



Current Problems of Regulation of Financial Mechanisms in Azerbaijan Technoparks

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ABSTRACT: The article examines the current challenges of regulating financial mechanisms in Azerbaijani technoparks. The problems of forming and developing technoparks are explained. The strategic role of financial mechanisms in strengthening the activities of technoparks is substantiated. The problems of attracting financial resources in the transfer of technologies and expanding production infrastructure are analysed. The issues of adapting the financial mechanisms of economic entities to the requirements of the modern era are considered. The processes of creating and developing technoparks in Azerbaijan are analysed. The role of state support mechanisms in the activities of technoparks is given. The problems of facilitating access to financial resources for residents registered in technoparks are brought to attention. The importance of applying various financial mechanisms and tools is stated. The decisive role of financial mechanisms in implementing innovation and investment projects by technopark residents is substantiated. Recommendations are being developed and proposals are being made to strengthen the financial mechanisms of technoparks in Azerbaijan in the near future.

KEYWORDS: Azerbaijan, technoparks, finance, financial mechanisms, financial instruments, investments, financial problems of technoparks.

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Introduction

In the context of global economic threats, the problems of attracting financial resources attract attention due to its considerable relevance. The consequences of the negative impact of the global financial crisis, which began in late 2008, have relatively weakened and complicated the movement of financial resources. In particular, the processes of attracting foreign investments and the issues of finding international financial donors have become more complex, with additional barriers. Therefore, the issues of accelerating economic development processes, attracting new economic mechanisms, and forming and regulating financial mechanisms for organising new economic tools and institutions have become decisive factors. The Azerbaijani economy has been undergoing considerable diversification processes in recent years. Thus, measures to diversify various sectors of the national economy have been implemented across all regions of the country, including central cities. The problems of forming and regulating financial mechanisms are also quite characteristic and essential for technoparks, which have begun to be intensively formed and developed in our country in recent years. It is therefore necessary to identify more efficient ways and prepare mechanisms for their solution.

In modern times, technological competition has entered a new stage due to the widespread use of the technopark institute in the USA and China. Currently, in many developing countries, including post-socialist and post-Soviet republics, the process of establishing a network of technoparks and enhancing the financing mechanisms for activities in this area is underway. Azerbaijan is no exception in this regard, since, as we have noted in our country, the processes of creating technoparks have already begun. The first technopark in the country is located in the Sumgayit industrial centre, and a strong potential for producing competitive industrial products in the field of electric power has been established. Thanks to the electric cables and electrical equipment and products of various sizes and powers produced here, the material and technical base of our country's energy sector has been updated in recent years, open power lines have been replaced with insulated power lines and upgraded underground. The products produced have not only met the demand in the local market but also formed export potential. Currently, the main goal and task is to master sustainable export markets and ensure access to global markets. The formation of sustainable and robust financial mechanisms is a crucial condition for all these processes.

In technoparks, intellectual resources and investors can combine their shared interests more quickly, making it possible to produce competitive technologies and science-intensive products. According to Academician A. Pashayev and Professor H. Mammadov: "Since the technopark is a relatively young, dynamically evolving, complex structure, it has a fairly variable concept. Even though technopark structures have been

transformed many times under the influence of changes in the economy and scientific and technological progress over the years of their existence, the system has been able to preserve its basic principles: the formation of an innovative entrepreneur with high characteristics; commercialization of high technologies based on competitive products and intellectual property" (Paşayev, A.M., Məmmədov, H.Ə., 2012).

Research Aim and Research Questions.

The primary purpose of writing this article is to justify the development and application of more efficient financial mechanisms for the growth and development of technoparks in the context of global challenges. In the new environment, there are serious problems in attracting financial and investment resources. Risks have increased, and residents of Technopark need more accessible financial and credit resources. Financing long-term innovation and investment projects faces serious challenges. Therefore, it is necessary to develop more attractive financial mechanisms and tools. The proposals and recommendations presented in the article have potential for enhancing the efficient development of financial mechanisms for newly established technoparks in Azerbaijan.

Research Results.

The processes of creating technoparks in Azerbaijan are gradually gaining momentum. In this regard, the issues of organising and developing the essential mechanisms of the technopark institute in accordance with the world's best practices are one of the key conditions. Technoparks are complex institutions, with a structure that is quite extensive. Thus, in addition to management units, this structure also includes more innovation-oriented institutions, such as innovation-technological centres, incubator-business centres, and institutions that provide advisory services (Alguliyev, R.M., Aliyev, A.G., Aliyev, Sh.T., Shahverdiyeva, R.O., 2014). On the other hand, it is of great importance to organise financial support for various activities required in the organisation of technoparks at a high level and to ensure that these mechanisms are effective. That is, it is essential to provide financial support and invite investment banks and venture funds to these processes. Unfortunately, such financial institutions and entities are currently nonexistent in our country. Therefore, the problems and mechanisms of financial support for technoparks, which aim to fulfil essential functions such as developing, preparing, and applying innovations, must be resolved at the highest level (Piana V., Aliyev, Sh.T., et al., 2009).

There should be mechanisms for high-level organisation of relations between customers and manufacturers of innovative products, as well as the creation of a favourable

operating environment for entrepreneurs. This includes the development of innovative entrepreneurship, with measures related to the transfer and adoption of high technologies, and financial support for these initiatives. The strategic tasks facing the first technopark established in our country, Sumgayit Technology Park, enable the diversification of our economy and the expansion of its structure. Among these tasks, the creation of a high-tech technopark in the region that produces strong and competitive industrial products, as well as the organisation of production areas consisting of innovations and based on high technologies, and the increase of the capabilities of non-oil sectors in general, including export potential, stand out the most (Алиев Ш.Т., 2014). However, for this purpose, the funds received only from limited sources or directed through the state investment program are not at the required level, and resources, financial resources and investments are required for the transfer of new technologies, as well as the development and application of new ideas, including the acceleration and expansion of foreign investment attraction. If the problems of attracting foreign investment and significant capital are solved, then it will be possible to expand relations with world-class companies and firms. Along with increasing the volume of production, the potential for mastering export markets will also increase, that is, residents operating in the technoparks of our country will have the opportunity to enter foreign markets more actively (Алиев, Ш.Т., 2015).

For this, attracting additional financial resources and investments acts as one of the main conditions. Taking into account these factors, strategic roadmaps, as well as other essential documents, state programs, and a complex of measures, have allocated a place for solving the financial problems of technoparks, and work on this can be considered at the initial stage in our country. Considering that the country's commercial banks are still not sufficiently active in directing preferential financial resources to lending to the real economy, this issue remains a constant topic of discussion. Thus, funds invested in the real sector do not bring income in a short time, and it is necessary to wait several years for this, which is why commercial banks prefer consumer loans. However, the development and implementation of a robust financial support mechanism for the technopark institution, which has the potential to make a significant contribution to ensuring the country's sustainable economic development, is a crucial issue.

It should be noted that the issues of developing an information society in our country are directly related to the priorities of technological and intellectual development, as well as the acceleration of digital technology applications. To address these strategic tasks, further efforts are required, and effective measures must be implemented to optimise the utilisation of society's existing intellectual potential. It is true that in our country, there is a great interest in high technologies and ICT services. Access to the Internet and its use are becoming widespread. However, there is a special need to strengthen activities in the direction of expanding the economy through the efficient use of information resources.

Technoparks are primarily established in our country for the purpose of developing, mastering, and applying innovative products (Алиев, Ш.Т., 2008). A significant part of the established enterprises and registered residents were able to provide for their activities thanks to the funds attracted by local investors, including through the use of specialised financial funds. To organise targeted investments that can significantly differ, more work should be done in technoparks, presentations of business-investment and innovation projects should be held, and measures should be taken to actively invite potential foreign investors to these areas (Агаев, С.Г., Алиев, Ш.Т., 2004).

In general, to strengthen the business environment and diversify financial sources, motivational measures should be implemented in technoparks. For example, specific results can be achieved by implementing measures to strengthen the processes of developing high technologies and innovations, attracting intellectual resources in this area to technoparks and directing the attention of potential investors to future profitable activities, that is, by creating technological business incubators. In connection with the expansion of innovation activities, the development and application of innovations undoubtedly require more financial resources, and the need to model financial mechanisms arose from this. The financial problem remains relevant at all times. As we mentioned earlier, the relevance of this issue is currently relatively high. Therefore, diversification and development of financial sources are essential conditions. Despite the existence of a legislative framework for the operation of financial-industrial groups in our country, it is challenging to register the activities of such financial institutions. On the other hand, if we consider that the development processes of specialised financial funds and investment companies are not sufficiently characteristic for our country, and problems persist in these areas. Technoparks have not yet been able to develop and apply more productive mechanisms in the development of innovation infrastructure in our country (Алиев, Ш.Т., 2009).

One of the directions for accelerating the development of technoparks and modelling financial mechanisms is the purposeful allocation of grants for high technologies and innovations, as well as holding grant competitions. Unfortunately, this mechanism is also poorly used in our country. Grant scientific competitions held by the Science Development Foundation under the President of the Republic of Azerbaijan, as well as other competitions that include innovations, are not accessible to a wide range of researchers, and grants are mainly awarded to specialised scientific research institutions. It is challenging to identify and establish the connection between the grant competitions held over the past five years and the innovation of our country's economy, particularly in relation to the projects implemented in technoparks, the scientific outcomes of these competitions, and the practical application processes.

It is no coincidence that many researchers specifically mention the lack of financial

resources as one of the reasons that slows down the development of innovations and the purchase of innovative products (Tağiyev, A.H., 2018). On the other hand, strengthening the innovation economy through tax breaks and incentives is a characteristic feature of technoparks (Musayev, A.F., 2014). In world practice, two sources of finance stand out as the primary sources of funding for the organisation of the most technologically advanced technoparks in leading and powerful countries worldwide: state-directed investments and funds from private investment companies. In addition, most of the privileges applied in the areas of activity with the status of special economic zones are also applied in technoparks, thus reducing the access of residents to financial resources and creating conditions and stimulating them to reinvest their income and funds in development directions such as reinvestment for a specific period of time (Əliyev, Ş.T., 2012).

The processes of creating technoparks in our country have also begun, as noted, and the financial mechanisms outlined above have been kept in the spotlight. Our first technopark is already operational, so the Sumgait Technologies Park, which has been in operation since 2009, has gone down in history as the country's first technopark. A strong material and technical base, as well as a production infrastructure, have been established in this technopark for the purpose of organising innovative development. The financial resources and capital investments directed by the state have played a significant role in creating such conditions. At the same time, on the other hand, stimulating privileges have also been determined to attract the financial resources of private sector entities to the development of technoparks and the expansion of their network.

Acceleration of the development of individual sectors of the national economy, especially science and technology-intensive sectors of the economy, requires the organisation of areas of activity that combine multifunctional economic and organisational mechanisms (Megits, N., Aliyev, S., Pustovhar, S., Bielialov, T., & Prokopenko, O., 2022). Of course, we have already noted that one of the mechanisms and forms of activity used in countries that have achieved greater economic breakthroughs and progress is the establishment of technoparks. There is experience in actively using technoparks in various forms in countries around the world. For example, in the USA, technoparks are actively utilised in the most complex areas of the economy and in the organisation of activities with a high scientific and technological intensity. In technoparks, a complex organisation of the processes involved in the development, preparation, and application of modern technologies with high scientific and capital intensity is carried out.

Additionally, various conditions exist for the development and implementation of modern technologies in technoparks. In the USA, 20% of the world's computing equipment and computer production is organised in the "Silicon Valley" technopark, established in 1983 at Stanford University in Boston, California. In addition, the concentration of creative

people, researchers, inventors, and designers in one place—technoparks –and the solution of financial problems related to technology development ultimately create conditions for achieving high results. Based on these, the production of more competitive and science-intensive export products increases, new sources of growth are formed in the country's economy, and the export potential increases significantly (Rodríguez-Pose, A., Hardy, D., 2014).

The processes of training highly qualified personnel and specialists in technoparks are more intensive, and the potential for studying the problems of the areas of activity selected as strategic directions, conducting research, and creating new competitiveness in accordance with market requirements is relatively high. In addition, the potential for complex organisation and development of areas of activity in technoparks enables the improvement and diversification of production structures (Yim, D.S., 2009). In world practice, technoparks have proven themselves as a field of activity that is also evaluated as quite productive in terms of the maximum efficient organisation of production processes. Here, there are favourable conditions for a more creative and productive organisation of production processes, which increases the motivation of top management, facilitates the modelling of production areas, and ensures the efficient use of raw materials and resources. Thus, the production links operating in technoparks have sufficiently mutually integrative features and functions. Technoparks are productive economic activity spaces operating based on economic and financial functions with favourable mechanisms, including financial mechanisms, from the point of view of organising the use of scientific and technical potential, and the adequate consideration and implementation of complex measures necessary for the application of modern technologies to production in this area (Алиев Ш.Т., 2008).

On the other hand, technoparks are of great importance in terms of introducing new technologies into the country's national economy, accelerating the attraction of non-oil investments, strengthening the potential of the non-oil sector, activating measures to modernize various sectors of the economy, especially the industrial sector, increasing the competitiveness of industrial enterprises, and intensifying the organization of science and innovation-intensive sectors of the economy. In general, technoparks are multifunctional territories where the interaction of science, production, finance, investment organisations, and service structures is concentrated, and they have the opportunity to operate and create new jobs effectively. These institutions have favourable conditions for organising production areas, applying scientific developments and inventions to production processes, strengthening the activities of small and medium-sized businesses, and effectively using human capital (Əliyev, Ş.T., 2018). As we mentioned earlier, the first technopark of our country is Sumgayit Technology Park. This park was put into operation in 2009, where the production of competitive industrial products was organised and

various production areas were created. The equipment and technologies put into operation in the park are mainly from developed countries. As we mentioned earlier, based on global experience, industrial parks can offer significant benefits through multifunctional economic mechanisms, contributing to the development of non-oil sectors in our country. According to Professor I.H. Aliyev, to achieve the development of non-oil industry, modernization of the economy, formation of an innovative and knowledge-intensive economy, expansion of competitive industrial production based on high technologies, the implementation of necessary measures should be ensured for the creation of industrial parks and complexes, and the creation of special economic zones, which are an essential part of industrial policy (Aliyev, I.H., 2014). In addition, the development of industrial parks based on high technologies is of great importance in implementing innovative projects and accelerating the innovation of the national economy. For these processes, along with targeted capital investment and allocation of financial resources by the state, measures should be considered to attract financial resources from the private sector, as well as investments by foreign investors (Алиев, Ш.Т., 2020).

Providing reliable financial mechanisms for investment and innovation projects accelerates innovative development, and industrial parks are considered beautiful forms of activity in terms of these factors (Liu, S., Liu, C., 2010). Thus, most countries of the world have given a serious impetus to the innovation processes of their national economies by creating and developing a network of technoparks. At the same time, technoparks are also within the circle of potential investors as an effective location for attracting investment and financial resources. Therefore, the mechanisms for supporting the development processes of technoparks by the state should be further strengthened, and the issues of their long-term financial provision should be resolved reliably. In return for all this, the role and place of technoparks in the innovative development of the economy should be clearly defined, and necessary measures should be taken for the effective organisation of this function (Бильдина, О.В., 2008). In practical activities, the issue of enriching technopark mechanisms with the most productive components attracts attention as a necessity. Taking this factor into account and providing financial mechanisms, technoparks are distinguished by greater flexibility and productivity.

A group of Azerbaijani researchers has drawn attention to the advantages of the technopark institute in the innovation of the national economy, in the processes of disseminating and applying innovations, and in the development of innovation strategies for enterprises. Technoparks, with their essential functions, can provide greater efficiency compared to other mechanisms of economic activity. The primary goal of creating technoparks is to conduct scientific, design, and technological work related to high technologies. The customers of the technopark themselves should determine the sources of financing. The basis of the activities of technopark customers is formed by production

activity. In addition, in many post-socialist and post-Soviet republics, the use of technoparks is widely preferred to accelerate economic development processes and ensure innovation in the national economy (Aliyev, S., Gulaliyev, M., Purhani, S., Mehdiyeva, G., & Mustafayev, E., 2024).

In this regard, it is possible to address these problems by creating high-tech technology parks. Since technology transfer involves transferring technology to an economic entity that implements its industrial adoption, a multifunctional area of activity, such as a technology park, is required. It is essential to support the development of the innovation structure and for this, to mutually coordinate the activities of central and regional innovation structures, and to create an environment of equal participation for subjects of science, industry and business in the implementation of innovation policy (Qasimov, F.N., Nəcəfov, Z.M., 2009). In our opinion, technoparks are well-equipped to handle these complex tasks due to their operational characteristics and mechanisms. The continuous measures taken in our country in this direction are already attracting attention, and importance is being attached to the creation and development of technoparks in individual vital sectors of the national economy. Such an approach can provide additional incentives for the gradual reduction of the country's economic dependence on oil and the acceleration of innovative development in the national economy. Thus, to ensure the innovative development of the non-oil sector, it is considered essential to intensively develop various areas of this sector based on high technologies and through the creation of competitive enterprises (Bədəlov, C.Ə., 2007). Taking into account the above, to breathe new life into the development processes of the national economy and increase the role of technoparks in the processes of attracting more efficient mechanisms into circulation, it is considered essential to determine more optimal ways of solving the problems of forming and developing financial mechanisms of economic entities and enterprises operating in these technoparks. Considering the real difficulties in obtaining resources for financial provision and strengthening financial stability in the modern era, the preparation and implementation of a more balanced and long-term financial strategy for residents operating in technoparks is a critical condition. In this case, the potential for significantly increasing the role of technoparks in accelerating the country's economic development will be further strengthened.

It should be noted that since technoparks are a network of enterprises with industrial facilities, production facilities, mini-factories that combine multifunctional financial and economic activities, for the stable and productive operation of these enterprises and structural units, constant intensive working capital, financial resources and investments are required to implement strategic projects (Əliyev, Ş.T., 2017). Therefore, productive financial sources and sustainable financial mechanisms should be established for resident enterprises registered in technoparks. Ensuring the effective utilisation of the financial

strategy of technoparks in three key directions and efficient operational mechanisms is a crucial condition. In general, innovative approaches should be given priority in managing financial flows and ensuring their efficiency (Инчин, М.Е., 2012). In the modern era, it is crucial to identify optimal financial sources for technoparks and their residents, actively utilise them, and implement measures to enhance the efficiency of investment and innovation projects (Əliyev, Ş.T., 2017).

However, unfortunately, the investment-innovation environment and its attractiveness, in line with global experience, have not been adequately provided in the country's technoparks to attract the foreign investments required for the implementation of large projects. Therefore, enterprises and mini-factories operating in technoparks do not utilise their production capacities to the design level, and opportunities for creating more jobs are not fully leveraged. On the other hand, for example, the products of the technopark in Sumgayit are currently mainly used within the country. To expand, adequate measures need to be taken and additional investments made to enter regional and global markets. Technoparks are attractive as a convenient economic tool in terms of creating compact production areas, activating small and medium-sized businesses, and organising the production of necessary goods and products (Əliyev, Ş.T., 2013). In addition, to effectively utilise the newly established technoparks in our country for their intended purpose, the financial stability and investment attractiveness of residents operating in these technoparks are of great importance. Thus, due to the favourable conditions created in technoparks, attracting foreign investments to enterprises operating here and their production areas becomes relatively easy (Məmmədova, E.B., 2018). Each enterprise or business entity must take continuous measures to ensure its financial stability and investment attractiveness. For this, enterprises, including those in technoparks, must have a financial stability policy concept, strategy, and tactics. It is worth noting that new industrial parks and free economic zones are currently being established in post-conflict areas (Aliyev, Sh., 2020). The creation of new economic mechanisms, including technoparks, can also yield positive results in accelerating the development of these areas (Алиев, Sh. Т., & Melykova, L. A., 2022). In view of the above factors, improving the financial mechanisms of technoparks is crucial for informed decisions regarding their establishment.

Conclusions.

We believe that, given the prospect of expanding the network of technoparks in Azerbaijan, measures should be taken to study world experience in this area in more depth and improve existing mechanisms:

- To strengthen the role of technopark residents in the country's economic development processes and the formation of new sources of growth for the

national economy, a financial strategy should be developed and implemented that takes into account their balanced and long-term perspectives on activity.

- The potential for utilising state support mechanisms to enhance the financial security of technopark residents should be objectively assessed, and measures should be taken to maximise the use of this potential for its intended purpose.
- The investment and innovation attractiveness of technopark residents should be strengthened, and cooperation with international investment and innovation institutions and funds should be expanded in accordance with the requirements of global economic challenges. Potential investors should be identified, and efforts should be made to attract foreign investors to technoparks in our country with increased intensity.
- Stimulation of innovation activity in Azerbaijan requires fundamental research on existing problems in the development and application of innovations to be ensured.
- There is a need to strengthen measures to update methodological and practical approaches to improve financial issues and financial mechanisms in technoparks, in line with current requirements.

References

- Aliyev, İ. H. (2014). Qeyri-neft sənayesinin inkişaf strategiyası. *Azərbaycan xəbərləri*. Retrieved from <http://www.azerbaijan-news.az/>
- Bədəlov, C. Ə. (2007). *Azərbaycan sənayesinin innovasiya tipli inkişaf istiqamətlərinin formalaşması məsələləri*[Unpublished candidate dissertation]. Bakı.
- Əliyev, Ş. T. (2020). Qarabağ və Şərqi Zəngəzur iqtisadi rayonlarının yaradılmasının strateji aspektləri. *Geostrategiya*, 05/06(59/60), 67–72.
- Əliyev, Ş. T. (2013). *Azad iqtisadi zonalar*. Sumqayıt: Sumqayıt Dövlət Universiteti.
- Əliyev, Ş. T. (2018). *Azərbaycan iqtisadiyyatı*. Sumqayıt: SDU-nun Redaksiya və nəşr işləri şöbəsi.
- Əliyev, Ş. T. (2017). Azərbaycanda maliyyə sabitliyinin təmin edilməsi problemləri və maliyyə-kredit sisteminin inkişafının müasir aspektləri. *Audit*, (3), 26–40.
- Əliyev, Ş. T. (2012). *Xüsusi iqtisadi zonaların tətbiqi problemləri*. Bakı: Azərbaycan Respublikasının Prezidenti yanında Elmin İnkişafı Fondu.
- Qasimov, F. N., & Nəcəfov, Z. M. (2009). *Innovasiyalar: yaradılması, yayılması və inkişaf perspektivləri*. Bakı: Elm.
- Məmmədova, E. B. (2018). *Maliyyə*. Bakı: Kooperasiya Nəşriyyatı.
- Musayev, A. F. (2014). *Innovasiya iqtisadiyyatı və vergi stimullaşdırması*. Bakı: Azərbaycan Universiteti Nəşriyyatı.

- Paşayev, A. M., & Məmmədov, H. Ə. (2012). Texnopark innovasiya əsaslı, elmtutumlu və rəqabət qabiliyyətli iqtisadiyyatın yaradılması vasitəsidir. Retrieved from <http://www.anl.az/down/meqale/azerbaycan/2012/yanvar/230045.htm>
- Tağıyev, A. H. (2018). *İnnovasiya (nəzəri və tətbiqi səpkidə)*. Bakı: Təknur.
- Alguliyev, R. M., Aliyev, A. G., Aliyev, Sh. T., & Shahverdiyeva, R. O. (2014). Development of information support systems for management of innovative structures. In *Proceedings of the 8th IEEE International Conference on Application of Information and Communication Technologies (AICT2014)* (pp. 378–382). Astana, Kazakhstan.
- Aliyev, S., Gulaliyev, M., Purhani, S., Mehdiyeva, G., & Mustafayev, E. (2024). Comparative assessment of energy security level: The case of the South Caucasus countries. *International Journal of Energy Economics and Policy*, 14(1), 651–662. <https://doi.org/10.32479/ijeep.14984>
- Liu, S., & Liu, C. (2010). Management innovation of IT project managers. In *Proceedings of the 3rd International Conference on Information Management, Innovation Management and Industrial Engineering (ICIII)* (pp. 62–65).
- Megits, N., Aliyev, S., Pustovhar, S., Bielialov, T., & Prokopenko, O. (2022). The “Five-Helix” model as an effective way to develop business in Industry 4.0 of selected countries. *Journal of Eastern European and Central Asian Research*, 9(2), 357–368. <https://doi.org/10.15549/jeecar.v9i2.920>
- Piana, V., Aliyev, Sh. T., et al. (2009). *Innovative economic policies for climate change mitigation*. Rome: Economics Web Institute.
- Rodríguez-Pose, A., & Hardy, D. (2014). Are parks in emerging countries delivering? Technology and industrial parks in emerging countries. In *SpringerBriefs in Regional Science* (pp. 67–95). Springer.
- Yim, D. S. (2009). Management issue of government-initiated innovation cluster: Case of Gwanggyo Techno-Valley. In *PICMET 2009 Proceedings* (pp. 857–877). Portland, OR, USA.
- Agayev, S. G., & Aliyev, Sh. T. (2004). *Problems and prospects of trade and economic relations of Azerbaijan with Russia*. Baku: Elm.
- Aliyev, Sh. T. (2014). Modeling the innovatization of the national economy in modern conditions. *Scientific Review*, (6), 342–346. Retrieved from <http://www.sced.ru/>
- Aliyev, Sh. T. (2020). Topical issues of Azerbaijan’s economic security during the pandemic and post-pandemic period. *Proceedings of ANAS, Institute of Economics*, (5), 5–12. Retrieved from http://economics.com.az/images/fotos/xeberler_pdf/2020_5/1.Shafa.pdf
- Aliyev, Sh. T. (2009). The importance of applying new economic instruments in Azerbaijan’s economy. *National Interests: Priorities and Security*, (9), 80–84.
- Aliyev, Sh. T. (2015). *Foreign economic policy of Azerbaijan*. Sumgait: Sumgait State University Publishing House.

- Aliyev, Sh. T. (2008). Issues of economic growth and financial resources of Azerbaijan in the context of the oil factor. *Finance and Credit*, (30), 61–64.
- Aliyev, Sh. T. (2008). *Problems of organization and prospects for the development of special economic zones*. Baku: Nauka.
- Aliyev, Sh. T., & Melikova, L. A. (2022). Current problems and objective realities of world experience in restoring territories liberated from occupation. In *Proceedings of the 9th International Scientific and Practical Conference "Development of Science and Practice in a Globally Changing World under Risks"* (pp. 277–286). Moscow, Russia. Retrieved from <http://adm.nauka20-35.ru/Files/ArticleFiles/8f3daa80-dcee-4e22-98f2-3ccd41631497.pdf>
- Bildina, O. V. (2008). *State support for technoparks as an organizational form of development of the innovative sphere of the national economy* [Unpublished doctoral dissertation]. Moscow.
- Inchin, M. E. (2012). *Financial mechanism for implementing innovation policy in the context of economic modernization* [Unpublished doctoral dissertation]. Saratov.