveness of innovations is determined by the ability of directly created products to save the necessary and planned amount of labor, time, resources and money per structural unit of various technical systems.

Recently, especially since the 21st century, there has been a rapid development of human society, the expansion of scientific and technical innovations and information base, a very rapid development of innovations.

It should be noted that today in our country there is still a national innovation system that does not have the required level of efficiency, and at the same time does not meet the required world standards. According to foreign researchers, the innovative activity of foreign experience, especially in highly developed countries, can be used in this direction. In this case, the formation and development of innovation systems in economically developed countries, especially in the United States, is of particular importance. interest. Because we are

talking about the largest country of our time with the largest economy and, of course, technological processes (Abdullaev, 2020).

As you know, the entry of today's globalized economy into a new, modern period of development, system - is often characterized as the establishment of the era of the knowledge economy. Of course, in this process, new opportunities and conditions are created, including new economic categories, and those that already exist are subject to certain adjustments and adjustments.

From the above point of view, innovation is the creation of new and more technologically new products and services in accordance with the growing needs of the existing market system. It is the result of research and development. Innovative activity is provided as a result of the implementation of complex scientific, technological, organizational, financial and commercial activities.

Innovative growth implies deepening diversification based on the provision of an increasing number of sectors of the economy with advanced scientific and technological achievements, technological research, as well as organizational and managerial innovations. At the same time, when the global economic crisis has objectively narrowed the markets of many countries, and competition between manufacturers has intensified and intensified, the chances of domestic entrepreneurs for successful export activities are increasing. In this case, we are talking about the markets of both developed and developing countries.

Ability to innovate - the quality and quantity of research and development, the ability to turn different ideas and ideas into new products, and the level of cooperation, creativity, diversity and attitudes in a country. Countries that learn more and offer business models with innovative ideas have a higher potential for improved collaboration and interdisciplinary integration (Majidi, 2020).

METHODOLOGY

The linear regression model is used more in the field of modern innovation. Through this model, it is possible to further analyze the current situation in transport. Prediction of a single variable Y based on values of 2-x or more variable X is called multiple regression. Multiple Linear Regression Model has type

$$Y=\beta\ 0+\beta 1\ *X\ 1+\beta 2\ *X2+\ldots+\beta\ k\ *X\ k+\varepsilon \qquad (1)$$

Here, the variable Y depends on the number of variables X, ie. regressors. ε is a random error (1). The model is linear with relatively unknown parameters β. We first introduced the meanings and concepts of multiple regression. The description of the dependence Y from the 2-x variable linear model has the following types:

$$Y=\beta_0+\beta_1\ *\ X_1+\beta_2\ *\ X_2+\varepsilon \qquad (2)$$

The parameters of this model β_l are unknown to us, but they can be evaluated using a random sample (measured values of variable Y from set X) (2). Therefore, evaluation of the parameters of the model (β_0, β_1, β_2) is usually calculated by the method of the Least-Squares (LS), which minimises the sum of the squares of the forecasting error (criterion of minimisation in the English literature SSE - Sum of Squared Errors). We will denote the corresponding estimates of parameters as *b0*, *b1* and *b2*.

Error ε has a random nature and has its distribution function with average value 0 and variance $\sigma\ 2$. Ratings *b1* and *b2* are called regression coefficients. They determine the effect

of the corresponding variable X, when all other independent variables remain invariant (Mohammad, 2020).

Move (intercept) or constant member *b0*, determines the predictive value of Y, when all the explained variable X equations 0 (often the shift does not have a physical meaning in the model's framework and is conditioned only by mathematical). By calculating the grades obtained by the LS method, allow to predict the value of the variable Y (3):

$$Y= b0+b1 *X1+b2 *X 2 \quad (3)$$

RESULT AND ANALYSIS

Analysis of statistical indicators in recent years shows that the share of science-intensive products in the structure of Republic of Azerbaijan's GDP is 0.2%, the share of oil and gas, refined products in exports is on average about 95%. This indicates that the organizational and economic environment, the system of incentives and rules that are important for innovation today, have not yet been fully formed. Due to the low level of many scientific developments in the field of industry, it is impossible to sell them as a market product and apply them in production. The growing rates of imports in the domestic market of the Republic of Azerbaijan also emphasize the importance of the comprehensive application of innovations in industry.

To prevent these negative trends and increase innovation activity in the country, it is necessary to form a national innovation strategy and consider it as one of the important global directions of an important scientific, technical and socio-economic policy of the state. The economic policy in Republic of Azerbaijan, based on international experience, should be based on long-term forecasts based on a comprehensive assessment of the country's intellectual and production potential, taking into account the prospects for the development of the market for intellectual products.

The experience of developed countries shows that the development of a national innovation system is primarily associated with its integration into regional and global systems. Currently, developed countries are pursuing sustainable policies in relation to the overall strategy of innovative development and mechanisms for the implementation of these processes in areas such as innovation systems, human resource development, information and communication technologies and the business environment.

Table 1
VOLUME OF INDUSTRIAL PRODUCTS (WORKS, SERVICES) OF REPUBLIC OF AZERBAIJAN, AT FACTUAL PRICE (MILLION MANATS (AZN)) AND INVESTMENT DIRECTED TO MAIN CAPITAL OF INDUSTRY (IN ACTING FACTUAL PRICES), MLN. MANATS (1$=1.70 AZN)

Years	Volume of industrial products, mln. manats (AZN) (X)	Investments directed to main capital of industry, mln.manats (AZN) (Y)
2015	8499.9	26369.4
2016	9949.8	32300.2
2017	10610.1	39892.5
2018	8497.2	47677.0
2019	9258.0	46999.2

Source: Compiled by the author based on State Statistical Committee of the Republic of Azerbaijan (2020) data (1$=1.70AZN).

In recent years, a significant decrease in the cost of products manufactured in the industrial sector has been observed in the Republic of Azerbaijan (Table 1). For example, if in 2015 produced 8499.9 million manats (AZN) of industrial products, in 2017 this figure increased to 10610.1 million manats. manat (AZN). In 2019, the volume of industrial production in the Republic of Azerbaijan decreased to 9258 million. manats (AZN).

The volume of investments in the industrial sector in 2015 amounted to 26369.4 million manats (AZN), in 2019 this figure will almost double to 46999.2 million manats (AZN). However, despite the increase in annual investment in industry, the volume of annual industrial output has declined.

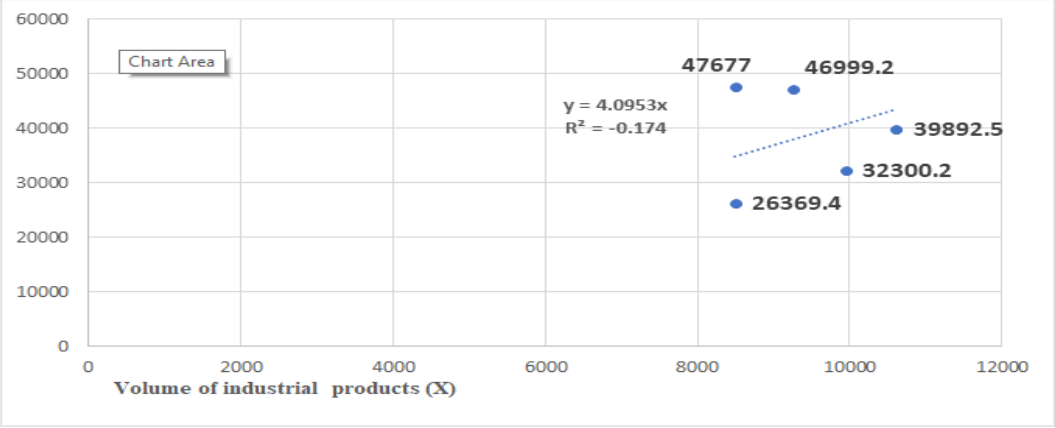

FIGURE 1
CORRELATION BETWEEN VOLUME OF INDUSTRIAL PRODUCTS AND INVESTMENTS DIRECTED TO MAIN CAPITAL OF INDUSTRY IN THE REPUBLIC OF AZERBAIJAN IN RECENT YEARS

Source: Compiled by the author based on State Statistical Committee of the Republic of Azerbaijan (2020) data.

In recent years, we can determine the trend line, determination and correlation between volume of industrial products and investments directed to main capital of industry in the Republic of Azerbaijan in recent years (Figure 1). If we look at the graph, we can see that this relationship comprises a regression model expressed by the equation y=4.0953x. That the coefficient of determination $R^2 = -0.174$ shows that the link between the two indicators is at a noticeable level.

Table 2
EXPENDITURES TO TECHNOLOGICAL INNOVATIONS IN INDUSTRY BY TYPES OF INNOVATIONS (THOUSAND AZN MANATS) (1AZN= $1 USD)

Years	Product innovations (x_1)	Process innovation (x_2)	Mining industry (x_3)	Manufacturing (x_4)	All industry Y
2015	13685	21493	2671	32492	35179

2016	20313	7615	179	27744	27929
2017	10439	5696	31	16104	16135
2018	23298	11054	1386	32967	34353
2019	38343	9693	378	47658	48037

$$Y=1.160452\ x_1 ++1.159985\ x_2 -0.15863\ x_3 -0.16038 x_4 +1.462929 \qquad (4)$$

If we analysis expenditures to technological innovations in industry by types of innovations (Table 2) compiled in MS Excel 2019 software package we achive economic equation (Table 3). From the obtained contact equation, we can conclude that an increase in the cost of innovative products by 1 unit increases the cost of innovation in the all industry by 1.160452 units (4). An increase of the cost of technological innovation by 1 unit increases the cost of innovation by 1.159985 units in the all industry. An increase in the cost of innovation in the mining industry and manufacturing by 1 unit reduces the cost of innovation in the all industry by 0.15863 and 0.16038 units.

Table 3
THE REGRESSION RELATIONSHIP BETWEEN INCOMES ON RAILWAY TRANSPORT AND THEFACTORS AFFECTING IT

SUMMARY OUTPUT						
Regression Statistics						
Multiple R	1					
R-Square	1					
Adjusted R	65535					
Standard Error	0					
Observations	5					
ANOVA						
	df	*SS*	*MS*	*F*	*Significance F*	
Regression	4	540565947,2	1,35E+08	29.17106	0.002907	
Residual	0	0	65535			
Total	4	540565947,2				
	Coefficient	*Standard Error*	*t-Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	1.462929	0	65535	0.113426	14,62,929	14,62,929
X1	1.160452	0	65535	0.069662	11,60,452	11,60,452
X2	1.159985	0	65535	0.0135	-4,539215396	-4,53,922
X3	-0.15863	0	65535	0.007518	-16,15061218	-1,61,506
X4	-0.16038	0	65535	0.237664	10,60781394	10,60,781

Source: Based on the data analysis of table 2 conducted by the author, compiled in MS Excel 2019 software package

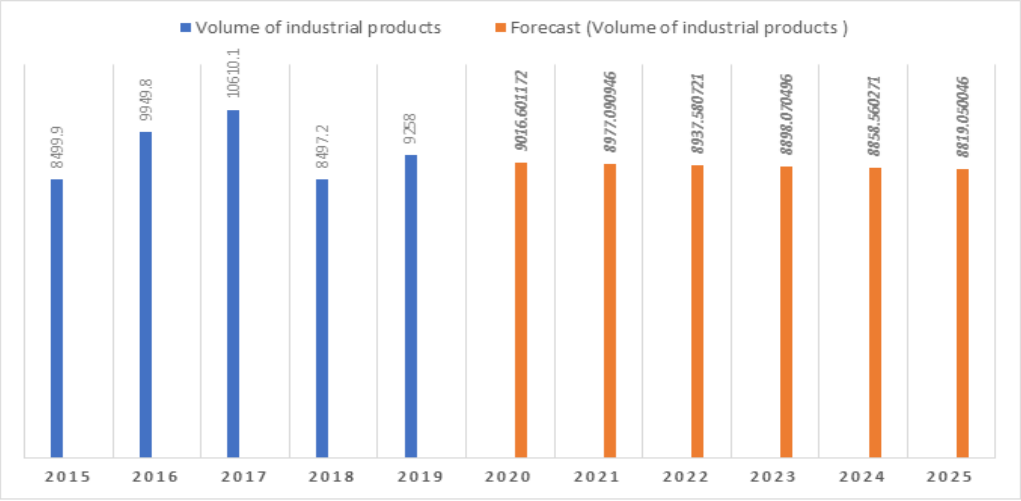

FIGURE 2
FORECAST OF VOLUME OF INDUSTRIAL PRODUCTS IN THE REPUBLIC OF AZERBAIJAN FOR 2020-2025

Source: Based on the report conducted by the author, compiled in MS Excel 2019 software package.

Considering the above, according to the trend model for the period covering 2015-2019, the forecast indicators for 2025 based on the economic conditions according to the MS Excel 2019 software package will be as in the graph above (Figure 2). The forecast analysis shows that the annual production and the cost of industrial products in the Republic of Azerbaijan are projected to decline in 2020-2025. For example, in 2023, the volume of industrial production in the Republic of Azerbaijan will amount to 8898 million cubic meters. manat, in 2024 8858.5 million manat, in 2025 it will be 8819 million manat. This is a very low figures compared to 2015-2019. Therefore, for the economic development of industry, it is necessary to apply modern innovative technologies.

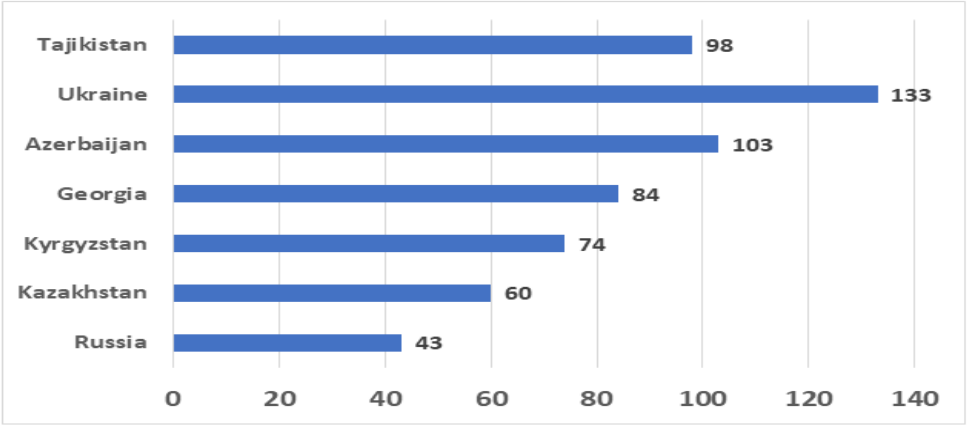

FIGURE 3
POSITION OF SOME POST-SOVIET COUNTRIES IN TERMS OF MACROECONOMIC STABILITY INDICATORS IN THE GLOBAL COMPETITIVENESS REPORT (AMONG 141 COUNTRIES) (2019)

According to the macroeconomic stability indicators in the Global Competitiveness Report 2019, if we look at the situation of some post-Soviet countries (among 141 countries), we see that Tajikistan (98), Georgia (84), Kyrgyzstan (74), Kazakhstan (60), Russia (43) were ahead of Azerbaijan (103) (GCR,2020). Among the post-Soviet countries, Azerbaijan is ahead only of Ukraine (133) (Figure 1). The analysis shows that the indicators of macroeconomic stability should also be improved in Azerbaijan. Despite the implementation in recent years of appropriate measures to achieve macroeconomic stability in Azerbaijan, the position of our country in this area in the latest international ratings has decreased. In the Global Competitiveness Report in recent years, we see some progress in the position of some post-Soviet countries in terms of macroeconomic stability (Fig. 3). Therefore, in Republic of Azerbaijan it is necessary to apply more modern economic measures in the macroeconomic sphere, taking into account international experience.

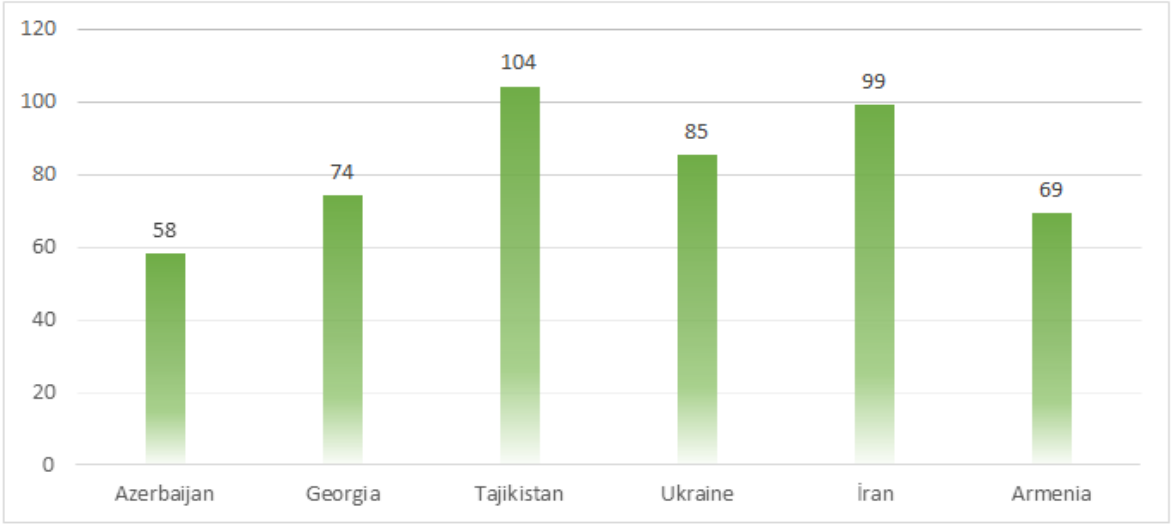

FIGURE 4
POSITIONS OF SOME POST-SOVIET COUNTRIES ON THE GLOBAL COMPETITIVENESS INDEX (2019) (AMONG 141 COUNTRIES)

For example, according to the Global Competitiveness Index 2019 of the World Economic Forum, which characterizes the level of competitiveness of the countries of the world, the Republic of Azerbaijan economy ranks was 58th in 141 countries (Figure 4). Thus, Azerbaijan has significantly improved its position in the world ranking according to the Global Competitiveness Index compared to the previous year, and among the countries of the post-Soviet space, as in previous years, it is in first place (GCR, 2020). For example, according to this indicator, Republic of Azerbaijan is ahead of such countries as Georgia, Armenia, Tajikistan, Ukraine, Iran and Armenia. It should be noted that this international economic organization uses a number of important indicators to objectively determine this level - macroeconomic balance, infrastructure development, an element of quality and the possibility of its improvement, competitiveness, fiscal and monetary policy, education indicators, size and growth of employment. These indicators in Republic of Azerbaijan are improving every year.

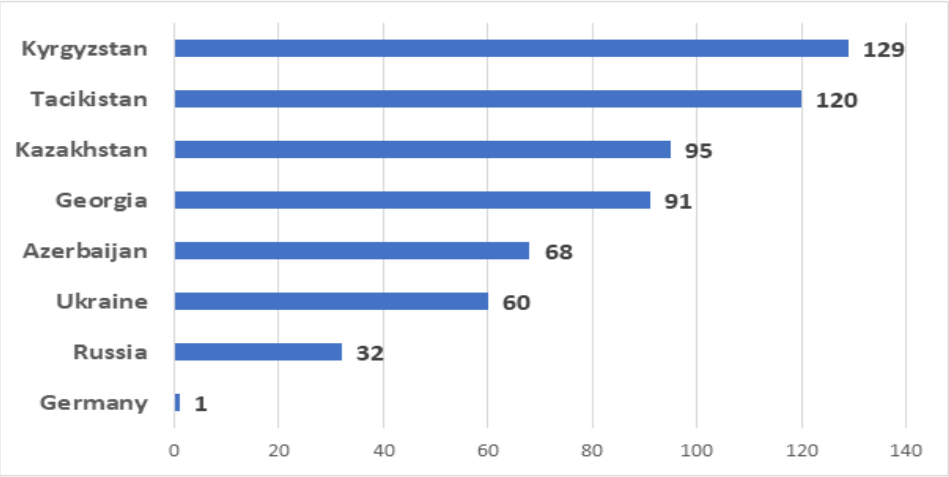

FIGURE 5
SELECTED COUNTRIES' POSITIONS IN INNOVATION OPPORTUNITY AMONG 141 COUNTRIES IN THE INTERNATIONAL COMPETITIVENESS REPORT (2019)

In recent years, all countries have taken serious measures to apply modern innovations in the national economy. Thus, while some post-soviet countries have different positions regarding innovation opportunities among the 141 countries in the 2019 International Competitiveness Report (CGR, 2020). These countries are constantly taking economic measures to move in this direction (Figure 5). Thus, despite the fact that Germany ranks first among all countries in the world in terms of innovative opportunities, Russia took 32nd place in the best position among the countries of the post-Soviet space, and Ukraine - 60th. Azerbaijan's position was 68th. In this list, Azerbaijan is ahead of such countries as Georgia (91st place), Kazakhstan (95th place), Tajikistan (120th place), Kyrgyzstan (129th place) (Figure 1). The use of modern innovative technologies in production processes in the industrial sectors of Azerbaijan, an increase in the production of export-oriented products have played an important role in enhancing the country's reputation as an innovative country.

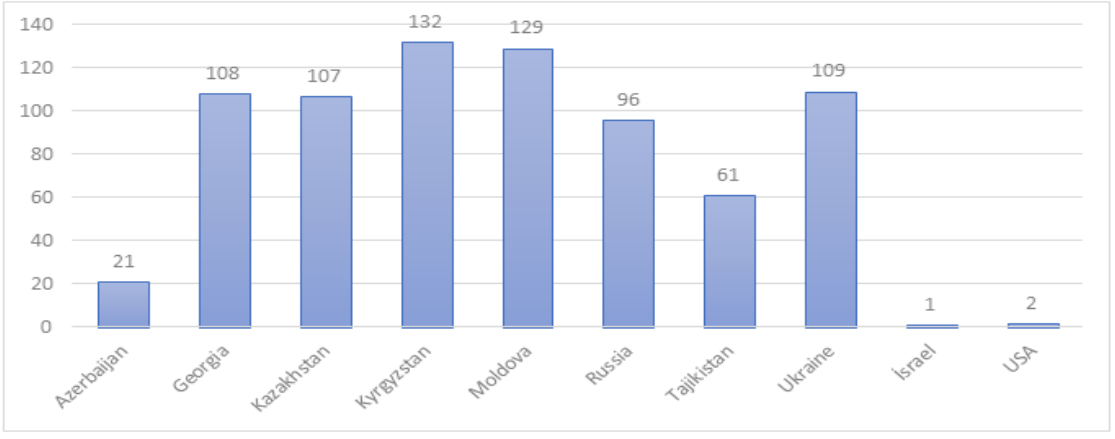

FIGURE 6
POSITIONS OF SOME POST-SOVIET COUNTRIES IN TERMS OF GROWTH RATES OF INNOVATIVE COMPANIES IN THE GLOBAL COMPETITIVENESS REPORT (AMONG 141 COUNTRIES) (2019)

If we analyze the position of some post-Soviet countries on the growth rates of innovative companies in the Global Competitiveness Report for 2019, we can see that the Republic of Azerbaijan ranks 21st among the post-Soviet countries (GCR, 2020). According to this list, Azerbaijan is ahead of Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan and Ukraine (Figure 6). It should be noted that countries such as Israel and the United States rank first in the world for the growth of innovative companies. The economic reforms carried out in the Republic of Azerbaijan in recent years in the direction of innovative development are more effective and stimulate innovative entrepreneurship, as well as increase investments in the development of this sector, etc. The processes have led to an increase in the international rating of our country. As a result, there is a tendency towards an increase in the number of innovative companies in the sectors of the national economy.

One of the important directions of the policy of diversification of the national economy in the Republic of Azerbaijan in recent years is the development of the non-oil industry.

DISSCUSSIONS AND IMPLICATIONS

In recent years, the focus has been on the principles of supporting the competitiveness, innovation and economic development of industry in Republic of Azerbaijan. It should be noted that the creation of an industrial park with a modern production infrastructure plays an important role in ensuring the development of industry in the country, as well as the country's economy. The creation of industrial parks in Azerbaijan is also aimed at implementing state policy aimed at developing the production sector and its innovative direction.

The main priorities in Republic of Azerbaijan are the creation of industrial parks, including in the regions, as well as the sustainable development of the country's non-oil sector, increasing the export potential of the country's economy, as well as competitive, import-substituting products, and employment in the adjacent territories.

The most commonly used classification of subjects of innovative activity in industry includes: - individuals or legal entities who are participants in innovative products or services; specialized entities created to carry out innovative activities (Nordh, 1990). These entities ensure the implementation of product and technological innovations.

The subjects of innovation activity in the Republic of Azerbaijan are research institutes, universities, innovation centers, innovation enterprises and partially independent components of the innovation infrastructure. It should be borne in mind that the innovation process encompasses scientific and technological development and entrepreneurial activity (Ober, 2020). Thus, innovators are the authors of innovative ideas and those who carry out the relevant work, including research institutes and centers, innovative enterprises, engineering companies, research and development structures at large enterprises and organizations, inventors (OECD, 2021).

The analysis shows that the above-mentioned subjects of innovative activity occupy a special position and role in the institutional support of industries in the Republic of Azerbaijan. Thus, those who introduce innovations (innovators) are subjects of commercialization and marketing of innovations. According to them, the application of profile risk firms, financial and industrial groups, concerns, etc. belongs to. In addition, innovative entities (investors) financing the development and implementation of innovations - banks, investment companies, pension funds, specialized companies (Park, 2021). The experience of individuals investing in innovative projects is not as common in Republic of Azerbaijan as in other countries of the region. Large companies investing in modern

innovations protect their activities from possible risks by entrusting the initial stage of commercialization of scientific ideas to small innovative enterprises.

Technoparks play an important role in the modern world as specialized subjects of innovation. These entities are usually formed in technology zones. Technology zones in each country are considered to be an area of concentration of the country's resources focused on innovation, including information and communication potential (Petrokis, 2014). Technoparks that provide institutional support for the commercialization of important scientific results create favorable conditions for joint and competitive work of scientific laboratories, innovation-oriented enterprises and industrial enterprises with a wide range of activities (Rottwell, 1986). The activity of these bodies in isolation from each other in different areas is considered ineffective (Schwartz, 1992). As can be seen from the analysis, as a subject of specialized innovation, support for the creation of industrial parks in various territories in the regions should be the main goal of the state innovation policy (Molına-Ramirez, 2014).

The nature of the intermediary mission can be important in the relationship between the innovation subjects of technoparks operating in Republic of Azerbaijan, with banks and donor organizations. As for innovation-oriented small and medium-sized enterprises operating in the country, technology parks can provide significant support in financing them from specialized funds, donor organizations or large industrial enterprises (Schwartz, 2004). The efficiency of using the institutional potential of industrial parks in the industrial sector should always be in the spotlight when implementing the correct innovation policy of the state (Shane, 1993).

Industrial technoparks do not have the ability to use administrative resources to influence the activities of any innovative enterprise (Shopero, 1982). In doing so, it is necessary to take into account the very sensitive attitude of these enterprises to intellectual property rights (Smith, 1997). As the level of protection of intellectual property rights increases, the financial results of innovation activities increase (Triandis, 2009). We continue to see serious problems in protecting modern intellectual property and copyrights. It is important that state scientific support for core innovation activities, including technology parks, be an effective and proven tool for solving various problems in this area (Uljin, 2021).

According to the International Science Parks Association, in recent years, the vast majority of technology parks operating in the world have been created with the support of the central or local government. In fact, this process is carried out by creating, in one form or another, favorable conditions for participants in innovative activities and providing them with favorable benefits. For example, the active use of ICTs and financial subsidies for staff training is more common in industrial technology parks and various innovation actors around the world. It is considered advisable to apply the relevant experience in our country (Westwood, 2003).

The activities of industrial technoparks, technology incubators, innovation centers, agricultural parks in the Republic of Azerbaijan should be based on the formation of a national innovation system and directions for its development. In this case, the state's innovative activity may increase even more.

Business incubators can play an important role in the development of technology parks as commercial structures that play an important role in the formation of innovation-oriented small and medium-sized enterprises in the country. In general, the attitude to the components of the innovation infrastructure is an important factor that determines the effectiveness of innovative entities, depending on the level of specialization (Yun, 2020). It should be borne in mind that the institutions that provide services to the subjects of innovation in accordance with their main functions, form an innovation infrastructure (Zhen, 2021).

It should be noted that the production and technological component of the innovation infrastructure includes associated parks and centers in a given territory, production complexes, and areas of risk of use. In addition, the service component integrates the consulting and technology transfer subcomponents. The consulting services subcomponent is a collaborative effort of economic, financial, technological, innovation and management consulting agencies. It should be noted that the financial sources of innovation activity (budgetary funds, extra-budgetary funds, venture funds, guarantee funds) are covered by the financial component of the innovation infrastructure. The personnel component, conventionally represented in the subcomponents of advanced training and education, serves the training of specialists in the field of technology, management and a number of other innovative areas of activity.

In general, the information component of the innovation infrastructure has a wide range of content, covering public and private subsystems and resources of the global information network. The sales component plays an important role in the commercialization of scientific ideas, including e-commerce, e-advertising, email marketing, and a number of other elements.

CONCLUSION

Industrial innovation policies pursued by developed countries are of great importance. These are countries that are constantly striving for scientific success in the field of innovation. Subjects carrying out modern innovative activity or involved in it can be considered as subjects of innovative activity. There are different approaches to their characterization. It should be noted that attempts to exclude enterprises and organizations from the list of innovative entities that do not have an acceptable level of innovativeness, as practice shows, are often accompanied by unproductive theoretical research. In other words, it is possible to correctly assess the effectiveness of an enterprise, taking into account the degree of participation in innovative activities. In general, the order of assignment to the subjects of innovative activity can be based on the nature of the activity, and not on the degree of participation in it. In recent years, this process has become more important.

In general, to ensure economic development in the country, it is necessary to implement the following measures to apply modern innovations:

- The effectiveness of innovation depends on individual measures of innovation orientation and innovation policy developed at the macro and micro levels, various programs of innovative development, including the whole country, region, industry, etc., requires program coherence and complementarity. Ensuring such coordinated activities is possible within the framework of the formation of a comprehensive state innovation policy;
- State innovation policy is not limited to studying the economic role of scientific and technological progress and preparing measures on this basis. New vectors of innovative development should be formed in accordance with specific socio-economic conditions;
- The main direction of the state innovation policy should be to ensure the development of the country's research sector at every historical stage.
- Taking into account the strategic and long-term prospects of innovative development, the state's innovation policy should be focused on the process of financing and commercializing scientific and technological achievements in our country using scientific and technological potential. In this sense, taxes, depreciation charges, customs, etc. in the Republic of Azerbaijan. Stimulation of innovative activity should be provided through discounts in their systems;

- In the formation of state innovation policy, an important aspect of the experience of developed countries should be taken into account - ensuring the dynamism of innovative development of the country's economy through the creation of national technology parks, industrial parks, regional innovation centers
- An increase in the amount of funds allocated from the state budget for science and research and development to ensure the development of the research sector in the country's economy could expand the development of new ideas, products, technologies and their application in the real sector;
- Using the experience of developed countries, cooperation with them in the scientific and technical sphere, the exchange of new knowledge and technologies, the purchase and sale of licenses, the organization of training in foreign countries should be one of the main directions of the state innovation policy. role;
- Development of science-intensive areas, nanotechnology, biotechnology, microelectronics, information and communication technologies, genetic engineering, etc. study and application of international experience in technological development in areas, training in these areas will allow developing these areas in our country in the future;
- State innovation policy should be aimed at creating large corporations, research centers, venture funds and special funds to stimulate innovation, special laboratories for the development of new products;
- The dynamism of innovation processes requires the application of high-quality standards of corporate governance, and the state innovation policy should positively influence the application of such a management system.

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