INNOVATIVE POTENTIAL ACI AS AN OBJECT MANAGEMENT (IN THE EXAMPLE OF HYDROPONICS)

Umarov Sukhrob Rustamovich¹, Durmanov Akmal Shaimardanovich²

¹Doctor of Economics, Professor of the Department of Economics, Tashkent Institute of Irrigation and Agricultural Mechanization Engineers (TIIAME) - National Research University, 100000, Uzbekistan, Tashkent, Kari Niyaziy str., 39, Orcid: 0000-0003-3854-7696

²doctoral Student of the Department of Economics, Tashkent Institute of Irrigation and Agricultural Mechanization Engineers (TIIAME) - National Research University, 100000, Uzbekistan, Tashkent, Kari Niyaziy str., 39, Branch of the Astrakhan State Technical University in the Tashkent region of the Republic of Uzbekistan, 100000, Tashkent region, Kibray district, Universitetskaya str., 2 Orcid: 0000-0003-3947-4986

- ANNOTATION -

The article considers the issues of innovative development of the agro-industrial complex of the national economy. The study analyzed the socio-economic situation of the Republic of Uzbekistan in the agricultural sector, identified the features of the flow of innovative processes characteristic of this area, proposed measures necessary to stimulate the innovative transformation of agricultural territories, in addition, studied the innovative potential of the agro-industrial complex as an object of management.

KEYWORDS. Innovation, development, regional agro-industrial complex, state support, hydroponics, techno park.

INTRODUCTION

To date, the specificity of innovation management in economic entities that form the structure of the regional agro-industrial complex is indisputably that the functions of organizing and managing innovation and investment processes are systematically flowing, as a rule, to those regions where the levels of science intensity and concentration of production are high, large corporate formations of the regional economy are concentrated [1,2].

The effective exploitation of the innovative potential of the agro-industrial complex of the state, its territorially isolated formations and agricultural economic entities, in particular, is the main prerequisite for creating a rational, efficiently operating and managed innovation system, taking into account that the main difficulties of this process in the modern economy are of a systemic nature.

The modern innovation process in the regional agro-industrial complex is a kind of cycle, including the acquisition of scientific knowledge, the development of technologies, the implementation of specific forms of innovation. Together At the same time, the management of innovations in the agroindustrial complex of the region appears as a cyclical process, characterized by the sequence of implementation of measures for the development of innovations.

Actually, the presence of an applied result due to the use of innovative products indicates positive transformations of the elements of the innovation system in the process of managing the innovation potential of the regional level [3,4].

The current lack of a clear system for managing innovative potential does not allow developing an effective development strategy.

The systemic complexity of the current state of the agricultural sector of Uzbekistan gives grounds for deriving a solution to the problem, which consists in prioritizing roles, functions, tasks, goals and directions of innovative stimulation of agricultural development.

Such priorities are of great importance, since they are included not only in the foundations of the methods of strategic agrarian innovative development, but also in the business plans of small agricultural enterprises, the conceptual unity of which in itself ensures unity in the general policy of innovative development of the country's agricultural production. Umarov, S. [5] believes that in order to concentrate limited innovative budgetary resources important form So called "serial-parallel system of measures for innovative development".

The most important economic unit is enterprises and organizations whose activities are aimed at meeting public needs in economic benefits, creating new jobs, replenishing budgets at different levels. At the same time, economic entities are naturally interested in obtaining and maximizing their profits, reducing production costs, in particular, by reducing the tax burden, maximizing the attraction and use of budgetary funds to finance their activities, etc. [6].

Furthermore, even within a single economic subject, both open and hidden conflicts of interest can be traced, and, above all, in the plane of differentiation of society into owners, managers, employees, intermediaries, shareholders [8]. For example, the interests of employees are based on the preservation of the workplace and stable salary pay, with positions owner - This receiving maximum profit with a minimum expenditure of economic resources belonging to him, as well as the realization of his rights as an owner, etc.

In turn, state bodies at the regional level, when formulating innovation policy, should take into account the interests of all industries operating in the region, both actively developing and depressed ones. The lack of clear and justified managerial decisions is fraught with a bias towards the development of effectively functioning and developing entities and an increasing degradation of economically weak subjects of innovative relations [7].

These circumstances dictate the objective need to determine the general and private interests of the functioning of the subjects of innovation activity in order to develop specific measures for their optimal coordination, which in turn will ensure their full satisfaction [9].The rational organization of management of the innovative potential of the regional agro-industrial complex should contribute to such a construction of relations between the subjects of innovative activity, in which their interests will largely coincide or, in any case, not contradict each other.

MATERIALS AND METHODS

The purpose of the study is to develop theoretical and methodological provisions and

substantiate practical recommendations for improving the management of the innovative potential of the agro-industrial complex.

According to the goal set, the following tasks of the dissertation work were solved: to clarify the conceptual and methodological model of the formation of the innovative potential of the agroindustrial complex; explore methodological approaches to assessing regional innovation potential;

RESULTS AND DISCUSSION

Having studied various methodological approaches, we propose the following method for determining the level of organization of management of the innovative potential of the regional agro-industrial complex, which involves the calculation of key integral indicators characterizing the state of innovative processes in the context of its components, and the calculation of the complex indicator of the same name.

Thus, the calculation of a complex indicator of the level of organization of management of the innovative potential of the agro-industrial complex of the region implies the differentiation of the innovative potential of the regional agro-industrial complex into four aggregated components that form it - economic resources, organizational and economic mechanism, consistency of innovative interests and achievement of innovative goals (effectiveness). Each component provides calculation some of the most visually characterizing her display of tel. At the same time, the proposed indicators are not comparable with each other (primarily in terms of units of measurement, scales and levels of calculated values). However, the definition of a complex indicator is supposed to be carried out taking into account the use of the principle of additivity, which assumes that the value of the calculated value characterizing the object as a whole will be equal to the sum of the values of the values characterizing its components.

Based on the results of calculating partial indicators, it is proposed to assign the following values to the component criteria - "0", "0.5" or "1". For example, if a private indicator corresponds to a "normal" value, then it is assigned grade "one", if threshold - grade "0.5" and below threshold - score "0" (table 2).





Table 1. Methodology definitions integrated indicator level organization of management of the innovative potential of the agro-industrial complex of the region

	Designation	Criterial Grade Components				
Indicator		Absolute	Threshold (Rav -	Critical		
		(Equals One)	But 0.5)	(Equals 0)		
1	2	3	4	5		
Economic resources and potential them implementation						
share workers with higher about education, %	RVO	growth in dynamics	without changes	reduction in dynamics		
share staff, busy research, and development mi, %	R IR	growth in dynamics	without changes	reduction in dynamics		
capital- labor ratio, (Conditional unit)/ people	FW	growth in dynamics	without changes	reduction in dynamics		
Coefficient validity OF	Kyear	more 0.5	0.3-0.5 _	< 0.3		
Coefficient updates OF	Toupdate	more 0.1	less 0.1	0 (negligible small		
share investment in basic capital in GRP, %	DI	growth in dynamics	without changes	reduction in dynamics		
share costs on the ICT in GRP, %	DICT	growth in dynamics	without changes	reduction in dynamics		
final criterion	K ER	(RVO + RIR + F)	W + Kyear + Toupdate	e + DI + DICT) / 7		
	Organizatio	nal and economic mecl	hanism			
Availability of an innovative development strategy	With IR	decorated integral strategy	fragmentary elements strategies _	Strategy absent _		
Existence of a legislative and regulatory framework for regulating innovation activities	ZID	systemic regularly updated database	individual unsystematic laws and regulations acts	base missing _		
Availability of a program of regional support for innovation development subjects innovative activities	P IR	complete _ innovation program	fragmentary elements innovative _ about grams	innovative program from - absent		
Availability specialized structures coordinating innovation activity regional subjects	SS ID	there are take an active part in coordinating	there are not are active	missing		
Volume funding inno- rational development of the region, mln (Conventional unit)	FIR	growth in dynamics	without changes	reduction in dynamics		
final criterion	TO OEM	(With $IR + Z ID + P$	(IR + SS ID + FIR) / 5	5		
Consistency innovative interests						
share profitable enterprise - ty,%	D PP	growth in dynamics	without changes	reduction in dynamics		
share debt on taxes in total tax payments, %	D ZN	reduction in dynamics	without changes	growth in dynamics _		



Volume subsidies and subsidies (compensation) commodity producers, mln (unit)	SD	growth in dynamics	without changes	reduction in dynamics	
Level payment labor work- nicknames, %	OT_	growth in dynamics	without changes	reduction in dynamics	
The presence of debt payment of wages to employees of enterprises	W RFP	is absent	short-term	permanent	
final criterion	TO SII	(D PP + D ZN + SD)	$+ OT_{+} W RFP) / 5$		
Efficiency (achievement innovative goals)					
share innovative active managing subjects, %	D IAP	growth in dynamics	without changes	reduction in dynamics	
The share of innovation - nyh goods in general sales volume, %	DIT	growth in dynamics	without changes	reduction in dynamics	
Expenses managing sub - projects on the research and de- veloped , mln (unit)	W IR	growth in dynamics	without changes	reduction in dynamics	
Profitability sales rural agricultural products, %	R prod	growth in dynamics	without changes	reduction in dynamics	
GRP on the soul population, (Conditional unit)	GRP	growth in dynamics	without changes	reduction in dynamics	
final criterion	K REZ	(D IAP + D IT + W)	IR + R prod + GRP) / 5	5	
Complex indicator level organizations management - nia innovative potential of the agro- industrial complex of the region	K IP	(K ER + TO OEM + TO SII + K REZ)/4			

Source: developed author

Determination of a complex indicator of the level of organization of management of the innovative potential of the agro-industrial complex of the region is associated with the use of the arithmetic mean quantities, which calculated as the average term, in the calculation of which the total volume of the attribute is distributed equally among all elements of the population. all the declared indicators have an equilibrium influence in the formation of the final indicator. As a result, the share of each component in the structure of innovation potential is 0.25 (distribution over four components). The level of organization of management of the innovative potential of the regional agro-industrial complex can be determined on the basis of the following characteristics (table 2).

This methodological approach suggests what

Table 2. Determination of the levels of organization of management of the innovative potential of	' the
agro-industrial complex of the region (In the example of hydroponics)	

Level organizations management innovative potential AIC region	Interval integrated indicator		
Critical	0–0.25		
Short	0.26–0.50		
Average	0.51–0.75		
Tall	0.76–1.00		

Source: developed author

Thus, as a result of determining the arithmetic average private indicators for each component and, on their basis, calculating a complex indicator, the level of organization of management of the innovative potential of the regional agro-industrial complex can be established. Based on the



understanding that the maximum value of the complex indicator is one and what's in its composition included four components, the equal importance of each of them in its formation and, consequently, the impact on the final level of management organization is implied. This predetermined the formation of the intervals of the complex indicator (the step is 0.25).

CONCLUSION

In general, the organization of the system for managing the innovative potential of the agroindustrial complex of the region should be based on certain immutable rules and existing restrictions, which together form the principles of such an organization. This is, first of all, the implementation of the principles of goal-setting, integrity, structuredness, consistency, hierarchy, functionality, openness, concentration and optimal combination of resources and a number of others.

REFERENCES

- 1. Mirziyoev Sh.M. Message of the President of the Republic of Uzbekistan Shavkat Mirziyoyev to the Oliy Majlis / People's Word, December 28, 2019
- 2. On the state program for the implementation of the action strategy in five priority areas of development of the Republic of Uzbekistan in 2017 2021 in the "year of active investment and social development". Decree of the President of the Republic of Uzbekistan No. UP-5635 dated January 17, 2019//National Legislation Database, January 18, 2019, No. 06/19/5635/2502
- Umarov, S. R., Durmanov, A. S., Kilicheva, F. B., Murodov, S. M. O., & Sattorov, O. B. (2019). Greenhouse vegetable market development based on the supply chain strategy in the Republic of Uzbekistan. International Journal of Supply Chain Management, 8(5), 864–874.
- Umarov S.R. Innovative development and main directions of water management. Scientific Electronic Journal "Economics and Innovative Technologies". No. 1, January-February 2017. http://www.iqtisodiyot.uz/sites/default/files/maqolala r/6_S_Umarov.pdf
- Nurimbetov, T., Umarov, S., Khafizova, Z., Bayjanov, S., Nazarbaev, O., Mirkurbanova, R., & Durmanov, A. (2021). Optimization of the main arameters of the support-lump-breaking coil. Eastern-European Journal of Enterprise Technologies, 2(1–110), 27– 36. https://doi.org/10.15587/1729-4061.2021.229184
- 6. Umarov, S. R. (2017). Innovative development and main directions of water management. Economy and Innovative Technologies, (1). Available at:https://goo.gl/eEHSJK. (in Uzbek).
- 7. Umarov, S. (2018). Scientific-theoretical basis of innovative development water resources of Uzbekistan. Bulletin of Science and Practice, 4(12), 409-415. (in Russian).
- 8. Durmanov, A., Umarov, S., Rakhimova, K., Khodjimukhamedova, S., Akhmedov, A., & Mirzayev, S. (2021). Development of the organizational and

economic mechanisms of greenhouse industry in the Republic of Uzbekistan. Journal of Environmental Management and Tourism, 12(2), 331–340. https://doi.org/10.14505//jemt.v12.2(50).03

- Shaulska, L., Kovalenko, S., Allayarov, S., Sydorenko, O., & Sukhanova, A. (2021). Strategic enterprise competitiveness management under global challenges. Academy of Strategic Management Journal, 20(4), 1–7.
- Shamborovskyi, G., Shelukhin, M., Allayarov, S., Khaustova, Y., & Breus, S. (2020). Efficiency of functioning and development of exhibition activity in international entrepreneurship. Academy of Entrepreneurship Journal, 26(Special Issue 4), 1–7.
- Ubaydillayev A.N., Kholmuratova G.M., Umarov S.R., Muradov R.A., Durmanov A.S. (2020). Heat and Energy-Economic Analysis for Greenhouses of the Republic of Uzbekistan. International Journal of Advanced Science and Technology Vol. 29, No. 8, (2020), pp.3285-3298
- 12. Белый В.С. История гарнизона Васьково. В книге: Арутюнова Г.И., Атаев З. В., Белый В.С., Братков В.В., Галаутдинова В.В., Григорьева Т.М., Дурманов А.Ш., Железная А.Б., Кудина М.В., Ла-пина С.Б., Ли М.Р., Мельников С.В., Минаков А.В., Мыльникова Е.М., Нагибина Н.П., Рудюк М.Ю., Тулабоев А.К., Холуденева А.О., Чекайкин С.В., Черновалова Г.А. и др. Интеллектуальный капитал и инновационное развитие экономики, науки и об-разования. Монография. Пенза, 2019. С. 99-119.
- Durmanov, A., Kalinin, N., Stoyka, A., Yanishevska, K., & Shapovalova, I. (2020). Features of application of innovative development strategies in international enterprise. International Journal of Entrepreneurship, 24(1 Special Issue), 1–9.
- 14. Tkachenko, S., Berezovska, L., Protas, O., Parashchenko, L., & Durmanov, A. (2019). Social partnership of services sector professionals in the entrepreneurship education. Journal of Entrepreneurship Education, 22(4).
- Durmanov, A. S., Tillaev, A. X., Ismayilova, S. S., Djamalova, X. S., & Murodov, S. M. ogli. (2019). Economic-mathematical modeling of optimal level costs in the greenhouse vegetables in Uzbekistan. Espacios, 40(10).
- Shulga, O., Nechyporuk, L., Slatvitskaya, I., Khasanov, B., & Bakhova, A. (2021). Methodological aspects of crisis management in entrepreneurial activities. Academy of Entrepreneurship Journal, 27(SpecialIssue 4), 1–7.
- Durmanov, A., Bartosova, V., Drobyazko, S., Melnyk, O., & Fillipov, V. (2019). Mechanism to ensure sustainable development of enterprises in the information space. Entrepreneurship and Sustainability Issues, 7(2), 1377–1386. https://doi.org/10.9770/jesi.2019.7.2(40)
- Omelyanenko, V., Khasanov, B., Kolomiyets, G., Melentsova, O., & Pominova, I. (2020). Strategic decisions in the system of management of innovation activity of enterprises. Academy of Strategic Management Journal, 19(6), 1–7.
- Borysenko, O., Pavlova, H., Chayka, Y., Nechyporuk, N., & Stoian, O. (2021). Increasing efficiency of entrepreneurial potential in service

sector. International Journal of Entrepreneurship, 25(6).

- Hilorme, T., Tkach, K., Dorenskyi, O., Katerna, O., & Durmanov, A. (2019). Decision making model of introducing energy-saving technologies based on the analytic hierarchy process. Journal of Management Information and Decision Sciences, (4), 489–494.
- Khaustova, Y., Durmanov, A., Dubinina, M., Yurchenko, O., & Cherkesova, E. (2020). Quality of strategic business management in the aspect of growing the role of intellectual capital. Academy of Strategic Management Journal, 19(5), 1–7.
- Durmanov, A., Umarov, S., Rakhimova, K., Khodjimukhamedova, S., Akhmedov, A., & Mirzayev, S. (2021). Development of the organizational and economic mechanisms of greenhouse industry in the Republic of Uzbekistan. Journal of Environmental Management and Tourism, 12(2), 331–340. https://doi.org/10.14505//jemt.v12.2(50).03
- Umarov, S. R., Durmanov, A. S., Kilicheva, F. B., Murodov, S. M. O., & Sattorov, O. B. (2019). Greenhouse vegetable market development based on the supply chain strategy in the Republic of Uzbekistan. International Journal of Supply Chain Management, 8(5), 864–874.
- Nurimbetov, T., Umarov, S., Khafizova, Z., Bayjanov, S., Nazarbaev, O., Mirkurbanova, R., & Durmanov, A. (2021). Optimization of the main arameters of the support-lump-breaking coil. Eastern-European Journal of Enterprise Technologies, 2(1–110), 27– 36. https://doi.org/10.15587/1729-4061.2021.229184
- Durmanov, A., Bayjanov, S., Khodjimukhamedova, S., Nurimbetov, T., Eshev, A., & Shanasirova, N. (2020). Issues of accounting for organizational and economic mechanisms in greenhouse activities. Journal of Advanced Research in Dynamical and Control Systems, 12(7 Special Issue), 114–126.
- https://doi.org/10.5373/JARDCS/V12SP7/20202089 26. Durmanov, A., Li, M., Khafizov, O., Maksumkhanova, A., Kilicheva, F., & Jahongir, R. (2019). Simulation modeling, analysis and performance assessment. In International Conference on Information Science and
- Communications Technologies: Applications, Trends and Opportunities, ICISCT 2019. Institute of Electrical and Electronics Engineers Inc. https://doi.org/10.1109/ICISCT47635.2019.9011977
- Durmanov, A., Tulaboev, A., Li, M., Maksumkhanova, A., Saidmurodzoda, M., & Khafizov, O. (2019). Game theory and its application in agriculture (greenhouse complexes). In International Conference on Information Science and Communications Technologies: Applications, Trends and Opportunities, ICISCT 2019. Institute of Electrical and Electronics Engineers Inc. https://doi.org/10.1109/ICISCT47635.2019.9011995
- Atakhanova, N. E., Almuradova, D. M., Khakimov, G. A., Usmonova, S. T., & Durmanov, A. S. (2020). Values of a mathematical model for predicting the survival of patients with triple negative breast cancer depending on androgen receptors. International Journal of Pharmaceutical Research, 12(3), 695– 704. https://doi.org/10.31838/ijpr/2020.12.03.104
- 29. Shaulska, L., Kovalenko, S., Allayarov, S.,

Sydorenko, O., & Sukhanova, A. (2021). Strategic enterprise competitiveness management under global challenges. Academy of Strategic Management Journal, 20(4), 1–7.

 Shamborovskyi, G., Shelukhin, M., Allayarov, S., Khaustova, Y., & Breus, S. (2020). Efficiency of functioning and development of exhibition activity in international entrepreneurship. Academy of Entrepreneurship Journal, 26(Special Issue 4), 1–7.