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DIGITALIZATION OF INDUSTRY AS A DRIVER OF TECHNOLOGICAL DEVELOPMENT OF THE NATIONAL ECONOMY OF UZBEKISTAN

Abstract: *The current global transition to a new phase of development under the influence of the Fourth Industrial Revolution is characterized by the emergence of end-to-end technologies, an increase in the speed of introduction of new developments, a reduction in the life cycle of products, the emergence of new players, and the strengthening of digital transformation trends. In the modern economy, the digitalization of industry plays a significant role in the technological development of spatial and sectoral structures, therefore, the production of high-tech products by industry based on innovative digital technologies is of key importance for the development of the economy. In this paper, the importance of digital technologies for the industrial sector was investigated.*

Key words: *Industry 4.0, Digital Uzbekistan-2030, state programs, industrial development, technological structure, digital economy, digital technologies.*

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Introduction

JEL: O31, O33, O32

The beginning of the XXI century is due to the active introduction of digitalization processes into the modern economy on the basis of the information and industrial revolution, as well as the processes of economic globalization. Currently, the introduction of globally competitive digital technologies into the economy continues, including advanced manufacturing, information, telecommunications, as well as artificial intelligence systems, virtual reality, the Internet of Things and, accordingly, the transformation of the economy into a digital format or, in other words, the formation of a digital economy. In industry, digitalization is based on the Concept of "Industry 4.0", which provides for the end-to-end digitalization of all processes and their integration into an intelligent technology platform. Digitalization tasks have firmly entered the strategic directions of Uzbekistan's development and have acquired additional relevance in connection with the launch of the state program "Digital Uzbekistan-2030"[1], which determines the vector of long-term scientific, technological and economic development of the country. This underlines the undoubted relevance and practical significance of the issues of digital transformation, substantiation and formation of the image of digital systems and the development of the infrastructure of the digital economy.

Thus, an exceptional opportunity to ensure competitiveness and positive development of the national economy is its transformation according to an innovative scenario, taking into account the development of information and communication technologies in the direction of digitalization. At the

[1] Hamdamova, F. (2020). Strategija «Cifrovoj Uzbekistan-2030»: predposylki dlja prinjatija, osnovnye polozhenija, mehanizmy i perspektivy realizacii. Obshhestvo i innovacii, 1(2/S), 131-143.

same time, if the principles of this transformation (as a scientific basis) are common to all industrial countries, then a set of approaches and methods for the formation of a national digital economy should have its own specifics, since simply copying models implemented in other states is likely to not bring the desired results due to the differentiation of the stages of development of the industrial sector[2].

The digital economy, operating on information technology platforms, is developing at an intensive rate, which necessitates the creation of new models of such platforms. Also, the current acts regulating the transition to the digital economy are: Resolutions of the President of the Republic of Uzbekistan "On measures to develop the digital economy in the Republic of Uzbekistan", "On measures to organize the activities of crypto exchanges", "On the formation of the Digital Economy Development Support Fund "Digital Trust", "On measures to further modernize the digital infrastructure for the development of the digital economy".

A significant step in the transition to the digital economy was the introduction of digital technologies and platform solutions in the areas of public administration and the provision of public services, including in the interests of the population and small and medium-sized businesses, including individual entrepreneurs.

During the COVID-19 pandemic, information and communication technologies played a vital role in ensuring the health and safety of the population and in supporting the economy and society. Governments of all countries exchanged information through their national portals, mobile applications and social media platforms. The UN member states of 193 countries have shown a high level of transparency in the exchange of information and demonstrated excellent flexibility in the development of specialized COVID-19 portals and state-supported applications to provide constantly updated information and resources.

E-government (my.gov.uz), providing information exchange, provided online services during the outbreak of the pandemic. Digital technologies have also enabled State governments to quickly make policy decisions based on real-time data and analytics to empower local governments. E-Government Development Index The UN reflects how a country uses information technology to ensure access and integration of its citizens. In 2020, the indicators for Uzbekistan are almost equal to the average indicators for the CIS and exceed the global average. Uzbekistan ranks 87th among 193 countries in the ranking.

Currently, the digitalization of industry is evidenced by the use of new types of equipment, which include: robotic devices, waste-free and unpopulated technologies, flexible processing complexes, automatic production machines, unmanned vehicles, automated technical and technological platforms of various stages of the production process, equipped with digital sensors, sensors, etc. Computer and information systems, digital and network technologies, due to the high quality, speed and reliability of transmission, storage and processing of digital signals and other properties, ensure timely decisions aimed at increasing labor productivity, competitiveness, innovation development and their implementation in production processes.

In this regard, the authors of the article assume that the digitalization of industry will develop at an accelerated pace and the main branches of the industrial complex will act not only as locomotives of technological development of the spatial and sectoral structure of the regions, but also as the foundation for the formation of the digital economy of Russia. Therefore, the authors set out to analyze the practice of introduction and application of digital technologies by industrial enterprises, as well as to investigate the properties of such technologies that affect the growth of competitive advantages of industrial enterprises in the region and the technological development of its spatial and sectoral structure.

It is generally believed that the digitalization of industry, which has received the names "Industry 4.0" and "The Fourth Industrial Revolution" in foreign and domestic scientific literature, is firmly connected with the concept of industrial development.

The beginning of the digitalization of industry within the framework of Industry 4.0 was initiated by three previous industrial revolutions:

- the first replaced physical force with the energy of steam and water engines, created machine tools, mechanical devices, transport and metallurgy;
- the second carried out the electrification and introduction of conveyor production, the development of the oil and chemical industries, rail transport and communications (telegraph and telephone);
- the third introduced automated technologies, ensured the development of electronics and robotics, the use of information and communication technologies (ICT) and software in production processes.

The Fourth Industrial Revolution and Industry 4.0 are used today as synonyms, based on which information and digital technologies are actively and widely used, both in production processes and in management.

The information and telecommunication technologies industry is being gradually created in Uzbekistan. In particular, the implementation of over 220 priority projects has begun, providing for the

[2] Kvasha, N. V., Demidenko, D. S., & Voroshin, E. A. (2017). Transformacija modeli industrial'nogo razvitija v uslovijah cifrovizacii jekonomiki. In Tendencii razvitija jekonomiki i promyshlennosti v uslovijah cifrovizacii (pp. 93-116).

improvement of the e-government system, the further development of the domestic market of software products and information technologies, the organization of IT parks in all regions of the republic, and the provision of qualified personnel in this area[3].

In addition, a comprehensive program "Digital Tashkent" is being implemented, which provides for the launch of a geoportal integrated with more than 40 information systems, the creation of an information system for managing public transport and communal infrastructure, the digitalization of the social sphere with the subsequent dissemination of this experience to other regions.

The theoretical provisions of digitalization of industry are based on the theory of information society and its relationship with key aspects of the theory of virtual economy and network economy. To study the effectiveness of digitalization of industry, it is necessary to study the possibilities of obtaining financial benefits and competitive advantages by industrial enterprises from the use of information and telecommunication technologies, as well as the formation of a technological basis for the development of the economic and social sphere of the region.

In modern literature, there are several approaches and classifications, numerous and diverse in purpose and purpose of application of telecommunications and information technologies, aimed at effective digitalization of industry to increase competitiveness and ensure technological development of spatial and sectoral structures of regions, as well as the formation of a digital economy in Uzbekistan. In our opinion, the digitalization of the economy is as inevitable a process as the industrial revolution of the XX century and the economic changes of tectonic scale associated with it. Yes, she brought a lot of new benefits to life, made available things that were previously written about in fiction. Along with this, the pace of life has changed, and this change has broken those who have not been able to adapt to these processes.

Let's consider the processes of digitalization on the example of the sectors of the economy of Uzbekistan. In our opinion, the digitalization of industry should be studied in inseparable connection with the prospects for the development of the digital economy in the republic, the very concept of which has steadily entered scientific circulation. Quite a large number of foreign and domestic scientific papers are devoted to the issues of determining the essential characteristics of the concept of "digital economy". At the same time, the dominant is the assertion of the digital economy as an economy of a new technological order, which is based on digital technologies (D. Tapscott, L. Kargina, E. Ustyuzhanina, K. Kurpayanidi, E.Muminova etc.)

It should be noted the importance for our research of the interpretation of the digital economy formulated in the program "Digital Uzbekistan 2030", which proceeds from the fact that the digital economy is an economic activity in which the key factor of production is data in digital form, which contributes to the formation of an information space taking into account the needs of citizens and society in obtaining high-quality and reliable information, the development of the information structure of the country, the formation of a new technological basis for the social and economic sphere.

The objectives of the state program "Digital Uzbekistan-2030" "Digital Economy" are: to increase the share in GDP of the costs of digitalization of the economy of Uzbekistan;

- creation of a high-tech infrastructure for data transmission, storage and processing that will be accessible to all users;
- the use of mainly domestic software by government agencies.

The tasks outlined in the framework of the implementation of these goals of the state program "Digital Uzbekistan-2030" sound something like this:

- creation of a system of legal regulation of the digital economy;
- creation and promotion of domestic developments in the field of transmission, storage and processing of large data arrays (industrial Internet, quantum computing, cloud storage technologies), as well as their security;
- ensuring the training of highly qualified personnel for the digital economy;
- creation and promotion of domestic developments in the field of end-to-end technologies (artificial intelligence, big data, blockchain);
- introduction of digital technologies and platform solutions in the field of public services;
- Creation of a financing system for the state program "Digital Uzbekistan-2030".

Based on the analysis of the provisions of the state program "Digital Uzbekistan -2030" and data on the state of industry, we have identified the stages of digitalization of industry in the spatial and sectoral structure of the region, which are presented in Table 1.

In addition to the stages of digitalization of industries, it should also be said about the use of information and communication technologies, which form the technological basis for the digitalization of production processes and the formation of the innovation space of the region. All the variety of digital technologies used in the industry, according to the authors, can be divided into two main groups: universally end-to-end and especially functional technologies.

[3] https://lex.uz/ru/docs/5031048

Table 1. Stages of digitalization of industry

Stage name	Stage Characteristics
I. Production of digital devices, electronic components, information and telecommunication technologies	Formation of a large-scale market of electronic optical equipment and components
II. Organization of network electronic information exchange.	The use of specialized electronic and technical means for data exchange through global information networks, including the Internet
III. Application of innovative special software	Implementation of the transition to the creation of a new product through the introduction of digital technologies and software and hardware complexes
IV. Computerization of industries	Introduction of electronic computers into management and production business processes
V. Industrial production of electronic robotics	The use of digital systems for the processes of transmission and distribution of information flows in digital form
VI. Introduction of digital management models	Organization of planning and production processes according to the interactive model "market demand - production capacity - manufactured goods".
VII. Formation of cyber-physical systems of industrial production	Artificial intellectualization for tracking production processes using virtual copies of the physical world and making independent production decisions

The active implementation of the program of digitalization of the industrial sector of the economy of Uzbekistan is quite a difficult task.

The first real problem of the digital economy is the criticality of access to digital technologies. Currently, Uzbekistan, unfortunately, practically lacks its own advanced developments in the field of digitalization. Today's world of digital technologies has a pronounced binary structure - the USA and China.

According to the resource **"Forex Indicators you can Rely on"**[4] As of November 1, 2021, of the 10 largest technology companies by market capitalization – 6 American, 2 Chinese, 1 Saudi Arabia, 1 Thailand.

Almost all critical digital technologies are controlled by American corporations, which use their monopoly position to solve commercial and political goals. Facebook Instagram Facebook, WhatsApp messenger, Intel, Qualcomm, Broadcom and Xilinx (production of processors, chips, Wi–Fi modems), the American technology giants announced as part of the US-China trade war, can serve as an example of this. Another example of the US using its monopoly position in technology and finance is the introduction of anti-Iranian sanctions.

Thus, the lack of access to technologies that are critical for digitalization can significantly complicate and somewhat delay the implementation of the goals of the national project "Digital Uzbekistan -2030".

The next problem of digitalization development in the country is the availability of an effectively functioning digital infrastructure in industry and households. Such infrastructure should be understood as widespread access to high-speed industrial Internet (5G) technology, equipment of industrial processes with sensors for reading and processing data, creation of computing power for predictive analytics.

The real goals of digitalization of the domestic industry indicate the long-term nature of this program and the possibility of its real launch only within the framework of some experimental centers or IT parks.

In addition to the technical problem of forming the necessary infrastructure, the formation of the necessary regulatory framework is a serious practical problem of implementing the digitalization of industry project. There is currently a significant lag in this direction.

Also, the problem of implementing the digitalization program of industry today is the difficulty of attracting both large private investors and small and private businesses to projects, which are an important element of the commercialization of fundamental developments carried out mainly with the participation of the state. The deterrent factor for attracting large private investors is not the elaboration and transparency of business conditions. It is worth noting that active work is planned in this direction, including the development of such tools as the "regulatory guillotine", special investment contracts, a digital platform for business appeals, etc.

Another problem of digitalization of the economy, which I would like to highlight, is the issue of searching for signs of a "bubble" or "hype" in a

[4] Most Valuable Companies in the World – 2021. https://fxssi.com/top-10-most-valuable-companies-in-the-world

number of critical digital technologies. The problem of systematic bubble formation in high-tech sectors is urgent. Not so long ago, the world observed a rapidly inflated and also rapidly collapsed "bubble" in the cryptocurrency market, before that, e-commerce technologies were overestimated in a certain way.

The need for digitalization of industry is an important component of the sustainable and breakthrough development of the economy of Uzbekistan. The strategy of implementation of the state program "Digital Uzbekistan-2030", planned within the framework of achieving national goals, faced a number of problems, among which it is necessary to highlight first of all:

- monopolization of critical digital technologies in the hands of monopolistic countries that use access to them as a lever of political and competitive influence;
- the underdevelopment of the digital infrastructure in Uzbekistan, the need for significant time, scientific and monetary resources to bring it in line with the goals set;
- lack of elaboration of the regulatory framework of the digital economy;
- bureaucratic obstacles to the rapid transformation of the economy;
- difficulties with attracting private participants of the state program "Digital Uzbekistan";
- the probability of overestimation of some of the critical technologies of the digital economy due to the high public response around digitalization.

The search for balanced answers to the above questions will increase the likelihood of a successful transition of domestic industry to new technologies.

To activate the digital modification of Uzbekistan's industry, measures that promote specific enterprises or projects, instructive coercion of enterprises is not enough. Systemic actions are needed to ensure the use of up-to-date digital technologies: the formation of a favorable business climate, tax incentives to increase the efficiency of technological modernization and high-quality corporate governance, increasing investments in the growth of personnel competencies.

References:

1. Abdukarimovna, M. E. (2020). The effectiveness of the use of blockchain technologies in sectors of the national economy. *South Asian Journal of Marketing & Management Research,10*(6),53-62.
2. Abdullaev, A. (2021). The major directions of the investigation of the entrepreneur's personality and actions in psychology. *Bulletin of science and practice*, №6, https://cyberleninka.ru/article/n/the-major-directions-of-the-investigation-of-the-entrepreneur-s-personality-and-actions-in-psychology
3. Abdullaev, A., & Mukhsinova, Sh. (2021). Analysis of macroeconomic policy of the Republic of Uzbekistan. *OII*. 2021. №6/S. https://cyberleninka.ru/article/n/analiz-makroekonomicheskoy-politiki-respubliki-uzbekistan
4. Abdullaev, A., et al. (2021). Covid-19 pandemic in central Asia: policy and environmental implications and responses for SMES support in Uzbekistan. In *E3S Web of Conferences* (Vol. 258, p. 05027). EDP Sciences.
5. Abdullaev, A. M. (2019). Actual issues of activization of financial factors of development of entrepreneurship in Uzbekistan. M. Abdullaev, K. I. Kurpayanidi, I. Sh. U. Tolibov. *Kazakhstan Science Journal*, Vol. 2, No 3(4), pp. 49-58.
6. Abdullaev, A. M., Nabieva, N. M., Muminova, E. A., & Honkeldieva, G. S. (2020). Economic and Social Policies During Covid-19 Period: Relief Plan of Uzbekistan. *International Journal of Advanced Science and Technology*, *29*(06), 5910.
7. Alaloul, W. S., Liew, M. S., Zawawi, N. A. W. A., & Mohammed, B. S. (2018). Industry revolution IR 4.0: future opportunities and challenges in construction industry. In *MATEC web of conferences* (Vol. 203, p. 02010). EDP Sciences.
8. (2021). *Covid-19 pandemic in central Asia: policy and environmental implications and responses for SMES support in Uzbekistan Konstantin Kurpayanidi and Alisher Abdullaev* Published online: 20 May 2021. https://doi.org/10.1051/e3sconf/202125805027
9. Gubán, M., & Kovács, G. (2017). INDUSTRY 4.0 CONCEPTION. *Acta Technica Corviniensis-Bulletin of Engineering*, *10*(1).
10. Hamdamova, F. (2020). Strategija «Cifrovoj Uzbekistan-2030»: predposylki dlja prinjatija, osnovnye polozhenija, mehanizmy i perspektivy realizacii.*Obshhestvo i innovacii*,1(2/S),131-143.
11. (n.d.). Retrieved from https://lex.uz/ru/docs/5031048
12. (n.d.). Retrieved from https://www.i-scoop.eu/digital-transformation/digitization-digitalization-digital-transformation-disruption/
13. Ivanovich, K. K. (2020). About some questions of classification of institutional conditions determining the structure of doing business in Uzbekistan. *South Asian Journal of Marketing & Management Research*, 10(5), 17-28. Doi: https://doi.org/10.5958/2249-877X.2020.00029.6

14. Karimullin, A. (2021). Economic levers to stimulate the competitiveness of products. *(n.d.). Forum molodyh uchenyh*, No 9(61), pp. 3-9.
15. Klimenko, O. I., & Majmina, E. V. (2017). Analiticheskaya ocenka razvitiya organizacij v kontekste zadachi povysheniya tekhnologichnosti i naukoemkosti otechestvennoj ekonomiki. *Vestnik Belgorodskogo universiteta kooperacii, ekonomiki i prava, (4), 9.*
16. Korneeva, T. A., Potasheva, O. N., Tatarovskaya, T. E., & SHatunova, G. A. (2018). Integrirovannaya otchetnost' kak novyj podhod k sistemnoj harakteristike deyatel'nosti biznes-sub"ekta. *Vestnik Samarskogo gosudarstvennogo ekonomicheskogo universiteta, (12), 48-58.*
17. Kurpayanidi, K. (2021). Aktual'nye voprosy cifrovizacii v industrial'nom sektore ekonomiki Uzbekistana. *OII*, №4/S, https://cyberleninka.ru/article/n/aktualnye-voprosy-tsifrovizatsii-v-industrialnom-sektore-ekonomiki-uzbekistana
18. Kurpayanidi, K. (2021). Modern Concepts and Models of Entrepreneurship Development. *Bulletin of Science and Practice, 7*(9), 425-444. https://doi.org/10.33619/2414-2948/70/40
19. Kurpayanidi, K. (2021). *National innovation system as a key factor in the sustainable development of the economy of Uzbekistan*. Published online: 20 May 2021. Doi: https://doi.org/10.1051/e3sconf/202125805026
20. Kurpayanidi, K. (2021). Aktual`nye voprosy cifrovizacii v industrial`nom sektore jekonomiki Uzbekistana. *Obshhestvo i innovacii*, 2(4/S), 201–212. https://doi.org/10.47689/2181-1415-vol2-iss4/S-pp201-212
21. Kurpayanidi, K. I. (2017). "Doing Business 2017: Equal Opportunities for All" as a Driver of Entrepreneurial Environment Regulation. *Economic Analysis: Theory and Practice*, *16*(3 (462)).
22. Kurpayanidi, K. I. (2018). K voprosam ocenki effektivnosti predprinimatel'stva v rejtinge Forbes «Luchshie strany dlya biznesa» (na materialah Respubliki Uzbekistan). *Byulleten' nauki i praktiki*, T. 4. №3, pp. 193-202. Doi: https://doi.org/10.5281/zenodo.1198710
23. Kurpayanidi, K. I. (2018). Questions of classification of institutional conditions, determining the structure of business management in Uzbekistan. *ISJ Theoretical & Applied Science*, 9(65), 1.
24. Kurpayanidi, K. I. (2019). Theoretical basis of management of innovative activity of industrial corporation. *ISJ Theoretical & Applied Science*, 01 (69), 7-14. Doi: https://dx.doi.org/10.15863/TAS.2019.01.69.3
25. Kurpayanidi, K. I. (2020). Actual problems of implementation of investment industrial entrepreneurial potential. *ISJ Theoretical & Applied Science*, 01 (81), 301-307. Doi: https://dx.doi.org/10.15863/TAS.2020.01.81.54
26. Kurpayanidi, K. I. (2020). Corporate industry analysis of the effectiveness of entrepreneurship subjects in the conditions of innovative activity. *Jekonomika i biznes: teorija i praktika.*, (2-1).
27. Kurpayanidi, K. I. (2020). On the problem of macroeconomic analysis and forecasting of the economy. *ISJ Theoretical & Applied Science, 03 (83), 1-6.* Doi: https://dx.doi.org/10.15863/TAS.2020.03.83.1
28. Kurpayanidi, K. I. (2020). To the problem of doing business in the conditions of the digital economy. *ISJ Theoretical & Applied Science, 09 (89), 1-7.* Doi: https://dx.doi.org/10.15863/TAS.2020.09.89.1
29. Kurpayanidi, K. I. (2021). Financial and economic mechanism and its role in the development of entrepreneurship. *Theoretical & Applied Science, (1), 1-7.* https://dx.doi.org/10.15863/TAS.2021.01.93.1
30. Kurpayanidi, K. I. (2021). Sovremennye koncepcii i modeli razvitiya predprinimatel'stva. *Byulleten' nauki i praktiki,7(9).*
31. Kurpayanidi, K. I. (2021). The evolution of scientific and theoretical ideas about entrepreneurship. *Logistics and economics. Scientific electronic journal, 3, 178-185.*
32. Kurpayanidi, K. I. (2021). The institutional environment of small business: opportunities and limitations. *ISJ Theoretical & Applied Science, 09 (101), 1-9.* Doi: https://dx.doi.org/10.15863/TAS.2021.09.101.1
33. Kurpayanidi, K. I., & Ashurov, M. S. (2020). *COVID-19 pandemic sharoitida tadbirkorlik va uni rivozhlantirish masalalari: nazaria va amaliyot*. Monograph. GlobeEdit Academic Publishing. https://doi.org/10.5281/zenodo.4046090
34. Kurpayanidi, K. I., & Mukhsinova, S. O. (2021). The problem of optimal distribution of economic resources. *ISJ Theoretical & Applied Science*, 01 (93), 14-22. Doi: https://dx.doi.org/10.15863/TAS.2021.01.93.3
35. Kurpayanidi, K., & Abdullaev, A. (2021). Covid-19 pandemic in central Asia: policy and environmental implications and responses for SMES support in Uzbekistan. In *E3S Web of Conferences* (Vol. 258, p. 05027). EDP Sciences.
36. Kurpayanidi, K., Abdullaev, A., & Muhsinova, SH. (2021). Analysis of the macroeconomic policy of the Republic of Uzbekistan. *Obshchestvo i innovacii, 2(6/S), 248-252.*
37. Kurpayanidi, K.I. (2018). Questions of classification of institutional conditions, determining the structure of business management in Uzbekistan. *ISJ Theoretical & Applied Science*, 09 (65): 1-8. Doi: https://dx.doi.org/10.15863/TAS.2018.09.65.1

38. Kurpayanidi, K.I. (2018). The typology of factors of increasing the innovative activity of enterprise entrepreneurs in the industry. *ISJ Theoretical & Applied Science*, 10 (66), 1-11. Doi: https://dx.doi.org/10.15863/TAS.2018.10.66.1
39. Kurpayanidi, K.I. (2020). Corporate industry analysis of the effectiveness of entrepreneurship subjects in the conditions of innovative activity. *Ekonomika i biznes: teoriya i praktika - Journal of Economy and Business*, 2-1, pp.164-166. Doi: https://doi.org/10.24411/2411-0450-2020-10111
40. Kurpayanidi, K.I. (2020). Some issues of macroeconomic analysis and forecasting of the economy of Uzbekistan. *Iqtisodiyot va innovatsion texnologiyalar. Ilmiy elektron jurnali. 2, mart-aprel*., pp.100-108.
41. Kurpayanidi, K.I. (2021). Sovremennye koncepcii i modeli razvitiya predprinimatel'stva. *Byulleten' nauki i praktiki, 7(9).*
42. Kurpayanidi, K.I. (2021). Sozdanie maly`kh predpriyatij: samorazvitie ili integraczionnoe razvitie, kakoj put` vy`birayut strany` mira. *Problemy` sovremennoj e`konomiki, 3.*
43. Kurpayanidi, K.I., (2020). Corporate industry analysis of the effectiveness of entrepreneurship subjects in the conditions of innovative activity. *Journal of Economy and Business*, 2-1, pp.164-166. Doi: https://doi.org/10.24411/2411-0450-2020-10111
44. Kvasha, N. V., Demidenko, D. S., & Voroshin, E. A. (2017). *Transformacija modeli industrial'nogo razvitija v uslovijah cifrovizacii jekonomiki*. In Tendencii razvitija jekonomiki i promyshlennosti v uslovijah cifrovizacii (pp. 93-116).
45. Mamatova, Z. M., Nishonov, F.M., et al. (2019). To the question of science approach to the construction of outsourcing business model of modern enterprise structure. *Dostijeniya nauki I obrazovaniya.* 7 (48). https://cyberleninka.ru/article/n/to-the-question-of-science-approach-to-the-construction-of-outsourcing-business-model-of-modern-enterprise-structure
46. Mamurov, D. (2019). Osobennosti podderzhki innovacionnoj dejatel'nosti: zarubezhnyj opyt i praktika dlja Uzbekistana. *Bjulleten' nauki i praktiki*, 5 (11), 255-261. Doi: https://doi.org/10.33619/2414-2948/48/29
47. Mamurov, D. (2021). Innovacionnaya sistema predpriyatiya kak osnova modernizacii sovremennoj promyshlennoj korporacii. *Obshchestvo i innovacii, 2(4/S),* 322–328. https://doi.org/10.47689/2181-1415-vol2-iss4/S-pp322-328
48. Margianti, E. S., Ikramov, M. A., Abdullaev, A. M., & Kurpayanidi, K. I. (2020). *Role of goal orientation as a predictor of social capital: Practical suggestions for the development of team cohesiveness in SME's.* Monograph. Gunadarma Pulisher, Indonesia. Doi: http://dx.doi.org/10.13140/RG.2.2.28953.44641
49. Mashkina, N. A., & Veliev, A. E. (2020). Influence of the digital economy on the development of the transport industry in the world. *TsITISE*, *1*(20), 290-299.
50. Mohamed, M. (2018). Challenges and benefits of Industry 4.0: an overview. *International Journal of Supply and Operations Management*, *5*(3), 256-265.
51. (2021). *Most Valuable Companies in the World – 2021*. https://fxssi.com/top-10-most-valuable-companies-in-the-world
52. Muminova, E. A. (2020). Introduction of blockchain technology in the process of corporate financial management and its pros and cons. *EPRA International Journal of Multidisciplinary Research (IJMR), 6 (4), 80-85.*
53. Muminova, E. A., & Khamdamova, U. O. (2020). Foreign practice in digitization of economy: influence of Internet resources. Gosudarstvennoe regulirovanie social`no-jekonomicheskih processov v uslovijah global`nogo krizisa: materialy mezhdunarodnoj nauchno-prakticheskoj konferencii, Vladivostok, 22 oktjabrja goda, (pp.11-19). Saratov: Obshhestvo s ogranichennoj otvetstvennost`u "Centr professional`nogo menedzhmenta "Akademija Biznesa".
54. Muminova, E. A., & et al. (2020). Economic and Social Policies During Covid-19 Period: Relief Plan of Uzbekistan. *International Journal of Advanced Science and Technology*, *29*(06), 5910.
55. Muminova, E., Honkeldiyeva, G., Kurpayanidi, K., Akhunova, S., & Hamdamova, S. (2020). Features of Introducing Blockchain Technology in Digital Economy Developing Conditions in Uzbekistan. *In E3S Web of Conferences (Vol. 159, p. 04023). EDP Sciences. DOI: 10.1051/e3sconf/202015904023*
56. Simões, A., Ferreira, F., Castro, H., Senna, P., Silva, D., & Dalmarco, G. (2021, July). Adoption of digital technologies during the COVID-19 pandemic: Lessons learned from collaborative Academia-Industry R&D case studies. In *2021 IEEE 19th International Conference on Industrial Informatics (INDIN)* (pp. 1-7). IEEE.
57. Tkach, D. V., et al. (2020). Some questions about the impact of the COVID-19 pandemic on the development of business entities. *ISJ Theoretical & Applied Science*, 11 (91), 1-4. Doi: https://dx.doi.org/10.15863/TAS.2020.11.91.1
58. Tsoy, D., Tirasawasdichai, T., et al. (2021). Role of Social Media in Shaping Public Risk Perception during COVID-19 Pandemic: *A Theoretical Review. International Journal of Management Science and Business Administration*, 7(2), 35-41.

59. Turgunov, M. (2019). *Mechanisms of effective management of corporations in the Republic of Uzbekistan.* Teorija i praktika korporativnogo menedzhmenta. (pp. 123-124).
60. Turgunov, M. (2021). Issues of innovative approach and financing of innovative projects in rapid economic development. *Jekonomika i socium*, (7), 151-159.
61. Turgunov, M. (2021). State and prospects of the Republic of Uzbekistan in international ratings of innovation development. *ISJ Theoretical & Applied Science, 7(99), 37-41.*
62. Vasin, S., Gamidullaeva, L., Shkarupeta, E., Finogeev, A., & Palatkin, I. (2018). *Emerging trends and opportunities for industry 4.0 development in Russia.*
63. Wang, M., Wang, C. C., Sepasgozar, S., & Zlatanova, S. (2020). A systematic review of digital technology adoption in off-site construction: Current status and future direction towards industry 4.0. *Buildings*, *10*(11), 204.
64. Kvasha, N. V., Demidenko, D. S., & Voroshin, E. A. (2017). *Transformacija modeli industrial`no go razvitija v uslovijah cifrovizacii jekonomiki.* In Tendencii razvitija jekonomiki i promyshlennosti v uslovijah cifrovizacii (pp. 93-116).
65. Kurpajanidi, K. (2021). Aktual`nye voprosy cifrovizacii v industrial`nom sektore jekonomiki Uzbekistana. *OII.*, №4/S. https://cyberleninka.ru/article/n/aktualnye-voprosy-tsifrovizatsii-v-industrialnom-sektore-ekonomiki-uzbekistana
66. Kurpajanidi, K. I. (2018). K voprosam ocenki jeffektivnosti predprinimatel`stva v rejtinge Forbes «Luchshie strany dlja biznesa» (na materialah Respubliki Uzbekistan). *Bulleten` nauki i praktiki*, T. 4. №3, pp.193-202. Doi: https://doi.org/10.5281/zenodo.1198710
67. Kurpajanidi, K. I., Abdullaev, A. M. (2021). Sovremennye koncepcii i modeli razvitija predp-rinimatel`stva. *Bulleten` nauki i praktiki*, 7(9).
68. Kurpajanidi, K. I. (2020). Aktual`nye voprosy innovacionnoj strategii razvitija territorij Uzbekistana. Finansovo-pravovye i inno-vacionnye aspekty investirovanija jekonomiki regiona: Sbornik materialov mezhdunarodnoj nauchno-prakticheskoj konferencii, Moskva-Fergana, 27 maja 2020 goda, Moskva-Fergana: Obshhestvo s ogranichennoj otvetstvennost`u "Rusajns", pp.166-171.
69. Kurpajanidi, K. I., & Ashurov, M. S. (2019). Ўzbekistonda tadbirkorlik muҳitining zamonavij ҳolati va uni samarali rivozhlantirish muammolarini baҳolash.– Mauritius: GlobeEdit, p.214. – ISBN 9786139415571. – DOI 10.13140/RG.2.2.34273.74088.
70. Kurpajanidi, K.I. (2021). Sozdanie malyh predprijatij: samorazvitie ili integracionnoe razvitie, kakoj put` vybiraut strany mira. *Problemy sovremennoj jekonomiki*, 3.
71. Mamurov, D. (2021). Innovacionnaja sistema predprijatija kak osnova modernizacii sovremennoj promyshlennoj korporacii. *Obshhestvo i innovacii*, *2*(4/S), 322–328. https://doi.org/10.47689/2181-1415-vol2-iss4/S-pp322-328
72. Mahmudova, G. N. (2021). *Prioritetnye napravlenija razvitija cifrovoj jekosistemy v Uzbekistane.* Cifrovaja jekonomika, umnye innovacii i tehnologii: Sbornik trudov Nacional`noj (Vserossijskoj) nauchno-prakticheskoj konferencii s zarubezhnym uchastiem, Sankt-Peterburg, 18-20 aprelja goda, Sankt-Peterburg: Politeh-Press, pp.337-341. – DOI 10.18720/IEP/2021.1/106.
73. Muminova, Je.A. (2019). *Korporativ molijavij rezhalashtirishni tashkil jetishda blokchejn tehnologijasi.* Monografija. GlobeEdit, ISBN 978-620-0-50876-8.
74. Muminova, Je.A. (2020). Iktisodijotning turli tarmoklarida blokchejn tehnologijasidan unumli fojdalanish imkonijatlari. *Iktisodijot va ta#lim*, 3, 57-61.
75. Muminova, Je.A. (2020). Iktisodijotni rakamlashtirishda fintex tehnologijalar va ularni zhorij jetishning horizhij tazhribasi. *Iktisodijot va innovacion tehnologijalar*, 5, 303-310.
76. Muminova, Je.A., & Kurpajanidi, K. I. (2019). *Voprosy ocenki predprinimatel`skoj sredy dlja uspeshnogo vedenija biznesa. Fundamental`nye osnovy innovacionnogo razvitija nauki i obrazovanija* : monografija, (pp.28-41). Penza: "Nauka i Prosveshhenie".
77. Muminova, Je.A., & Sanakulova B.R. (2020). Korporativ molijavij boshkaruv zharajoniga blokchejn tehnologijasini zhorij jetishning utuk va kamchiliklari. *Jekonomika i finansy* (Uzbekistan), 1 (133). https://cyberleninka.ru/article/n/korporativ-moliyaviy-bosh-aruv-zharayoniga-blokcheyn-tehnologiyasini-zhoriy-etishning-yutu-va-kamchiliklari
78. Nishonov, F. M., & Tolibov I. Sh. u. (2019). Konkurencija - kluchevaja kategorija rynochnyh otnoshenij. *Nauchnyj zhurnal*, № 7(41), pp.74-76.
79. Tolibov, I. Sh. (2019). K voprosu ocenki sostojanija i jeffektivnosti infrastruktury predprinimatel`stva v regionah Uzbekistana. *Jekonomika i biznes: teorija i praktika*, (1).
80. Turgunov, M. M. (2021). Sovershenstvovanie mehanizmov upravlenija predprijatijami pishhevoj promyshlennosti. *Nauka segodnja: fundamental`nye i prikladnye issledovaynija*, 25.
81. Hamdamova, F. (2020). Strategija «Cifrovoj Uzbekistan-2030»: predposylki dlja prinjatija, osnovnye polozhenija, mehanizmy i perspektivy realizacii. *Obshhestvo i innovacii*, *1*(2/S), 131-143.