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METHODS OF INTRODUCTION OF ARTIFICIAL INTELLECT TECHNOLOGIES IN STATISTICAL ANALYSIS OF AGRICULTURAL EFFICIENCY

Abstract. Currently, the use of digital technologies in almost all spheres of human activity is developing rapidly. Based on this, the monitoring of all the necessary Intellect technologies in statistical Integrity Intellect technologies is to assess them, assess all the necessary information, to comply with it in this direction. Practical measures are covered. We hope that the use of international experience and innovative ideas are included in the use of the innovation and offers in agovaia.

Keywords: devices, drones, artistic intellect technologies, infrared cameras.

Introduction. The main technological level of development of agricultural enterprises in Uzbekistan is a low technological level and investment activities. In the country and many regions, in recent years, the network pays special attention to the development of a digital economy. The President in the Decreighting Decrees on this direction is reflected in the resolution of the Cabinet of Ministers "On measures to develop the Cabinet of Ministers and the Cabinet of Ministers".

According to the analysis, throughout the season, the manufacturer of agricultural products (in a short period of time) has to receive more than 40 different solutions. Most of it is calculated objects and affects the efficiency of production directly. According to the estimation, 33 percent of the harvest is lost in planting, cultivation, storage and transportation. In such conditions, the

technologies of "smart" or "smart agriculture" of existing land, water, material and technical resources are important. [3]

The technical and technological base of the industry mainly determines the overall development of the agro-industrial complex. This is manifested in technological improvement of livestock and plant cultivation, increasing the productivity and mechanization activities. The lack of machinery limits the capacity of farmers and increases labor consumption in the cost of products. Effective use of existing technical means will reduce its time period and accelerate the process of reproduction, along with the use of innovative technologies.

The modern stage of social development is characterized by high-speed technological development. Over the past 30 years, computers and information technologies have reached the production and non-manufacturing sectors of society, including the economy. Agriculture was no exception. Curriculum The acceleration of informatization is the basis for ensuring future development sustainability. Innovation is the basis of progressive growth of the economy. As mentioned above, agriculture is also facing many challenges and problems as one of the main sides of the national economy of many countries.

On approval of the President of the Republic of Uzbekistan "Digital Uzbekistan - 2030" and "On measures of PF-6079" on October 5, 2020 "October 5, 1920" Widespread current introduction of digital economy and electronic government On measures "In accordance with the decision of PP-469 to reach April 28, the Agro-Industrial Information and Communications of the Republic of Uzbekistan for the Development of the Agro-Industrialization System and Agricultural Numbering System In the system of implementation of targeted projects, introduction of targeted projects on the implementation of technologies, introduction of targeted projects, implementation of targeted projects, sales of agricultural products, in the system of the Ministry of Agriculture of the Republic of Uzbekistan and the Ministry of Agriculture of the Republic of Uzbekistan

Priorities of the numbering such as the uninterrupted operation of software products has been identified.

This is especially true of the Decree "On the New Uzbekistan's Development Strategy for 2022-22026" in Decree No. PF-60. "... The organization of deep processing of agricultural products and the rapid development of the regions", "... In the Method of Single Industrial Cluster, Chirchik Machine are organized.

The strategy for the development of Tashkent region focuses on the agricultural sector. According to the Development Strategy for 2022-2026, the provision of innovations based on innovations in all districts of the region is being established.

Telecial literature analysis

Academician S.S Gulyamov, academician technologies in the statistic analysis of agricultural efficiency in our country, commented on the implementation of artificial efficiency: This technology for the first time is the highest agricultural Converts the technological industry, decisions made based on data processing. Thus, the drones for agriculture are not based on speed or flexibility, but based on the type and quality of data they collect. The needs of this sector are high sensitive sensors and improved cameras development. The second task will consist of creating drones that require minimal and have high-level automation. [1]

In addition, Gaziyeva R.T., Kobodjanov A.S., Ismailov S.Y. The watering process automation in the fruit of the irrigation process in fruit parks has brought their scientific and practical proposals in the development of water storage, irrigation process through integration management systems.

Foreign scholars Bestaeva N.B., SultanGalalaeva Dj.K., Zubov A.D. Russia, North Africa, Japan and Kazakhstan in analysis of agricultural monitoring systems, used by existing monitoring systems, farm, small There were experiments in agricultural systems. At the same time, the presence of the state of plants, fires, monitoring of wildlife, animals and harmful insects, including pests,

O to further develop agriculture through artificial intelligidect technologies 'z is also adding the contribution.

Jones J.W., Antle J.M., Basso B., Boote K. W., Conant R.T., Foster I., GODFRAY H.C. Foreign scientists focus on the capabilities and limitations of the models of agricultural systems. Although the current agricultural models are necessary for use, these scientists have identified the restrictions and should be used in particular 1) development, assessment, and agricultural models Lashklash, 2) noted that there are insufficient knowledge systems for the effective conveying the model results.

Recognizing the great scientific and practical value of these scientists, agricultural enterprises should also require more financial, economic and organizational aspects of the introduction of digital technologies. There is a scientific-practical need to identify strategic priorities, organizational and governance mechanisms and digitization models in assessing the efficiency of digital technologies in the field. [2]

Research Methodology

The research process was effectively used by the method of analysis and the information of traditional synthesis. In particular, agriculture, communications and innovative technologies, have been given priorities for the use of agricultural drones.

In addition, the research wind exploited the theoretical and scientific research methods, and the author studied scientific works of scientists who studied this Movunda.

Analysis and results

In this regard, the panel data on drool data were collected on 48 farms of Kibray district of Tashkent region, using dron technology and required to create a multidisciplinary econometic model based on this panel data. Since units of measurement in the multifunction units of measurement, the information included in the multifunctional econometric modonometric modonometric modon, have imported them all into the unit of measurement.

The factors included in a multi-factoretic econometric model are: a resulting factor: grain, s / (logic) grown by farms. The affected factors are the use of organic fertilizers, kg / ha (LOGX1), annual rainfall mm, (logx2), kg / ha (LOGX3), Water consumption, meters cubic / 1 (LOGX4), the quality of soil,% (LOGX5) and average costs, mln. soums / ha (LOGX6).

We will hold a multifunctional statistics that are included in the model before building a multi-factual econometric model on farms on farms of KIBRAY DISTRICT. The recommendation of the data of the data of grain farms on farms on farms of Kibray district are given in Table 1 below.

Mitor 1

Results of the recommendation statistical statistical on farms of kıbray dıstrıct

	logY	logX1	logX2	logX3	logX4	logX5	logX6
Mean	106.4072	3.070332	35.73951	183.1505	346.6227	54.67431	4.919640
Median	99.44000	3.139286	33.00000	182.0000	354.0000	54.20000	4.972000
Maximum	298.8430	13.40543	97.80000	221.0000	442.0000	59.80000	5.872000
Minimum	5.100000	0.400000	7.000000	146.0000	104.0000	50.10000	4.129000
Std. Dev.	41.73621	0.922737	14.20531	10.50959	45.01350	3.041216	0.525716
Skewness	1.080440	6.003255	1.259996	0.096810	-1.311030	0.201630	0.119439
Kurtosis	5.893207	74.32599	5.647298	3.195961	5.739943	1.768768	1.743027
Jarque-Bera	1643.045	659175.7	1683.176	9.562024	1812.193	211.4974	206.2674
Probability	0.000000	0.000000	0.000000	0.008388	0.000000	0.000000	0.000000
Sum	321775.4	9284.684	108076.3	553847.0	1048187.	165335.1	14876.99
Sum Sq. Dev.	5265799.	2573.911	610013.9	333894.5	6125248.	27959.71	835.4876
Observations	3024	3024	3024	3024	3024	3024	3024
Cross sections	7	7	7	7	7	7	7

The average value of each factor in table data (Meanan), median (median), maximum and minimum values (maximum, minimum) can be seen. Moreover, each factor's standard deviation (STD.

Squewness is asymmetry coefficient, which indicates the fact that it is a normal distribution and the symmetrical of the distribution. If this coefficient differs is much more than 0, then the distribution is asymmetric (i.e., not symmetrical). If the Asymmetry coefficient is greater than 0, that is, positive, then the normal distribution of the studied will be pushed to the graph of the Graph of Graph. The normal distribution graph on the fact that the factor being studied is

less than 0, is a negative. Asymmetry coefficients of all factors except the processes we are studying (asymmetry coefficients of all factors except (Table 1) and functions can be seen in the right (Figure 1). These discons show mainly changes in the dynamics of the factors studied. In some cases, some factors had a sharp increase in facts, while the changes were not significantly. The graphics of normal distribution functions of all factors are shown in Figure 1 below.

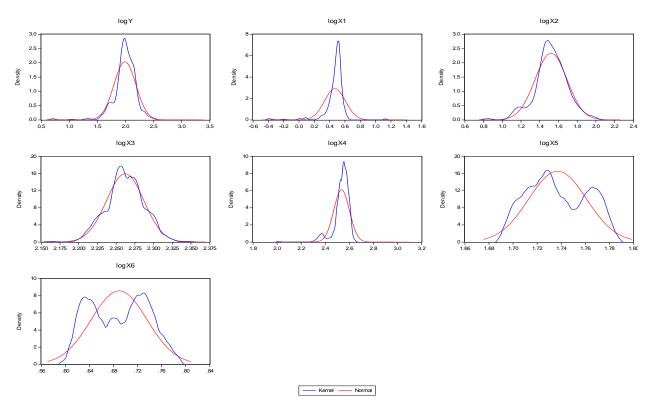


Figure 1. Graphs Graphs

It can be seen in Figure 1 that all factors are subject to a normal distribution law. Theoretical schedule of the Normal distribution was theoretical schedule because the eco-distribution of LogX, LOGX1, LOGX3, LOGX3, LOGX3 and LOGX3, larger than 3. In addition, asymmx1, LOGX1, LOGX 3, LOGX3, LOGX5 and LOGX7, which shows that these factors are longer than the "right tail". Only Logx4 Asymmetry Caesati value can be seen that the "left tail" is longer than the "right tail" (Figure 1)

Jacques (Jarque) criteria will be used to check the factors in the normal distribution of many factors to normal distribution. This criterism is statistical

criterism, which is checked for a normal distribution of observations (asymmetry) with normal distribution materials (ITSSESS) and s = 0, and k = 3.

In the criterion of Jokba, the scale against hypothesis is inspected, where the C - Asymmetry coefficient, K - Eckess coefficient Jac-ship criterion is calculated on the following formula:

$$JB = n \left(\frac{S^2}{6} + \frac{(K-3)^2}{24} \right), \tag{1}$$

 $S = \frac{\sum e_i^3}{n\hat{\sigma}_{Ma}^3}, K = \frac{\sum e_i^4}{n\hat{\sigma}_{Ma}^4} \text{ va } e_i - \text{Model residues, - number of observations } \hat{\sigma}_{ML}^2 = \frac{\sum e_i^2}{n}$

ML - determination of similar methods for maximum reality. These statistics are distributed with two levels of freedom of freedom of freedom, as the Asymmetry coefficient image is normal, its squares are also normal.

It can be seen in Table 1 mentioned above that all the factors included in a multi-factorometric modenometric model should be subject to normal distribution. This is being approved by the calculated parameters and criteria, that is, jak-debuting coefficients accepted large values for all factors and are less than 0.05 (probability).

References:

- 1. Gaziyeva R.T., Qobildjanov A.S., Ismoilov S.Y. Mevali bog'larda suv tejovchi sug'orish jarayonini boshqarishning intellektual tizimi, Oʻzbekistonda "Aqlli qishloq xoʻjaligi" va "Qishloq xoʻjaligi 4.0" konsepsiyalarini amalga oshirish: muammo va yechimlar mavzusida respublika ilmiy-amaliy anjumani, 2021y, 157-165 betlar.
- 2. Gulyamov S.S. "Qishloq xoʻjaligi samaradorligini statistik tahlil qilishda sun'iy intellekt texnologiyalarini joriy etishdagi harakatlar", «Sanoat

iqtisodiyoti va menejmenti: muammo va yechimlar» mavzusidagi II -halqaro ilmiy-amaliy konferensiya. –T.: 2022. - 640 b. 11-14 betlar.

- 3. Бестаева Н.В., Султангалиева Дж.К., Зубова А.Д. Исследование систем мониторинга в сельскохозяйственной сфере // Научный результат. Информационные технологии. Т.3, №1, 2018
- 4. Jones J.W., Antle J.M., Basso B., Boote K.J., Conant R.T., Foster I., Godfray H.C. Toward a new generation of agricultural system data, models, and knowledge products: State of agricultural systems science, National library of medicine 2017 Jul; 155: 269–288.
- 5. https://dialogue-irk.ru/uz/onlajjn-servisy/cifrovoi-peredel-preimushchestva-i-riski-cifrovizacii-selskogo/
- 6. https://m.kun.uz/uz/news/2019/04/11/ozbekistonda-aqlli-qishloq-xojaligi-texnologiyalari
- 7. https://dialogue-irk.ru/uz/onlajjn-servisy/cifrovoi-peredel-preimushchestva-i-riski-cifrovizacii-selskogo/
- 8. https://www.forbes.com/sites/louiscolumbus/2021/02/17/10-ways-ai-has-the-potential-to-improve-agriculture-in-2021/?sh=4c541e627f3b
- 9. https://intellias.com/ productivity prediction using drone data based on artificial intelligence technologies/artificial-intelligence-in-agriculture/
- 10. Tanha Talaviya, Dhara Shah, Nivedita Patel, Hiteshri Yagnik, Manan Shah, implementation of artificial intelligence in agriculture for optimisation of irrigation and application of pesticides and herbicides, artificial intelligence in agriculture, volume 4, 2020, pages 58-73, issn 2589-7217.
- 11. Saiz-Rubio V, Rovira-más F. from smart farming towards agriculture 5.0: a review on crop data management. agronomy. 2020; 10(2):207. https://doi.org/10.3390/agronomy10020207.

https://www.javatpoint.com/artificial-intelligence-in-agriculture