Journal DOI: 10.36713/epra1013|SJIF Impact Factor (2021): 7.473 ISSN: 2347-4378
EPRA International Journal of Economics, Business and Management Studies (EBMS)
Volume: 9 | Issue: 8| August 2022 -Peer-reviewed Journal

TRANSFORMATION OF THE HUMAN CAPITAL MANAGEMENT SYSTEM OF INNOVATIVE HIGH-TECH ENTERPRISES IN THE DIGITAL ECONOMY

Irmatova Aziza Bakhramovna[1], Minavarov Mardon Muzafar o'g'li[2]

[1]*ScD, Associate Professor Head of the Department of Human Resource Management, Tashkent State University of Economics, Uzbekistan*

[2]*Master's Degree in Human Resources Management, Tashkent State University of Economics, Uzbekistan*

ABSTRACT

The purpose of the study is to develop scientific, methodological and practical recommendations for the development of human capital management mechanisms for high-tech industrial enterprises in the digital economy, contributing to the rationalization of staff employment, creating favorable conditions for their innovative development and providing growth economic efficiency of economic activity of industrial enterprises. The object of the study is the human capital management system high-tech industrial enterprises, introducing digital technologies, focused on their innovative development. The subject of the study is the system of organizational and economic relations arising in process human capital management of high-tech enterprises implementing digital technologies, in the interests of their innovative development.

KEYWORDS: ***Digital HR tools, digital technology, personnel management***

1. INTRODUCTION

At conditions formation digital economy, the importance of knowledge and information to ensure efficiency is sharply increasing economic activities innovative active high-tech industrial enterprises. Human capital acquires new properties, functions, competencies and acts as one of the main factors providing innovative development enterprises in conditions their digital transformation. In the context of the introduction of digital technologies at high-tech industrial enterprises of Uzbekistan, there is a shortage qualified personnel, what is business threat for prospects for their growth and development. In the near future, high-tech enterprises will be required new specialists, able work in areas robotics, artificial intelligence, machine learning, 3D technologies and nanotechnology, cybersecurity, data protection, and will also require qualified top managers, which will be able realize business development on the base new technologies. At this they must will have knowledge at the intersection of these areas. This will require changes and transformation of the existing system of human capital management in high-tech industrial enterprises.

One of the main components of the human capital management system is the subsystem of personnel training for high-tech industrial enterprises. The relevance of the topic of the researched work is due to: 1) the high importance and economic need for carrying out activities to develop the existing system of human capital management of high-tech industrial enterprises in the context of the digitalization of the economy; 2) the need to develop mechanisms for managing the human capital of enterprises in their innovative development and the introduction of digital technologies; 3) the existing need for methods for assessing human capital in the new economic conditions, as well as the need for methods for assessing the economic efficiency of investments in the development of the system management human high-tech capital and innovative industrial enterprises.

2. MATERIALS AND METHOD

The purpose of the study is to develop scientific, methodological and practical recommendations for the development of human capital management mechanisms for high-tech industrial enterprises in the digital economy, contributing to the rationalization of staff employment, creating favorable conditions for their innovative development and providing growth economic efficiency of economic activity of industrial enterprises. For achievements this goals necessary decide **main tasks**: identify requirements to staff high-tech enterprises and identify transformation trends systems management human capital of enterprises in the digital economy; to

Journal DOI: 10.36713/epra1013|SJIF Impact Factor (2021): 7.473 ISSN: 2347-4378
EPRA International Journal of Economics, Business and Management Studies (EBMS)
Volume: 9 | Issue: 8| August 2022 -Peer-reviewed Journal

develop a new organizational and economic mechanism for managing the human capital of innovative high-tech enterprises operating in conditions digital economy; propose a new model for assessing the readiness of the human capital management system of high-tech enterprises for the introduction of digital technologies; identify the features of the use of human capital of enterprises in the face of growing uncertainty and risks; suggest algorithm for estimates level development human capital of a high-tech enterprise implementing digital technologies ; develop methodology estimates economic efficiency investments in the development of human capital in the digital economy.

3. RESULTS AND DISCUSSION

In the digital economy, a transformation of human capital management occurs and new management principles are used, based on the transition from hierarchical management to network structures, decentralization, hierarchy reduction and the introduction of self-government, self-organization. High-tech industrial enterprises form their basic departments, competence centers, business incubators on the basis of universities. Mobility personnel industrial enterprises, located at a distance from the main centers of learning, increases through the use of distance learning . Released during the implementation of digital technologies staff are sent to retraining to work in new jobs shaped by new opportunities for digital transformation. New forms of employment associated with remote work are emerging (Figure 1).

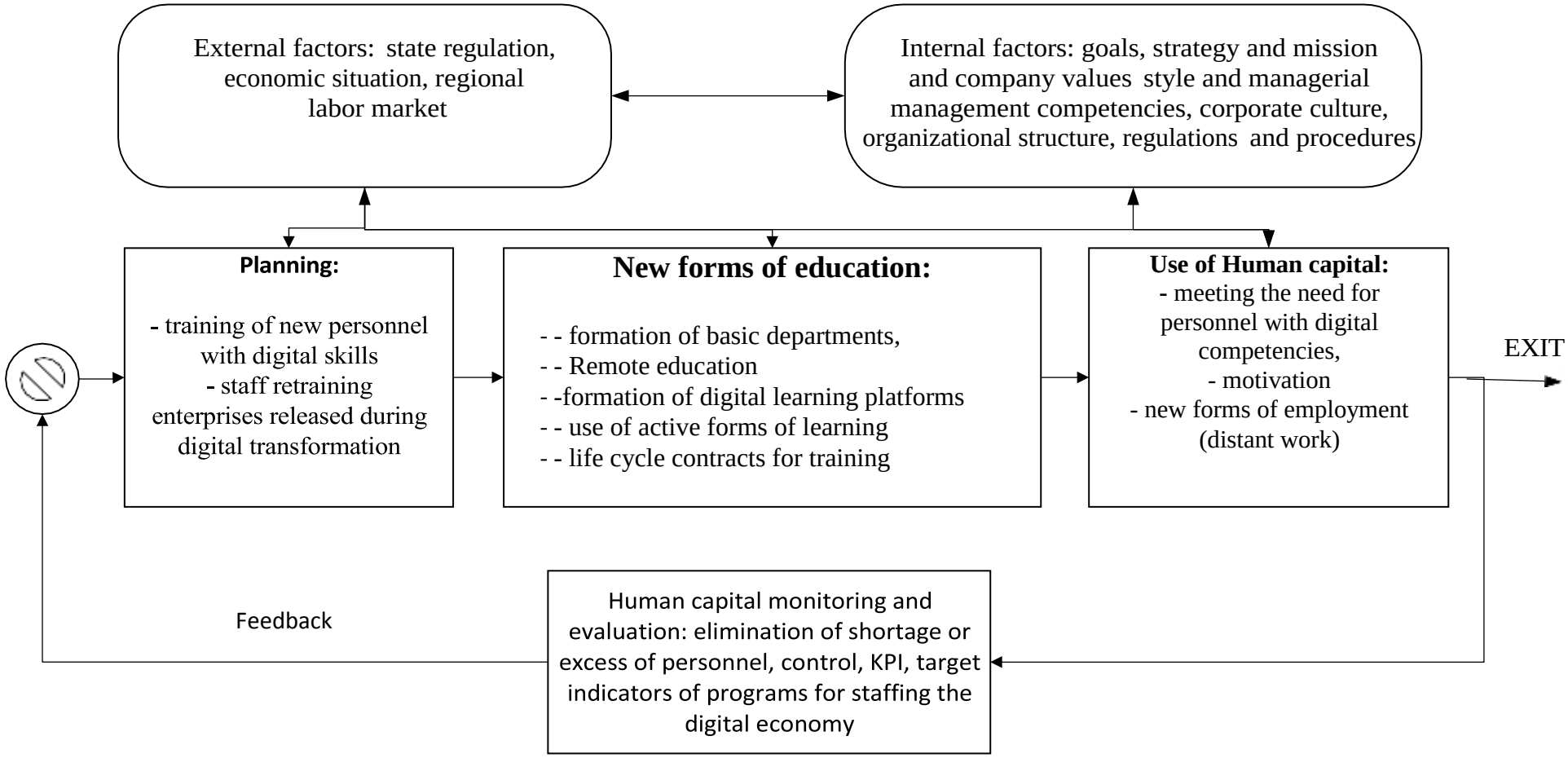
The most important direction for improving the system for the formation and use of human capital is the growth of the efficiency of educational institutions, the change in the forms of educational activity, and the expansion of the use of active and interactive forms of learning. At the same time, the formation of a neural network formation based on neurocognitive mechanisms for the assimilation of new knowledge takes place. on the digital economy, as well as the widespread use of brain-computer interfaces, artificial intelligence, virtual and augmented reality in the distance learning segment. New requirements of the digital economy are being formed for the training of employees throughout their lives, as this is required by constant cardinal changes in the skills of employees. At the same time, massive open online courses, innovative models of additional education, and blended learning are widely used.

Thus, the novelty of the results obtained by the author lies in the fact that new trends of ongoing changes in the human capital management system of high-tech industrial systems have been identified enterprises that are focused on forecasting and the formation of competencies in accordance With requirements digital economy and improving the education system by opening basic departments of enterprises, centers competencies, using the capabilities of mega-universities, updating educational programs in the specialties of the digital economy and wide use remote information and communication educational technologies.

Main object element management of innovative development is an industrial enterprise operating in the conditions of the formation of a digital economy and introducing digital technologies.

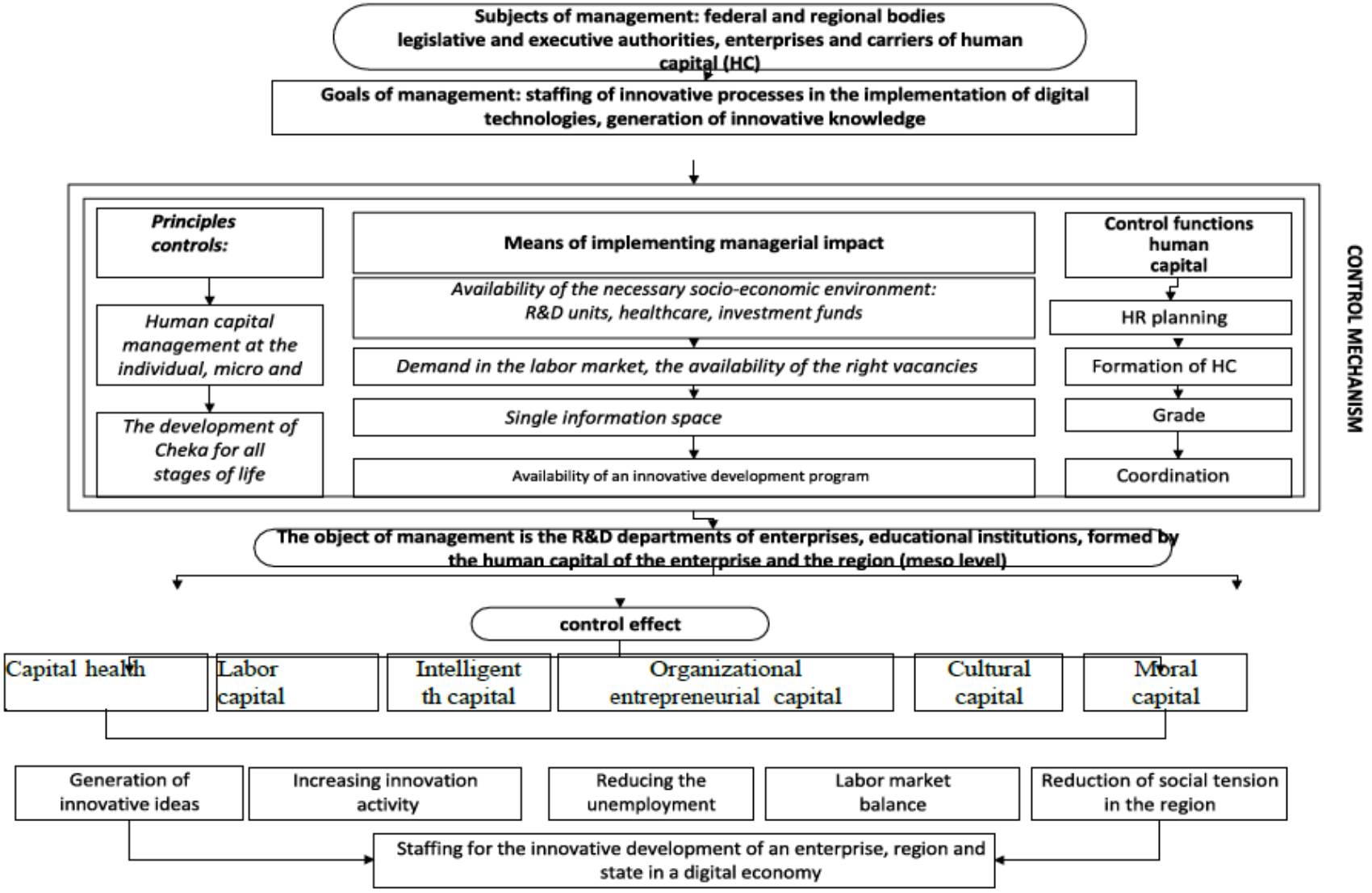
However, full implementation capacity enterprises hinder inefficient control development of human capital. Figure 2 schematically shows the proposed author organizational and economic mechanism management human capital in the interests of innovative development in the digital economy. Thus, the novelty of the proposed mechanism lies in the fact that it differs in its impact on human capital at three levels of management (individual, enterprise level and region (state) level), an also management human capital on the all-stages life cycle of a person, which makes it possible to develop managerial decisions and implement on an object systems management human capital, ensuring the formation of human capital competencies necessary for the digital economy. Given the direct impact of human capital on performance implementation digital technologies industrial enterprises, the author proposes to identify the stages of readiness of enterprises for the introduction of digital technologies in dependencies from quality characteristics human capital (at the same time, we believe that the more perfect the human capital management system, the better prepared the staff for the introduction of digital technologies).

Journal DOI: 10.36713/epra1013|SJIF Impact Factor (2021): 7.473 ISSN: 2347-4378
EPRA International Journal of Economics, Business and Management Studies (EBMS)
Volume: 9 | Issue: 8| August 2022 -Peer-reviewed Journal



Picture 1. New system management human capital in conditions digital transformation high - tech industrial enterprises (developed by the author)

Journal DOI: 10.36713/epra1013|SJIF Impact Factor (2021): 7.473 ISSN: 2347-4378
EPRA International Journal of Economics, Business and Management Studies (EBMS)
Volume: 9 | Issue: 8| August 2022 -Peer-reviewed Journal

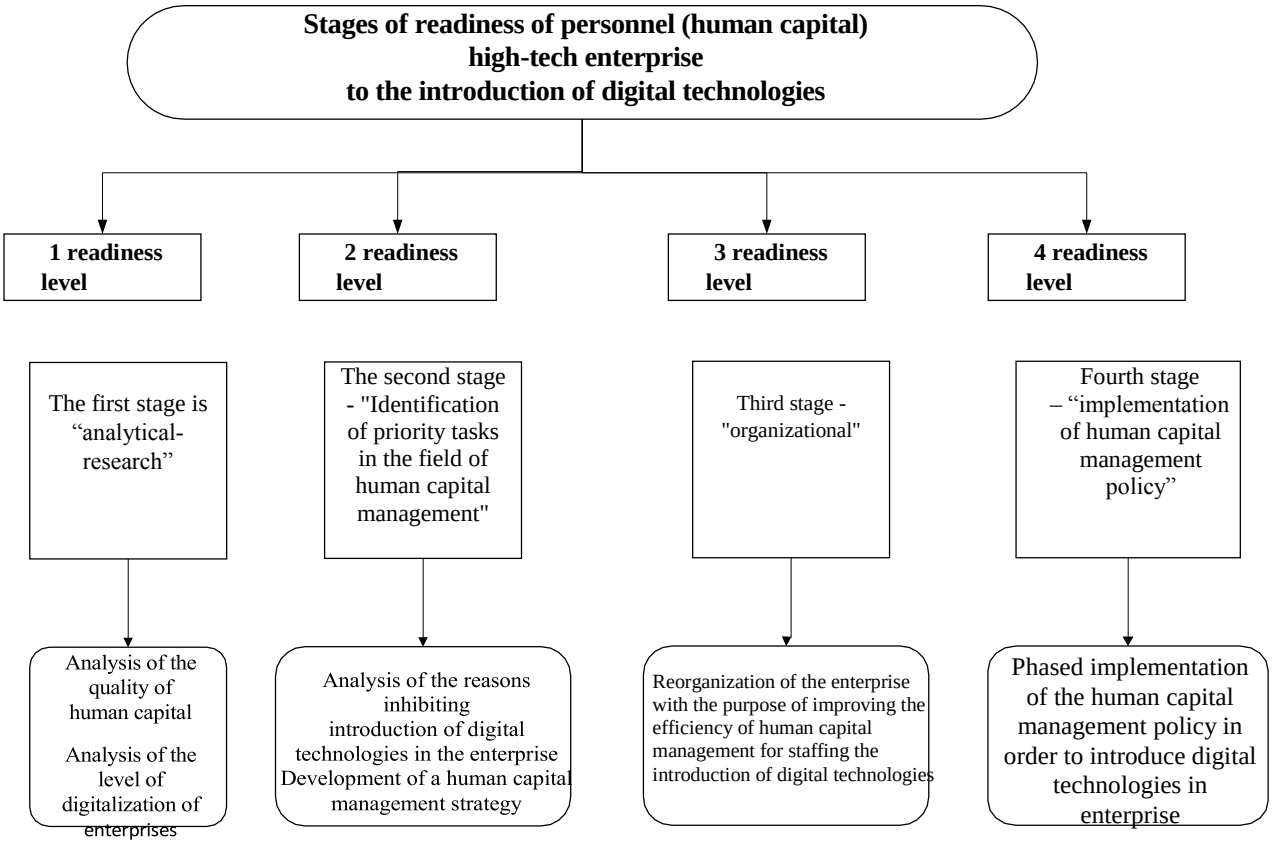


Picture 2 - Organizational and economic mechanism systems management human capital (developed author)

Journal DOI: 10.36713/epra1013|SJIF Impact Factor (2021): 7.473 ISSN: 2347-4378
EPRA International Journal of Economics, Business and Management Studies (EBMS)
Volume: 9 | Issue: 8| August 2022 -Peer-reviewed Journal

In order to determine the degree of readiness of enterprises for the introduction of digital technologies, it is necessary to consider 4 stages of management human capital industrial enterprises (picture 3).

Novelty proposed models is in volume, what model includes, in ascending order, four levels of readiness, characterized by the analytical and research stage of development of the human resources management system capital, stage identifying priority tasks in sphere management of human capital, the stage of organization and the stage of adaptation of individual activities, according to which the level of readiness of the human capital management system and enterprise personnel for the introduction of digital technologies is assessed.



Picture 3 - Stages Readiness Enterprises to Implementation Digital Technologies (developed by the author)

The use of new digital technologies in the face of growing uncertainty and risks may seem more effective than the use of human capital for solutions production tasks. it due to the peculiarities of the psyche of individuals who form human capital, which, under conditions of uncertainty, reduce the effectiveness of their work, make mistakes and marriage.

4. CONCLUSION

The novelty of the efficiency assessment lies in the fact that it is carried out for an individual, for an enterprise and for the state as a whole according to the models for calculating economic efficiency chosen by the author, which makes it possible to increase its accuracy.

REFERENCES

1. *Mirkhayotov MM (2019) Criminalization in Commercial Banks assessment of the effectiveness of the system for combating money laundering and terrorist financing. Finance and Banking, 5, pp. 28-36. www.journal.bfa.uz*
2. *Afanasieva, O., Volska, O., Khasanov, B., Yemtsev, V., & Matveeva, V. (2020). Strategic management mechanism of innovative development of industrial companies. Academy of Strategic Management Journal, 19(4), 1–7.*
3. *Vovchak, O. D., Kantsir, V. S., & Kantsir, I. A. (2019). FINANCIAL MONITORING AS ECONOMIC AND LEGAL METHOD AGAINST TERORISM. Financial and Credit Activity Problems of Theory and Practice, 2(29), 339–347. https://doi.org/10.18371/fcaptp.v2i29.171887*

4. *Choo, K. K. R. (2015). Cryptocurrency and Virtual Currency: Corruption and Money Laundering/Terrorism Financing Risks? In Handbook of Digital Currency: Bitcoin, Innovation, Financial Instruments, and Big Data (pp. 283–307). Elsevier Inc. https://doi.org/10.1016/B978-0-12-802117-0.00015-1*
5. *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.*
6. *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).*
7. *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).*
8. *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.*
9. *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)*
10. *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.*
11. *Lee, C.-W., & Huruta, A. D. (2020). Empirical Study on Monetary Policy Shock Using Structural Vector Autoregression: Case of Indonesia. Review of Integrative Business and Economics Research, 10(2), 69–87.*
12. *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.*
13. *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.*
14. *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*
15. *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.*
16. *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*
17. *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*
18. *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*
19. *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*
20. *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*
21. *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.*
22. *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.*
23. *Durmanov A. et al. (2022) Current state of agriculture in the republic of Uzbekistan and the need for improving the efficiency of agro-clusters in the fruit and vegetable industry. IOP Conf. Ser.: Earth Environ. Sci. 1043 012043*
24. *Durmanov A. et al. (2022) Game theory and its application in food security: research of the greenhouse facilities of the republic of Uzbekistan. IOP Conf. Ser.: Earth Environ. Sci. 1043 012022*
25. *Durmanov A. et al. (2022) Multi-level diagnostics of agrarian economy subjects according to the degree of readiness for digital transformations. IOP Conf. Ser.: Earth Environ. Sci. 1043 012006*
26. *Ravshan Nurimbetov et al 2022 IOP Conf. Ser.: Earth Environ. Sci. 1043 012006*
27. *Rashid Khakimov et al 2022 IOP Conf. Ser.: Earth Environ. Sci. 1043 012043*
28. *Khamdamova, G. A. (2008, June). Use of the automated information technologies in marketing management. In ICEIC: International Conference on Electronics, Informations and Communications (pp. 954-956).*
29. *Khamdamova, G. A. (2010, October). Development of information systems of management by business in companies. In 2010 4th International Conference on Application of Information and Communication Technologies (pp. 1-3). IEEE*
30. *Khamdamova, G. (2021). Ways to Improve the Activities of Innovative Entrepreneurship in the Republic of Uzbekistan. Bulletin of Science and Practice, 7(3), 218-227. (in Russian). https://doi.org/10.33619/2414-2948/64/23*