



THEORETICAL BASICS MANAGEMENT OF THE INNOVATIVE POTENTIAL OF AIC REGION

Mamasadikov Abror Anvarovich

*Tashkent Institute of Irrigation and Agricultural Mechanization Engineers (TIAME)
National Research University (100000, Uzbekistan, Tashkent, Kari Niyaziy str., 39)
Orcid: 0000-0003-4050-5719*

ABSTRACT

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, the following tasks of the work were solved: to identify the features of managing the innovative potential of the agro-industrial complex; to give an economic assessment of the current state of the agro-industrial complex of the region; explore the innovative potential of the agro-industrial complex and the organization of its management.

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

INTRODUCTION

The scientific economic community today is increasingly and more actively appealing to the already popular term “innovation”. In the general economic development of the country, the policy of innovative development of enterprises is being updated, which is caused by global changes in the world economy.

Innovations can be created in the form of new or improved products that provide value and, as a result, are in high demand among consumers; new processes and technologies for the production of already manufactured products, new solutions in the field of marketing and organization, providing growth volumes sales, promotion prices and enterprise management efficiency. All innovations, as a rule, during their development require large expenditures of funds, characterized by high innovation risks. These risks are especially high when creating new products, for which the volume of effective demand on the market is not yet known. These are the riskiest areas in the innovation and investment activities of enterprises. Technological innovation also requires big investment. But these investments are necessary mainly for the acquisition of new equipment, licenses for the use of ready-made technologies and, in our opinion, are less risky than product innovations, since an enterprise that modernizes its technical and technological base on the basis of innovations may have sufficient information about the expected efficiency of using a new type of equipment, machinery, etc. Others kinds innovation, although and

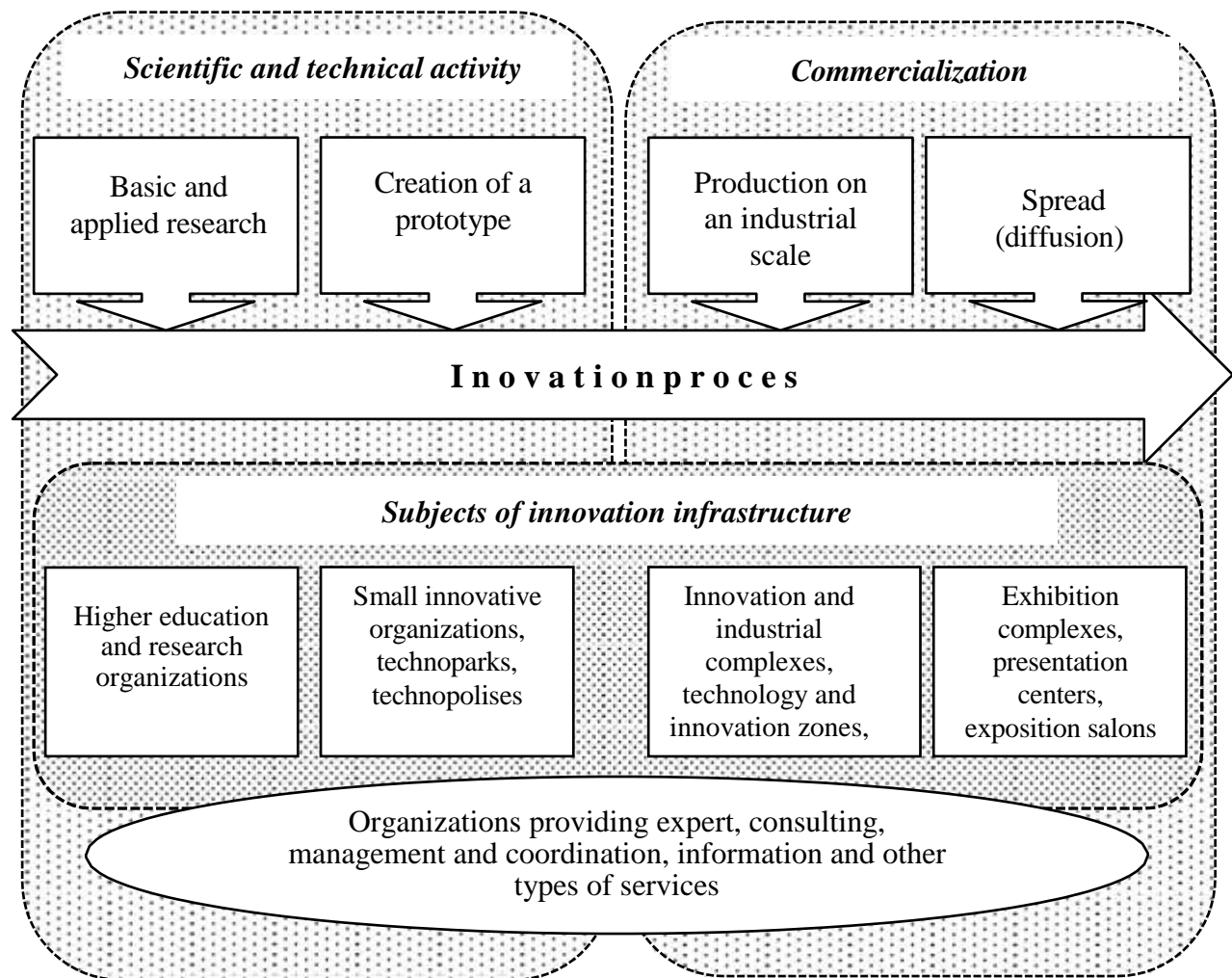
also are risky require usually a relatively small investment. These include innovations in marketing and organization. These innovations can be implemented in the form of new approaches in advertising, new elements in the organizational structure of management, etc.

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 agro-industrial complex; explore methodological approaches to assessing regional innovation potential;

RESULTS AND DISCUSSION

The very definition of “innovation” is used in domestic science and practice both autonomously and as part of definitions of similar concepts – “innovative environment”, “innovative process”, “innovative activity”, “innovative system”, “innovative potential” and the like. The basis of innovative activity – the activity of creating and mastering innovations – is the innovative process, which originates from the appearance of an idea and ends with its commercialization (Figure 1).



Picture 1. Content stages and stages innovative process Source: [1, 8]

Successful development domestic economy direct way connected with the implementation of innovative activities, with its constant development. Without carrying out independent innovation activities, a country that imports advanced technologies will inevitably become highly dependent, which will lead to the degradation of economic potential and economic backwardness.

In this regard, it is necessary to constantly identify and further effectively use any opportunities that will contribute to the improvement and further progressive development of innovative activities and innovative processes.

The key goal of any innovation system, as a rule, is always to ensure the continuous process of formation of the latest competencies and, at the same time, the applied nature of technical, technological, organizational, economic and other innovations that are in demand by the modern economy.

Thus, the innovation system can be characterized as the unity of the elements that form the basis of innovation activity, which function in interconnection and interdependence for the deterministic development of the economic system, through the implementation of innovative programs and projects [2, 9, 10]. At the same

time, the differentiation of innovative systems is mediated by the corresponding levels of economic systems.

In addition, the presence of “linking” processes in the implementation of economic development plans mediates the so-called “non-stationarity of economic processes and systems”, what expressed in permanent transformation at all levels of the economy of the characteristics of these processes and systems and the absence of the probability of obtaining their initial state [3, 11, 12].

The specifics of creating an innovative system of the agro-industrial complex in comparison with other sectors of the economy is to overcome negative factors that negatively affect the flow of innovative processes. Primarily, Availability significant contradictions between powerful scientific the potential of the agro-industrial complex and the extremely low productivity of scientific activity.

In addition, the agricultural sector is subject to the negative impact of such factors as natural (weather, climate) volatility, significant “aging” of the rural population, lack of appropriate professional competence of agricultural workers, insufficient investment in the agro-industrial complex, backwardness or complete degradation

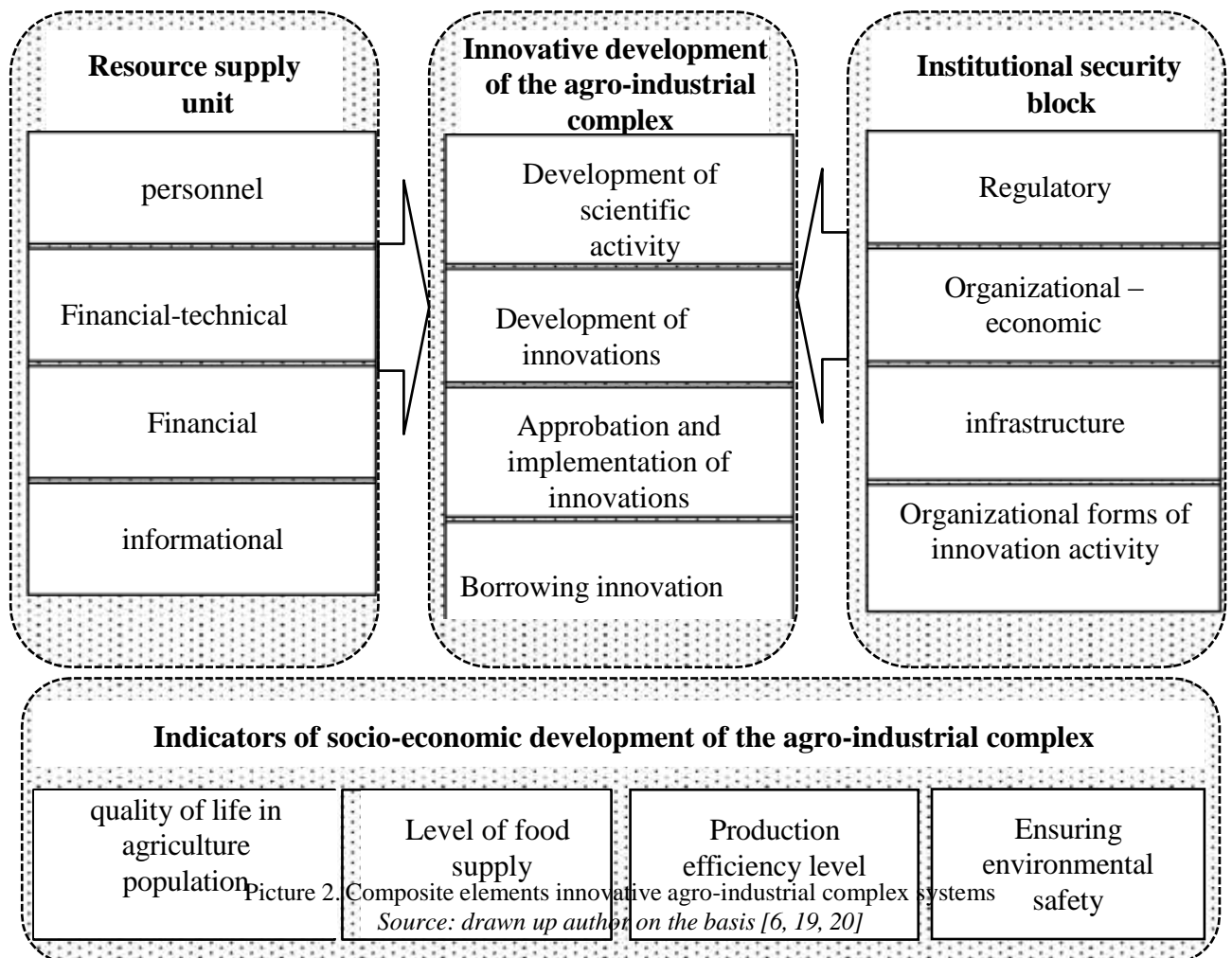
of individual elements of the innovation infrastructure. , extremely low innovative activity of economic entities producing and processing agricultural products [4, 13, 14, 45].

Many representatives of large agricultural businesses often, when forming an innovation policy, are inclined to a total rejection of their own research and development in odell of borrowing and using ready-made, primarily foreign, innovative products in their activities [5, 16, 17.18].

From a market point of view, the innovative development of the agricultural sector is one of the key strategic conditions for increasing competitiveness, and in the case of agricultural enterprises, a reliable strategy for

maintaining communication between the industry and the main high-tech innovation centers of the country. From a commercial point of view, innovative development allows for the maximum possible profit extraction in the current conditions, strengthening the image and reputation. For agricultural enterprises, all this is of great importance, since it attracts qualified personnel to the agricultural industry, and in general, improves the quality of working conditions, reducing the negative impact of difficult working conditions and factors of harmful production.

The innovative system of the agro-industrial complex should be ensured by the interaction of key blocks (Figure 2).



Innovative development of an agricultural enterprise is a set of measures, directed on the comprehensive improvement major funds and structures of the organization, with a focus on achieving maximum positive effect from implementation advanced contemporary technologies in production. The evaluation of the innovative development of such an enterprise is carried out in order to compare the results of these activities and the pre-innovative stage of the company’s development, which allows us to evaluate the effectiveness of innovations, in terms of determining the effectiveness of their increase in the main indicators of production in the agricultural sector, taking into account its specifics.

An important place in the innovative activity of an enterprise should be given to the management of innovation latency, in view of the fact that innovation latency is an important factor in the strategic competitiveness of an enterprise.

To a certain extent, the qualitative functioning of the regional innovation system is significantly affected by the parameters of the state and level of development of its innovation potential, which is characterized from various organizational, economic, scientific, technical, technological and other positions and points of view.

An enterprise that has or seeks to form and develop innovative potential is innovatively receptive, which quite



logically determines an important competitive advantage, as it opens up the possibility of timely protection of the enterprise from emerging external threats.

So, in the most general form, this is, first of all, the presence of appropriate conditions and factors for the permanent flow of innovative processes, the dynamics of the development of economic systems at various levels, the latent potential of the available economic resources of the subjects of innovative processes, etc.

In turn, narrowing the angle of view and concretizing the definition implies understanding a clear picture of the quality and quantity of production and economic resources that can be mobilized in innovative processes, the available arsenal of prepared and tested R&D, etc. [7, 21, 22, 23].

In the conditions of the state as a whole and its territorial entities, the economically justified exploitation of the innovative potential is quite an obvious prerequisite for their qualitative economic development.

Thus, at the mega level, a “global” innovation potential is being formed, uniting the innovation potentials of all member states of the global innovation economy. The macro level is the basis for the formation and development of the national characteristics of innovation potential. The regional, sectoral innovation potential and the potential of territorial research and production complexes are based on the meso-level, where formed relevant them properties and characteristics [24, 25, 26].

Due to a fairly wide range of managerial functions of the subjects of the innovation economy at the macro level, we consider it absolutely fair to say that it is the meso-level of the formation of innovative potential that is the central link in the implementation of the functions of high-

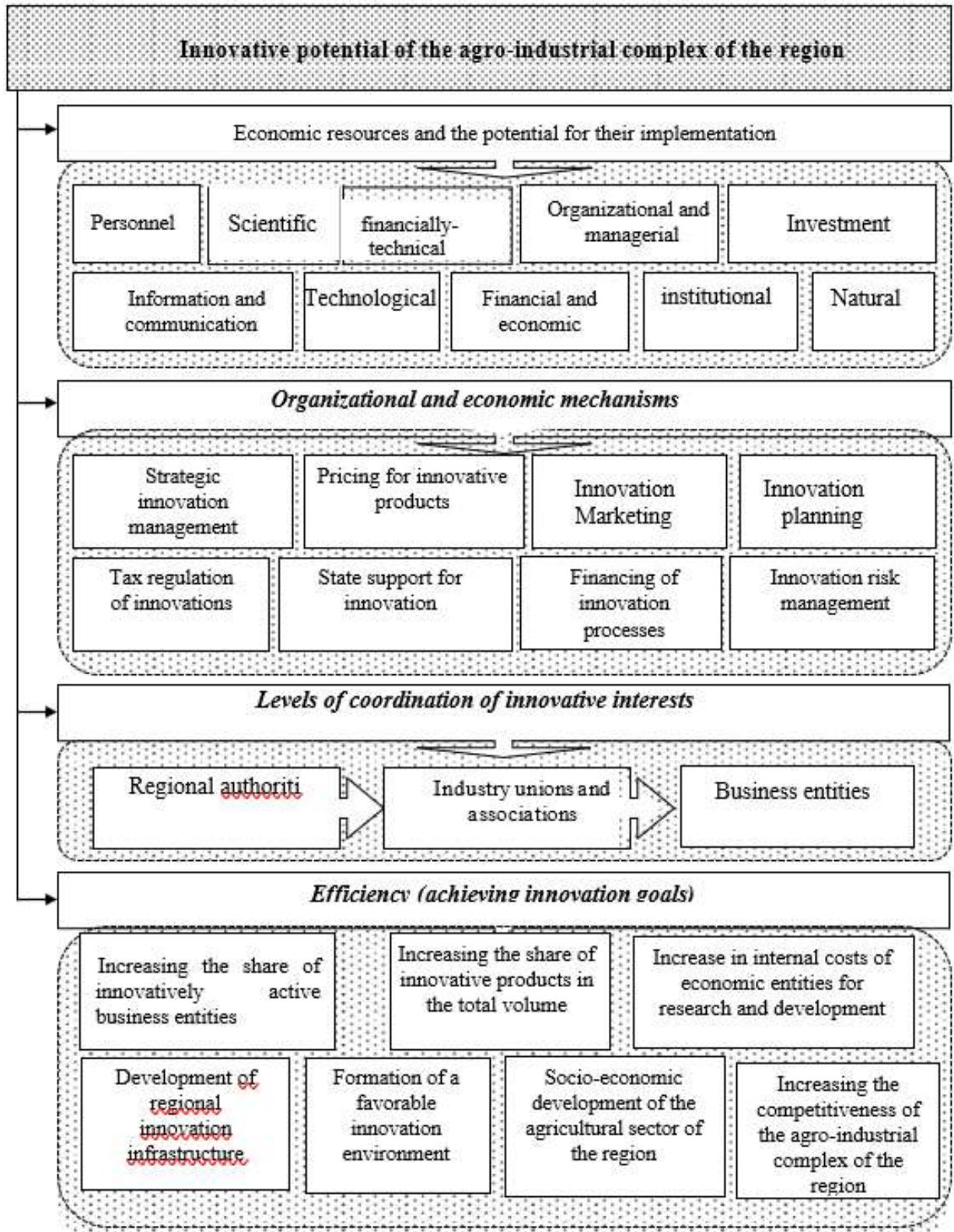
quality and effective management of it [27, 28, 29].

Along with mentioned It has place also micro level innovative potential. Here, in fact, search, development, testing, as well as the introduction of innovations are carried out. Institutional units are economic entities (organizations) involved in innovation processes. This level is the basis for the development, justification and testing of innovative projects and programs. Thus, here, in addition to the innovative potential of organizations, there is also the formation of the innovative potential of projects. And, finally, the “nano level” mediates the formation of the innovative potential of an individual participant in innovative activity [30, 31, 32].

The multidimensional nature of the economic category “innovation potential” not only leads to inconsistencies in the definition, but also complicates the process of assessing, interpreting the results obtained and developing economically sound recommendations for the formation, operation and growth of the innovative potential of economic systems [33, 34, 35].

Based on the study of extensive material related to the definition of the concept of “innovation potential” and the elements that form it, we offer consider this polysyllabic economic category as in some way a compilation of the theoretical and methodological approaches and, in the same time, taking in Attention regional level of the economic system and characteristic features of the agro-industrial production [36, 37, 38].

Innovative potential regional AIC necessarily should consider also level consistency and satisfaction innovative interests’ participants innovative process (picture 3).



Picture 3 – Content innovative capacity AIC region

Source: drawn up author

In our opinion, under the innovative potential of the agro – industrial complex of the region should understand, primarily, set of economic resources able be involved in regional innovative process and characterized relevant level quality, internal structure and reproductive potential, and organizational and economic

mechanisms them applications in regional agrarian sector, also _ complex innovative infrastructural units, providing uninterrupted implementation of innovative activities in the field of production and processing agricultural products in territorial borders region [39, 40].

Together with topics innovative potential regional AIC



should be defined with taking into account innovative characteristics functioning on the territory of economic entities and the degree of their interaction with each other and with higher organizations institutions and other structures, implementing managerial (control, regulating, consulting and etc.) functions, on about achievements innovative goals in agro-industrial complex and implementation innovative strategies region [41, 42]. Elements regional innovative capacity AIC we consider economic resources, including natural, labor (personnel), material and technical, investment, scientific, information and communication, technological, financial and economic, institutional and organizational and managerial.

CONCLUSION

The constituent structures are put into action through organizational and economic mechanisms, which include strategic management of innovations, marketing of innovations, financing of innovation processes, tax regulation of innovations, and others.

In addition, according to the author, the innovative potential of the agro-industrial complex of the region should be characterized by systemic interaction and subordination of the levels of coordination of innovative interests (in descending order: regional authorities – sectoral integrated formations – business entities).

At the same time, the innovation potential as a system is subject to performance requirements – the achievement of innovative goals. Indicators for achieving the goals can be: an increase in the share of innovatively active economic entities and innovative products in the total volume of manufactured products, the development of innovative infrastructure facilities, the creation of a odelling innovative environment in the region, the socio-economic development of the agricultural sector, the growth of the competitiveness of the agro-industrial complex of the region as a whole and economic entities, operating in the field of regional agro-industrial complex.

REFERENCES

1. Savina T.N. *Digital Economy as a New Development Paradigm: Challenges, Opportunities and Prospects* // *Finance and Credit*. 2018. No. 3 (771).
2. Panshin B. *Digital economy: features and development trends* // *Science and innovations*. – 2016. – T. 3. – No. 157.
3. Kurpayanidi K.I., Ashurov M.S. *Uzbekistonda tadbirkorlik muhitining zamonaviy holati va uni samarali rivozhlantirish muammolarini baholash/GlobeEdit Academic Publishing, European Union, 2019.*
4. Khodiyev B. Yu. *Uzbekistan: building a “digital economy”* // *Russian Foreign Economic Bulletin*. – 2017. – No. 12. – S. 5-12.
5. Tapscott Don. *Electronic-digital society: Pros and cons of the era of network intelligence* – Kyiv: ITN Press; 1999.
6. Mirziyoev Sh.M. *Message of the President of the Republic of Uzbekistan Shavkat Mirziyoyev to the Oliy Majlis / People’s Word, December 28, 2019*
7. *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*
8. Negroponte N. *Being Digital*. – New York: Knopf, 1995. – 243 p.
9. *Expert Group on Taxation of the Digital Economy / European Commission*. // *The European Union: [website]*. – 2014. – URL: <https://ec.europa.eu/> (date circulation: 10.09.2021).
10. *The Digital Economy* // *British Computer Society: [website]*. – 2013. – URL: https://policy.bcs.org/position_statements/digital-economy (date circulation: 10.09.2021).
11. *Addressing the Tax Challenges of the Digital Economy, Action 1 – 2015 Final Report / OECD/G20 Base Erosion and Profit Shifting Project*. – Paris: OECD Publishing. – 2015. – 290 p.
12. *What is Digital Economy?* // *Deloitte: [site]*. – 2019. – URL: <https://www.deloitte.com> (date circulation: 10.09.2021).
13. Skvortsov D. A. *Analysis of methods for assessing the level of digitalization of the economy / D. A. Skvortsov* // *Theory and practice of modern economics: coll. Articles of the International scientific-practical. Conf., May 15, 2020 – Penza, 2020*. – P. 164-170.
14. *Digitalization in agriculture* // *Federal Ministry of Food and Agriculture (Germany): [website]*. – URL: https://www.bmel.de/EN/Home/home_node.html (date circulation: 10.09.2021).
15. Frohn, C. (2018). *Germany’s Smart Farm: Digital Technology in Agriculture*. *Liberal Institute*. <http://4liberty.eu/odellin-smart-farm-digital-technology-in-agriculture>.
16. Prause, L. (2021). *DigitalAgriculture and Labor: A FewChallenges for Social Sustainability*. <https://www.researchgate.net>.
17. *UK Digital Strategy* // *GOV.UK: [website]*. – URL: <https://www.gov.uk/government/publications/uk-digital-strategy> (accessed 10.09.2021).
18. Medennikov V. I. *Complementary dependencies of science and business are a necessary condition for the success of the digitalization of the agrarian economy / V. I. Medennikov* // *Digital Economy*. – 2020. – No. 3. – P. 41-54.
19. *One Belt, One Road: The full text of Xi Jinping’s speech* // *INOSMI: [website]*. – URL: <https://inosmi.ru/20170519/239391693.html>
20. Huateng M. *China’s Digital Transformation. Experience in transforming the infrastructure of the national economy / M. Huateng, M. Zhaoli, Ya. Deli, V. Hualei*. – Moscow: *Intellectual Literature*, 2019. – 250 p.
21. *Godin V. V. Agriculture in the digital age: challenges and solutions / V. V. Godin, M. N. Belousova, V. A. Belousov, A. E. Terekhova* // *E-Management*. – 2020. – No. 3. – P. 4-15. – URL: <https://doi.org/10.26425/2658-3445-2020-1-4-15>
22. Goedde, L., Katz, J., Menard, A., Revellat, J. (2020). *Agriculture’s connected future: How technology can*



- yield new growth. McKinsey and company. <https://www.mckinsey.com>.
23. Departmental project "Digital agriculture ": official. Ed. / A. V. Gordeev, D. N. Patrushev, I. V. Lebedev [and others]; ed. S. N. Kosogor. – Moscow: FGBNU "Rosinformagrotech", 2019. – 48 p.
 24. Digital transformation of Russian agriculture: official. Ed. / A. V. Gordeev, S. N. Kosogor, O. A. Motorin [and others]; ed. O. A. Motorina. – Moscow: FGBNU "Rosinformagrotech", 2019. – 80 p.
 25. Durmanov, A., Kalinin, N., Stoyka, A., Yanishevskaya, K., & Shapovalova, I. (2020). Features of application of innovative development strategies in international enterprise. *International Journal of Entrepreneurship*, 24(1 Special Issue), 1–9.
 26. Tkachenko, S., Berezovskaya, L., Protas, O., Parashchenko, L., & Durmanov, A. (2019). Social partnership of services sector professionals in the entrepreneurship education. *Journal of Entrepreneurship Education*, 22(4).
 27. Durmanov, A. S., Tillaev, A. X., Ismayilova, S. S., Djamalova, X. S., & Murodov, S. M. ogli. (2019). Economic-mathematical modelling of optimal level costs in the greenhouse vegetables in Uzbekistan. *Espacios*, 40(10).
 28. Shulga, O., Nechyporuk, L., Slatvitskaya, I., Khasanov, B., & Bakhova, A. (2021). Methodological aspects of crisis management in entrepreneurial activities. *Academy of Entrepreneurship Journal*, 27(Special Issue 4), 1–7.
 29. 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\(40\)](https://doi.org/10.9770/jesi.2019.7.2(40))
 30. Omelyanenko, V., Khasanov, B., Kolomiets, 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.
 31. 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).
 32. Hilorme, T., Tkach, K., Dorenskiy, 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.
 33. 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.
 34. 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](https://doi.org/10.14505/jemt.v12.2(50).03)
 35. 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.
 36. Nurimbetov, T., Umarov, S., Khafizova, Z., Bayjanov, S., Nazarbaev, O., Mirkurbanova, R., & Durmanov, A. (2021). Optimization of the main parameters 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>
 37. 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>
 38. Durmanov, A., Li, M., Khafizov, O., Maksimkhanova, 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>
 39. Durmanov, A., Tulaboev, A., Li, M., Maksimkhanova, 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>
 40. Atakhanova, N. E., Almurodova, 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>
 41. 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.
 42. Shamborovskiy, 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.