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THE IMPACT OF GOVERNMENT POLICY ON THE FORMATION OF INNOVATIVE INFRASTRUCTURE OF ENTERPRISES IN THE REPUBLIC OF UZBEKISTAN

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Annotation: This article examines the impact of government policy on the formation of innovative infrastructure of enterprises, analyzes the concept and structure of innovation infrastructure, highlighting key components such as scientific institutions, venture capital and incubators. The interaction between these components and their importance for increasing competitiveness and reducing the risks of innovation are also discussed. The main directions are considered, including legislative initiatives and financial support (grants, subsidies), as well as strategies and programs being developed. Attention is paid to the impact of government policy on innovation processes, examples of successful programs are given, as well as shortcomings and problems in their implementation are discussed.

Keywords: public policy, innovation infrastructure, enterprises, scientific institutions, competitiveness, risks of innovation, legislative initiatives, financial support, grants, subsidies, strategies and programs, innovation processes, empirical research, recommendations, education, cooperation.

Introduction: In modern conditions of globalization and accelerated technological progress, the creation and development of innovative infrastructure is becoming important for the successful operation of enterprises. Innovation is the main engine of competitiveness, allowing companies not only to adapt to changing market conditions, but also to actively form new niches and segments. At the same time, the role of public policy in the process of forming an innovation infrastructure is becoming increasingly important, since it determines the conditions for the functioning of scientific institutions, venture capital and other key elements of the innovation support system. Taking into account the growing challenges faced by enterprises, such as changes in consumer preferences, the need to introduce advanced technologies, as well as high competition in both the domestic and foreign markets, the need for effective government support becomes obvious. Effective government policy not only contributes to the formation of a stable and dynamic innovation infrastructure, but also increases the level of investment in research and development, thereby creating a base for business growth and development. [1]

An innovation infrastructure is a collection of organizations and institutions that support the development and implementation of new technologies and ideas. It includes scientific institutions, research centers, technology parks, incubators, and venture capital funds. For enterprises, the availability of such infrastructure creates conditions for increasing their efficiency and competitiveness. Innovative infrastructure allows companies to reduce the time and risks associated with the introduction of new products and services, as well as provides access to the necessary knowledge and technology. As a result, the successful functioning of the innovation infrastructure contributes to accelerating the growth of companies and urgently needed innovations in the economies of the countries.

Public policy plays an important role in creating and maintaining an effective innovation infrastructure. It includes legislative initiatives, financial support, and the development of strategies and programs aimed at stimulating scientific research and commercializing innovations. Clearly formulated policies can create a favorable ecosystem for businesses, paving

the way for investments and cooperation between government agencies, scientific organizations and the private sector.
The purpose of this study is to determine the impact of government policy on the creation of innovative infrastructure of enterprises and to analyze its consequences for economic growth. To achieve this goal, the following tasks have been identified:
1. To investigate the components of the innovation infrastructure and their interrelationships, as well as to assess their importance for increasing competitiveness;

2. Analyze the main content of the state policy in the field of innovation, including legislative initiatives and financial support;

3. Consider examples of successful government support programs, as well as identify problems and shortcomings in the implementation of existing measures.;

4. To assess the impact of government policy on specific enterprises through the analysis of empirical data and case studies;

5. Develop recommendations for improving government policy in the field of innovation infrastructure support.

These tasks will help in a deeper understanding of the problem under study and will provide practical recommendations for improving government policy in the field of innovation. [2]

Theoretical foundations of innovation infrastructure
Innovation infrastructure is a set of institutions, organizations, and interactions aimed at supporting and developing innovation processes in the economy. It includes not only research and educational institutions, but also financial, administrative and business structures that ensure the implementation of innovative ideas and technologies. The main components of the innovation infrastructure include scientific institutions such as universities and research institutes that are engaged in basic and applied research.; venture capital funds that provide financial resources for startups and new initiatives; incubators and accelerators that help young companies develop and enter the market; as well as technology parks and clusters that facilitate the concentration of resources and expertise. Each of these components plays an important role in the innovation process. Scientific institutions ensure the creation of new knowledge and technologies that can be commercialized. Venture capital, in turn, provides the necessary financial resources, which is especially critical for startups experiencing difficulties with access to traditional sources of financing. Incubators and business accelerators offer mentoring support and training programs that help aspiring entrepreneurs develop their ideas and turn them into viable businesses. Technoparks and clusters form ecosystems where knowledge and technology are exchanged, activating interaction between various participants in the innovation process.
The interaction between the components of the innovation infrastructure is a key factor that increases the efficiency of the entire innovation process. For example, the joint work of scientific institutions and businesses helps to identify market needs and adapt research to real conditions. The development of venture capital in partnership with incubators and accelerators creates additional opportunities for financing and implementing innovative projects. The synergy between all participants in the innovation ecosystem can significantly accelerate the process of developing and implementing new products and technologies.

The importance of innovative infrastructure for enterprises cannot be overestimated. Firstly, it helps to increase the competitiveness of companies by providing access to new knowledge, technologies and resources. In the context of global competition, the availability of a well-developed innovation infrastructure allows enterprises to adapt faster to changes in the market and respond effectively to challenges. Companies using the forces of innovative infrastructure can bring products to market faster, introduce modern technologies and offer unique solutions to customers.

Secondly, a well-organized innovation infrastructure reduces the risks associated with the introduction of innovations. Innovation is usually accompanied by high costs and uncertainty. However, the availability of support from scientific institutions and venture capital, as well as training and mentoring from incubators and accelerators, can significantly reduce these risks. For example, scientific institutions can verify ideas and prototypes, and venture capital companies can develop flexible financial models that meet the specific requirements of each project. [4]

Thus, innovative infrastructure plays a critical role in creating a favorable environment for the development of enterprises. It not only helps to increase their competitiveness and reduce the risks of innovation, but also creates conditions for long-term innovative growth and sustainable development of the economy as a whole.

Government policy in the field of innovation

It is difficult to imagine a modern economy without the active introduction of innovations, which requires states to form appropriate policies. The State policy in the field of innovation is aimed at creating and developing an innovative infrastructure, increasing the competitiveness of the national economy, as well as stimulating scientific research and development.

Deep structural transformations are underway in the Republic of Uzbekistan and important strategic objectives are being implemented. In accordance with the adopted Action Strategy for 2017-2021, it provided for "...the development and liberalization of the economy aimed at further strengthening macroeconomic stability and maintaining high economic growth rates, increasing its competitiveness, modernizing and intensively developing agriculture, continuing institutional and structural reforms to reduce the state's presence in the economy ...". As part of the implementation of these tasks, it is planned to implement economic policy measures aimed at optimizing the volume and structure of imports, unconditionally fulfilling the forecast parameters of exports and mobilizing reserves to further increase its volumes. Much attention is being paid to increasing the volume and expanding the range of exports of goods, works and services, and attracting unused reserves for additional exports, taking into account the current global market conditions.

An important factor in increasing the competitiveness of the national economy and expanding exports of high-tech products is its gradual transition to an innovative development path. According to reputable experts, "...in solving the full range of strategically important problems of various countries in the 21st century, a key role is assigned to innovation, innovation and the knowledge-based economy or innovation economy".

It is known that the transition to the path of sustainable development of such highly developed countries as the USA, Japan , a number of states of the European Union and Southeast Asia has been achieved mainly through the expansion of innovation processes in the real sector of the economy. The main factor in the effectiveness of innovation in many developed countries is the existence of an economic mechanism called To. Freeman's "National Innovation System" (NIS). It is precisely at its formation that the activities of the governments of a number of states have been aimed in recent years, intending to achieve significant success in world markets in conditions of instability and increased competition.

It should be noted that over the years of independence, Uzbekistan has generally formed a system of organizations, management and financing of research activities, established reputable scientific schools, and has an extensive scientific and organizational infrastructure. Significant work has been carried out aimed at strengthening the material and technical potential and increasing the effectiveness of research activities. A number of new scientific and innovative structures are successfully operating, such as the Center for Genomics and Bioinformatics., The International Institute of Solar Energy, a high-tech center with the participation of the University of Cambridge. The competitive products of these institutions are in demand in a number of countries around the world. The measures taken to mobilize the export potential of industries and regions have allowed for the growth of export supplies and a positive balance of foreign trade turnover.
According to statistics, Uzbekistan's exports for the first half of 2025 (January-June) amounted to $ 16.9 billion, which is 29.1% more than in the same period of 2024. In January-July 2025, exports reached US$20.1 billion (+34.9%).[5]

The main directions of the state policy in the Republic of Uzbekistan in the field of innovation are:
− support for scientific research and development. National scientific priorities are defined through strategic documents, and their implementation is supported through innovation centers and parks.
− development of human capital. An important aspect is the training of personnel for new industries, which is carried out through retraining and advanced training programs.
− stimulating private investment in innovative projects through tax incentives, subsidies and grants.
− creation of innovation clusters and advanced development zones where companies can access the most up-to-date research and resources.

There is an intensification of legislative initiatives aimed at simplifying the conditions for doing innovative business. One of the striking examples is the draft law on tax incentives for companies engaged in scientific research and development, which allows enterprises to reduce their costs and invest the saved funds in further innovations. In addition, new measures are being introduced to simplify obtaining patents and licenses, which contributes to faster implementation of new products and technologies.
Financial support remains a key instrument of government policy in the field of innovation. The main forms of its implementation are grants for scientific research and development provided through foundations such as the Science Financing and Innovation Support Fund.
Subsidies for the introduction of new technologies for small and medium-sized enterprises are offered through local and regional programs, as well as the Startup Grant program, which offers entrepreneurs financial support for the implementation of innovative projects in the field of information technology, biotechnology and other high-tech areas.
The implementation of strategies and programs, such as the National Digital Economy of Uzbekistan Program, continues, which aims to introduce digital technologies and increase their share in the economy. Strategies in the field of "Green" technologies and biotechnologies are also being developed, reflecting current changes in consumer preferences and the fight against climate change.

A practical study of the impact of government policy on enterprises

The impact of government policies on businesses can range from creating favorable conditions for growth to imposing restrictions that contribute to financial difficulties. This article is conducted in the format of a practical study, in which we will consider the research methodology, methods of data collection and analysis, as well as examples of successful and unsuccessful enterprises in the context of the impact of public policy. The study of the impact of government policy on enterprises includes several stages. First, hypotheses are formulated about how various aspects of government policy can affect business. Then the target group is determined – enterprises located in the zone of influence of a specific government initiative [6].

The main research methods are qualitative methods that include interviews with entrepreneurs and government officials. Quantitative methods using surveys and questionnaires to obtain statistical data on the topic under study. And case-stages, which are an in-depth analysis of individual cases illustrating the impact of government policy on enterprises. Case studies are one of the most effective research methods, allowing you to analyze the situation in specific enterprises and identify patterns of influence of government policy. To highlight the cases, various enterprises that have been affected by changes in government policy, such as legislative changes, taxes, subsidies, and regulation, are examined. Case analysis uses interviews with key participants, such as company executives, economists, and political scientists. These data help to gain a better understanding of how enterprise adaptation affects their productivity and success.

Innovative infrastructure plays an important role in supporting and developing businesses, especially in the face of global competition. In the business world, there are both successful and unsuccessful examples demonstrating the impact of government policy on the formation of an enterprise's innovation infrastructure.

In this context, several countries stand out for their successful strategies that have led to the creation and strengthening of innovation infrastructure.

Since its independent existence, Singapore has focused on creating a highly developed innovative economy. The government's policy was aimed at attracting foreign investment and developing its own technology sector. The main player in this direction has become the Singapore Economic Development Board (EDB) state fund, which actively attracts investments in science and technology. Key initiatives include subsidies and grants for startups and research projects, as well as the creation of technology parks such as Fusionopolis and Biopolis, which provide the necessary conditions for scientific research and development. The support of educational institutions contributes to the training of personnel for high-tech industries. As a result, Singapore has become a hotspot for many international technology companies such as Google and Facebook, which have opened their research centers in the country. This indicates a high level of innovation infrastructure and its ability to develop dynamically.

South Korea was able to quickly build an innovative infrastructure thanks to the "First Digital Nation" strategy. Key government policy measures include the development of modern IT infrastructures, such as 5G, which are actively supported by the government. A number of startup accelerators have also been created, such as Korea Startup Commons, aimed at supporting a new generation of entrepreneurs. In addition, investments in future technologies, such as artificial intelligence and robotics, have become an important part of government strategy. Thanks to these measures, South Korea has taken one of the leading positions in the world in terms of technology adoption. Well-known companies such as Samsung and LG have become global leaders in their industries, which allows them to have a significant impact on the global market.

Venezuela, which has one of the largest oil reserves in the world, decided to nationalize its economy in the early 2000s. The government assumed that this would provide support for domestic production and technological innovation. However, such actions have led to critical

problems. The restriction of private initiative due to the nationalization of important sectors of the economy has reduced the level of private entrepreneurial activity and led to a lack of investment. Increased government control and bureaucracy have made it difficult and expensive to launch new companies, which has paralyzed the innovation atmosphere. In addition, a combination of poor economic decisions and falling oil prices led to an economic crisis that exacerbated the development of innovative projects. Venezuela faced a catastrophic state of the economy and was forced to scale back its innovation efforts. Many enterprises could not develop and closed down, which negatively affected the overall level of technological progress in the country.

Brazil has actively tried to create conditions for innovative growth through the development of startup and high-tech support programs. One of these programs was the creation of a network of specialized incubators, represented through a system called SEBRAE. Despite the positive intentions, a number of problems have arisen. The lack of coordination between different levels of government has created differences in program implementation and licensing between regions. Limited funding for many programs has cast doubt on their effectiveness. In addition, weak support for entrepreneurship at the local government level has led to low levels of engagement and poor conditions for startups. Many startups were forced to close down or relocate to other countries where they were surrounded by a more favorable innovation environment. This has undermined confidence in government initiatives in Brazil and contributed to lower investment in the sector.

These examples clearly show how government policy can have a negative impact on the formation of an innovation infrastructure. From lack of funding and bureaucracy to failed programs and corruption, poorly thought-out government intervention can destroy innovation initiatives and slow down economic development. To avoid such mistakes, States should strive for an open dialogue with businesses and take into account the views of entrepreneurs when developing their policy strategies.

Conclusion: Thus, in order to achieve significant results in the formation of an innovative infrastructure, it is necessary to ensure targeted and integrated management in the field of public policy. The interaction of all parties — government, business and educational institutions — is the key to creating a successful innovation ecosystem that will contribute to the sustainable growth and development of enterprises in a rapidly changing world. The correct orientation of state policy in this area will create conditions for realizing the potential of enterprises and will lead to strengthening the economic stability and competitiveness of the country on a global scale.

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