THE ROLE OF AGRICULTURAL PRODUCTS IN PRIVATE BUSINESS ACTIVITY

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ABSTRACT

This article improves the theoretical basis of the mechanisms of empirical model construction and forecasting using systematic analysis and digital technologies to ensure the macroeconomic stability of the development of agricultural production. Effective use of the main production resources, or more generally, the level of use of the existing potential, in ensuring the macroeconomic stability of the development of the production of agricultural products, was evaluated.

KEYWORDS: *Digital Technology, Empirical Model, Econometric Model, Potential, Relative Model, Forecast Results, Information System, Endogenous Variables, Exogenous Variables, Enter.*

INTRODUCTION

Practical recommendations aimed at introducing the experience of developed foreign countries in the future and increasing the efficiency of the development and management of the production of agricultural products in the future based on econometric models were developed.

The importance of building a mathematical model of business processes, solving problems of improving production in terms of quantity and quality in the development of agriculture can be justified by the importance of meeting the primary needs of society.

Analysis of literature on the topic. E.I. Ruzina, D.V. Kuzmin, David D. Edwards, Chris Anderson, Eric Brynjolfsson, David A. Vise, Maria Johnsen and from foreign scientists on the problems of improving the organizational and economic mechanisms of the introduction of information technologies in the digitization of housing and communal services management. expressed in the scientific works of others.

In addition, a number of CIS economists, including Ekaterina Dmitreva, M.Yu.Smirnov, V.S.Ziyautdinov, I.V.Voronin, T.A.Zolotaeva, Olga Kovaleva, I.V.Yakovlevava, and others, use agricultural sectors in their scientific works. attention is paid to the issues of innovative development, formation of an innovative system. The issue of introducing information

technologies in the digitization of housing and communal service management and measures to increase its economic efficiency are reflected in the decisions and reports of the President of the Republic of Uzbekistan Sh.M. Mirziyoev. Also, this issue was discussed by the economists of our republic, in particular, Sh.Kh. It was noted in the scientific works of Mamatkulov, S.B. Bobokulov and others.

Research methods. Agriculture is a very complex system. For this reason, it is necessary to create business plans for the process of developing agricultural products through mathematical description, to analytically express all the dependencies. With the help of making business plans for the production of agricultural products, we will be able to quantitatively assess the laws of development, determine the ways of development and forecasting based on the determination of trends in economic indicators.

For this we use the relative model and modeling concepts. In econometrics, the concept of relative model depends on gross product (U) consumption of resources in the enterprise (x1, x2, ..., xn) and it is written in the form Y=F(x1,...,xn).[5] Here (x1, x2, ..., xn) - free variables - are called factors. If in the relative model, the inputs are selected according to the consumption of resources, then this represents the production function. But factors affecting economic growth are not limited to resource consumption. There are sectors of the economy in which it is necessary to give a relative model with a wide range of factors.

The search for optimal production options in agriculture usually goes back to resource availability. Organization of production on the basis of business planning has not been improved today. The reason for this is the complexity of calculation in the application of mathematical programming methods, the cyclic nature of problems, and others. Here, we believe that the improvement should be based on finite variability in the application of the mathematical programming apparatus.

We selected the main production resources, taking into account the possibility of their costs increasing, we developed an overview of the kinetic production function, and we built special models of this function for the Kashkadarya region. We also found that the Cobb-Douglas type production function can only be used if there is no cost overrun.
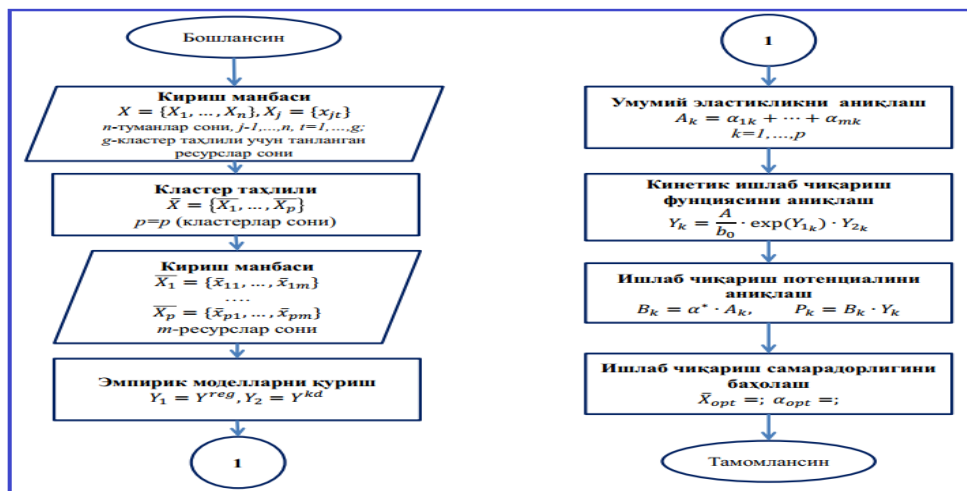

Figure 1. Algorithm block diagram for solving the problem of evaluating the efficiency of using agricultural production potential

The general view of the kinetic production function for agricultural production that we have proposed is as follows, i.e

$$.Y_k = \frac{A_k \cdot Y}{a_0} = A_k \cdot \prod_{j=1}^{n} x_j^{\alpha_j} \cdot e^{a_j x_j}$$

(4)

is represented by the equation Based on (4), we used the following model to evaluate the effectiveness of using the existing potential in the production of regional agricultural products in a private case

$$Y_k = \frac{A_k \cdot Y}{a_0} = A_k \cdot \prod_{j=1}^{4} x_j^{\alpha_j} \cdot e^{a_j x_j}$$

(5)

Here Y is determined from the following equation $\ln(Y) = \ln(a_0) + \sum_{j=1}^{4} a_j x_j + \sum_{j=1}^{4} \alpha_j \ln(x_j)$,

(6)

also x1 – agricultural land area (thousand ha); x2 – average number of workers; x3 – annual average value of the main production funds; x4 – amount of working capital (billion soums); Y is the volume of gross agricultural output (billion soums).

In model (5) - the elasticity of the j-free variable ( ), - the coefficient representing the change (increase or decrease) of the resulting quantity in relation to the amount of this factor for a 1 percent change (increase) of the j-factor ( ), - the proportionality coefficient. The proportionality coefficient will not have any content (do not participate) in the basic model.

If we pay attention to the structural structure of the linear equation (6), the xj resource in it comes with its logarithmic value. Practically, if a state of disequilibrium is observed in any of the production resources, in model (6) this resource comes with its logarithmic value. In this case, it is necessary to reduce or increase resource consumption. This can be expressed in the following relation $c = \alpha_j + a_j x_j, \ j = 1,2,...,4$.   (7)

If in (7) is not equal to zero, the optimal state of the j-resource amount sufficient for the growth of the production volume (Y) is determined by the ratio.

If the multiplier in (7) is zero, then a 1 percent increase in j-resource means a direct percent increase in Y (must always be positive).

If equal to zero, then a 1 percent increase in resource j means a direct percent increase (or decrease) in Y. More precisely, if it is negative, the increase in the amount of the resource is accompanied by a decrease in the efficiency of its use (resource use efficiency is low on average), and a 1 percent increase in j-resource represents a direct percent decrease in Y. Also, in model (5), every resource is involved.

SWOT analysis of agricultural development of Kashkadarya region was conducted in the study (Table 1).

Through the SWOT analysis, it will be possible to understand what needs to be paid attention to in the organization of regional agriculture, and the importance of agriculture in satisfying the interests of the family, society and the state. In particular, our citizens who want to organize agriculture start their work knowing that agriculture is protected by the state, that there is a legal basis, and that they are satisfying the interests of their families and the population through their chosen work. The results of the SWOT analysis also help other agricultural companies operating in the region to know the situation of their competitors, because in the analysis, the agricultural companies list their strengths and weaknesses, opportunities and threats.

TABLE 1 SWOT ANALYSIS OF AGRICULTURAL DEVELOPMENT OF KASHKADARYA REGION

STRENGTHS	WEAKNESSES
✓ ☐ the implementation of special agricultural reforms for the development of agriculture and the creation of legal bases; ✓ ☐ adoption of a separate Law "On Agriculture" for the development of agriculture; ✓ ☐ On the basis of the law, he was formed as the owner of land and property; ✓ ☐ the introduction of agriculture into the form of entrepreneurship and the satisfaction of the main link of the society, the public interest; ✓ ☐ that peasants and farmers have fully developed the skills of working with land; ✓ ☐ quick flexibility as a small commodity producer, not prone to bankruptcy; ✓ ☐ that the activity is aimed at earning income.	✓ ☐ lack of improvement of necessary economic mechanisms for agricultural development; ✓ ☐ today there is no clearly regulated, convenient supply system for agriculture; ✓ ☐ provision of agricultural resources with necessary resources is mainly carried out by private individuals; ✓ ☐ limited access to quality resources for agriculture; ✓ ☐ lack of interest in increasing the economic literacy of the villages, they consider it enough if they know how to work with the land, and as a result: ✓ ☐ the number of agricultural farms with legal status is decreasing day by day. ✓ ☐ lack of necessary technical means, violation of mutual cooperation relations with other economic entities, lack of system of purchase of cultivated products.
OPPORTUNITIES	THREATS
✓ ☐ the interest of the rural population is increasing as a result of the increase in the indicators of agricultural economic efficiency; ✓ ☐ the number of employed people in the village is increasing at the expense of agriculture; ✓ ☐ increasing possibility of attracting local investments; ✓ ☐ constantly high quality index of agricultural farms specializing in	✓ ☐ increasing number of people engaged in business in the field of agriculture; ✓ ☐ the fact that agricultural holdings are always pronounced side by side with private estates and household holdings, which leads to the conclusion that all three holdings can be combined into one; ✓ ☐ that the interest of the village is partially satisfied at the expense of "speculators"; ✓ ☐ sharp decrease in the number of farms in desert zones.

animal husbandry; ✓ ☐ that the state continuously adopts measures and programs supporting agriculture.	

Analysis and results. Trend models were developed to assess the development of the agricultural production process. To evaluate the development, the indicator of the production potential of the region, the indicator of the inter-sectoral relative dynamics of the production of agricultural products, the indicator of the structural dynamics of all categories, the indicator of the change trend of the share of auxiliary farms in the total production of agricultural products, the indicator of the total vegetable products of the agricultural farms of the region by all categories the indicator of the dynamics of change of the share in relation to the volume of cultivation, the indicator of the dynamics of the change of the yield coefficient of potatoes, the indicator of the specialization coefficient were selected.

The production potential of the region is determined based on the share of the volume of production of a certain type of products in the volume of products of this type on the republic scale. Also, this indicator is observed in certain periods. Therefore, in assessing the potential of Kashkadarya Oblast, we are based on the share of the volume of agricultural products produced in the past periods (years) in the volume of agricultural products produced on the republican scale in the corresponding periods (years).

The historical share provides an indication of the region's achieved production potential, but it does not reflect the future. For this, it is necessary to know according to which law the line of development continues, based on the current principles, priorities, mechanisms of action introduced into production. The fact that these laws have a dynamic nature means that they are expressed in dynamic models. For this reason, we use trend models to evaluate the potential of the region's HCMC in the next steps.

The importance of this indicator characterizes the resulting magnitude in forecasting with the help of development models of QXMICh.

The trend of the share of the volume of regional GDP in the republic in relation to the size of the total agricultural products in the last twenty years is estimated using the trend model in the form of a 5th order polynomial (Fig. 3). The top-of-the-line model does just that.

CONCLUSIONS AND SUGGESTIONS. From the results of the forecast, we can see that the gross harvest of the main grain products corresponds to the share of farms. Farming of livestock and poultry products will remain stable. This means that currently cattle breeding, sheep and goat breeding, and poultry farming are the basis of agricultural holdings.

USED LITERATURE AND SOURCES:

1. Appendix 1 of the Decree of the President of the Republic of Uzbekistan No. 4947 of February 7, 2017 "Strategy of Actions in Five Priority Areas of Development of the Republic of Uzbekistan in 2017-2021". Lex.uz

2. PF-6079 State program "Development strategies of the Republic of Uzbekistan until 2035" October 5, 2020

3. Introduction to "digital" economy / podobshch. ed. A. V. Cash. M. : VNII Geosystem, 2017. 28 s.