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ADAPTIVE MODELLING OF THE SIZE OF THE RESOURCE BASE AS A MEASURE OF ACTIVITY EFFICIENCY MANAGEMENT OF AGRICULTURAL ENTERPRISES

ABSTRACT

Today, the transformation processes taking place in the modern economy lead to the restructuring of agricultural production on a new technological and socio-economic basis, which requires the formation of a more rational management mechanism, perhaps the most important part of which is the resource base. The change in the return of the resource base for the period in the dynamics is analyzed as the main criterion of expediency of attracting additional capital as the basis of the resource base. It has been established that the issue of the need to attract additional funds for the reproduction of the fixed capital becomes relevant for agricultural producers because an unjustified increase in value leads to an increase in the cost of production, and reduces the value of the final results of the activity. The cost of sale acts as a reserve for obtaining additional income, which can be obtained at the expense of an increase in the sale price. It is proved that there is a direct relationship between the indicators of resource equipment and profitability, with the growth of the resource base used, the profit received by enterprises increases. It is substantiated that the efficiency of resource base use is closely related to specialization and its level, and changing the structure of marketable products to only plant specialization reduces the return on additional investments in the resource base. The existence of a relationship between the indicator of the fund of 100 hectares of agricultural land and the profitability of 100 hectares of agricultural land in the cross-section of enterprises of various specializations using the methods of mathematical statistics is substantiated. Built models by types of groupings by specialization can be used as an additional factor in forecasting and planning the production plan and forming the structure of the company's products.

Keywords: resource base, management, efficiency, specialization, modelling, capital

JEL Classification: M14, O31

INTRODUCTION

Given the formation of market relations, which involve competition between different producers in agribusiness, it is necessary to increase production efficiency significantly, which involves a more rational use of the resource base.

Production efficiency is one of the key categories of a market economy, which is directly related to achieving the ultimate goal of production development as a whole and of each enterprise individually. The economic theory defines the category of efficiency as the effectiveness of the production process, production system or a particular form of management. In the most general form, the economic efficiency of production is a quantitative ratio of two components - the results of economic activity and resources expended (in any proportion). Historically, with all methods of production, regardless of the form of the manufacturer ownership, the manufacturer is interested in the relationship between costs and the results of its activities. The essence of the problem of increasing production efficiency is to increase economic results per unit of cost in the process of using available resources.

The state of the resource base and its efficient use directly affect the final results of the economic activity of an agricultural enterprise and contribute to the improvement of all its economic indicators, in particular: labour productivity, resource efficiency, output, cost, return on capital investment.

As long as capital is used to provide additional products through the organization of better production, it means that it has net productivity.

LITERATURE REVIEW

Adaptation of the size of the resource base in agricultural enterprises should take place in accordance with production plans and sales planning of marketable products, tracking the relationship between the cost of the resource base and the final results of management. Unreasonable accumulation of the resource base reduces the efficiency of its use by increasing the cost of production. The main tasks of adaptation are to reduce initial costs due to inefficiency or increase profitability due to increased productivity and increased production and sales. Analysis of the impact of each unit of advanced investment in the resource base is necessary to achieve the desired results of agricultural enterprises and should be a criterion for the feasibility of attracting additional resources [1, 2, 3].

According to the researched data, since 2021, the total amount of investments in fixed capital has decreased by 1.5 times, which reflects the general state of the economy in these years. The specific weight of the investments attracted through own funds, as well as foreign investments, decreased. Instead, the specific weight of investments made at the expense of the state budget is growing. Taking into account these positive structural dynamics, an important source of the above remains the involvement of funds from state and local budgets in the composition of investments. But the specific weight in the overall structure of investments of these funds is insignificant and on average is about 10%. The investment attractiveness of agricultural enterprises in Ukraine for foreign investors still remains at a low level, as evidenced by the 1% of this source in the total amount of funds raised. Attracting additional funds for capital investments in fixed capital at the expense of bank credits and loans remains an economically unattractive process for agricultural producers due to the significant costs of servicing credit funds, which is indirectly confirmed by their specific weight in the structure of investments, which is about 8 per cent [13].

In the structure of investments, the main source of financing investments in fixed capital remains the own funds of enterprises, therefore, the formation of an accumulation fund at the required level, savings from reducing the cost of production, the sale of excess fixed assets, the use of the depreciation fund as intended mobilizes and increases internal resources for expanded reproduction, which is inextricably linked connected with the increase in the amount of capital investments of agricultural enterprises. The question of the need to attract additional funds for the formation of fixed capital becomes relevant for agricultural producers due to a number of reasons. But this issue should be resolved with the understanding that an unjustified increase in value leads to an increase in the cost of production, and has a negative impact on the final results of operations [4, 5].

The works of many scientists-economists are devoted to the research of problems of formation and effective use of resource base by agricultural enterprises. They include O. Andrus, O. Aburumman, Emeela Wae-esor, K. Kovalska, S. Poongavanam, L. Potomkin and many others. Scientific and practical principles of improving the efficiency of the resource base in agricultural enterprises, as the basis of production, reflected in the works of many domestic scientists, in particular, among them are the following: D. Suhartanto, I. Mulyawan, V. Yukish, M. Zamanan, M. Alkhaldi, A. Almajroub.

However, despite numerous studies by scientists, these issues have remained relevant for several centuries. And the recent change in the state of the internal and external environment of agricultural enterprises, transformational market conditions and the creation of new management mechanisms require intensified study, in-depth research and scientific elaboration of factors, trends and patterns of resource base formation by agricultural enterprises, improvement of scientific and methodological measures. improving the efficiency of resource base use and creating other favourable conditions for increasing the efficiency of agricultural enterprises.

AIMS AND OBJECTIVES

The purpose of the research is the scientific substantiation of approaches to the formation of the resource base of agricultural enterprises and the development of practical recommendations for improving the efficiency of its use as a basis for increasing economic potential and efficiency of agribusiness. Because despite numerous studies by scientists, these questions remain relevant for several centuries. And recent changes in the internal and external environment of the functioning

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of agricultural enterprises in the state, transformational market conditions and the creation of new economic mechanisms require the activation of study, in-depth research and scientific refinement of the factors, trends and regularities of the formation of the resource base by the agricultural enterprises of the country, improvement of the complex of scientific and methodical measures for increasing the efficiency of the use of available capital and creating other favourable conditions for increasing the effectiveness of enterprises. The process of formation and effective use of the resource base by agricultural enterprises in the field of agribusiness. To achieve the set goal, such tasks as determining the sources of the formation of the resource base in agribusiness and the factors influencing this process in the conditions of the transformation of the domestic economy have been defined; development of a methodical approach to the formation of the resource base as the basis of the process of extended reproduction.

METHODS

The theoretical and methodological basis of the study is the fundamental provisions of economic theory, integrated and systematic approaches, and research of scientists. To realize the set goal, such methods were used as abstract-logical (when forming a structural-logical research scheme), monographic (when studying theoretical foundations in accordance with the tasks), calculation-constructive (when assessing the levels of estimated economic efficiency of enterprises), economic -statistical and economic-mathematical methods (when performing calculations and determining efficiency indicators), the method of analysis and synthesis (when studying the effect of factors of the formation of the level of economic efficiency of the use of the resource base, substantiation of reserve mobilization strategies). Research methods such as economic-statistical and economic-mathematical methods were used in performing calculations and determining indicators of efficiency of resource potential of agribusiness. We consider it expedient to use the method of chain substitution in this analysis, as it evaluates the impact of changes in individual factors on the effective factor we need. On the basis of the indicated data, we calculated the influence of individual factors on the change of the performance indicator in the deterministic factor model. Comparing the values of the performance indicator before and after a change in the level of one or another factor makes it possible to exclude the influence of all factors except one and to reveal the influence of the latter on the growth of the performance indicator.

RESULTS

The resource base, its composition and size belong to the list of determining factors of efficient management not only in agriculture but also in other industries. Its size is an important characteristic of the production potential of the enterprise, and its composition largely determines the direction of the formation of its production program. In modern economic market conditions, it is better to consider the size of the resource potential from the point of view of the efficiency of its use, the assessment of which we propose to supplement with methodological principles [5]:

- by calculating the return on investment, as the ratio of profit from sales to the average annual cost of fixed capital, which excludes the influence of price fluctuations;
- calculation of the number of fixed assets spent on the production of a unit of gross output, and analysis of trends in changes in cost and depreciation indicators to identify reserves for cost reduction;
- - analysis of growth rates of labour productivity and capital equipment, which have a mathematical dependence. With the anticipatory growth of capital armament over labour productivity, conditions are created for a fall in capital return in general;
- investigation of the influence of the production specialization factor on the return on fixed capital and ways of increasing efficiency through the adjustment of the production program of enterprises;
- calculation and analysis of fund utilization indicators in terms of groupings according to the level of profitability, which reflects the level of economic independence of economic entities and the possibility of financing extended reproduction at the expense of profit.

The determining influence factors and systemic problems of the development program of key system-forming branches of agriculture of Ukraine and industries, that ensure the development, are identified as the following ones [6, 7, 8]:

- in plant growing - with the existing cost structure of grain production, enterprises are forced to save on depreciation, the result is a significant share of critically worn equipment (morally and physically) in the absence of funds for its renewal;

- in pig breeding - restrictions with the attraction of investment funds for capital construction of fattening complexes and farms (including - a complex of lightweight hangar structures) and equipment for them with a minimized management process;
- in dairy farming - the development of dairy farms with high resource intensity of the industry and, as a consequence, the highest ratio of the value of fixed assets used and the longest payback period of capital [8].

All these are problems of resource base formation, therefore adaptation of the size of the resource base to modern conditions of management will provide its rational use and reproduction according to features of agricultural production and will become an economic basis of enterprises development, formation of their future prospects.

For the development and implementation of the program of rational use and investment in the fixed capital of agricultural enterprises, the formation of the optimal size of the machine and tractor park is of great importance. The approach to solving this problem consists in adapting its composition in accordance with the technological needs of the agricultural enterprise. In our study, the search for optimization directions was carried out with the help of economic and mathematical modelling. These methods, in particular, are described in planning and economic practice, the methods of solving optimization problems that belong to the class of linear programming are the most widely used. The reason for this is an accessible mathematical apparatus, a clear interpretation of the results of solving a mathematical model, the development of computer technologies that make it possible to automate calculations. These and other reasons determined the choice of linear programming as a method of optimizing the composition of the machine and tractor fleet in our study [10].

The development of a linear economic-mathematical model is possible if the following conditions are met [9]:

1. All economic, technological, social requirements, which are taken into account by the optimal solution of the system, must allow their mathematical formulation in the form of linear equations or inequalities.

2. The problem must be clearly formulated and written in a linear form (the objective function must also have a linear form) with a numerical expression of the coefficients for the variables.

3. The application of linear programming methods, in particular, assumes that for each unit of costs of the corresponding resource that production has, an equal amount of the corresponding product is obtained, and that there is indeed a linear relationship between cause and effect, function and argument. It should be noted that economic relations, in fact, especially in agriculture, are extremely complex and the relationship between them is not always linear. However, they can be considered linear in the studied intervals, and in cases where nonlinearity will have a significant impact, it can be taken into account in linear models using piecewise linear programming, the essence of which is that the interval of a nonlinear function is approximated using several linear intervals, the number which is chosen in accordance with the requirements of the desired accuracy of the model. In this way, the reliability of the application of linear programming methods in economic research is ensured.

Implementation of a continuous production process in agriculture requires constant restoration of fixed capital. At the same time, scientific and technical progress puts forth demands for its qualitative renewal. And this, in turn, requires accelerating the pace of recovery and renewal of the fixed capital of the agricultural enterprise.

In our opinion, in modern market conditions, the size of the resource base of agricultural enterprises is better considered in terms of the efficiency of its use. The following arguments can be made in favour of this point of view: firstly, capital is a limited resource; secondly, it allows for alternative uses; third, when making decisions about the use of capital, economic efficiency is a necessary and sufficient criterion. Prioritizing cost-effective industries and projects will contribute to the efficient functioning of the economy as a whole, but this is beyond the scope of our study [5, 11].

As the main criterion for the feasibility of raising additional capital, it is proposed to choose the rate of return on the resource base, calculated by the formula:

$$\Delta B = B_1 - B_0 = \frac{П_1}{O_1} - \frac{П_0}{O_0}, \quad (1)$$

where B1, B0 – return on the resource base in the base and reporting periods, respectively, UAH; П1, П0 – profit from sales in the base and reporting periods, UAH; O1, O0– the average annual cost of the resource base in base and reporting periods, UAH.

The change in the return of the resource base is the result of a joint impact on the results of management of a significant number of factors, so the calculation of this formula (1) allows us to analyze and predict their impact on return at the enterprise level. Deterministic analysis of the impact of the value of the enterprise-formed capital on its efficiency and

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forecast calculations are of practical importance in substantiating the feasibility and direction of changes in the value of the resource base of the enterprise [2].

The study used the data from the annual reports of agricultural enterprises of the country for 2019-2021 and analyzed the business entities, selected by the level of profitability from five groups, with different levels of profitability (Table 1). In order to preserve the confidentiality of financial indicators of enterprises, the objects of research were renamed into virtual names: Simulated enterprise 1…5. It is considered to be expedient to use in this analysis method of chain substitution, as one that assesses the impact of changes in individual factors on the resultant factor we need [13].

There is a two-factor model:

$$B = \frac{П}{О}, \quad (2)$$

where B – return on the resource base, UAH; П – profit from sales, thousand UAH; O – the average annual cost of the resource base, thousand UAH.

The calculation algorithm for this model has the form of the formula (2).

Based on this approach, an analysis of the impact of the resource base cost on the resource use efficiency by individual agricultural enterprises was carried out (Table 1).

Table 1. Analysis of the impact of the resource base cost on the efficiency of agribusiness management. *(Source: calculations based on [13])*

Indicator	Symbol	Size		Dynamics		Influence of factor indicator on effective, UAH
		2020	2021	absolute, UAH	relative, %	
"Simulated enterprise 1", the level of profitability -50% (unprofitable)						
Return on the resource base	B	-0.16	-0.12	0.05	25	0.05
Profit from sales	П	-1780.00	-2157.20	-377.20	21	-0.03
The average annual cost of the resource base	O	11031	18566	7535	68	0.08
"Simulated enterprise 2", profitability level 0%						
Return on the resource base	B	-0.91	0.01	0.92	101	0.93
Profit from sales	П	-10958.00	146.80	11104.80	101	0.93
The average annual cost of the resource base	O	11990	12231	241	2	0.00
"Simulated enterprise 3", profitability level 10%						
Return on the resource base	B	-0.01	0.10	0.11	-1100	0.11
Profit from sales	П	-35.00	308.00	343.00	980	0.10
The average annual cost of the resource base	O	3331	2987	-344	10	0.01
"Simulated enterprise 4", profitability level 55%						
Return on the resource base	B	0.21	2.34	2.13	1014	2.13
Profit from sales	П	2715.00	50895.00	48180.00	1775	3.74
The average annual cost of the resource base	O	12898	21762	8864	69	-1.61
"Simulated enterprise 5", profitability level 239%						
Return on the resource base	B	3.82	3.29	-0.53	14	-0.53
Profit from sales	П	10243.00	7864.00	-2379.00	23	-0.89
The average annual cost of the resource base	O	2681	2387	-294	11	0.36

These are the enterprises that turned out to be the most characteristic in their clusters according to the results of the cluster analysis conducted a little earlier. The data in Table 1 show that "Simulated Enterprise 1" is a loss-making enterprise with a loss of 50% in 2021, profit from sales decreased by 21% with a significant increase in the average annual cost of the resource base by 68%, due to which the return of the enterprise resource base increased by 0.08 hryvnia profit from one hryvnia capital.

"Simulated enterprise 3" belongs to the profitable enterprises, in 2021 it has a level of profitability of 10%. The return on the resource base this year increased by 0.11-hryvnia profit from 1 hryvnia of available capital and changed the negative value of the indicator to a positive one due to overcoming losses and bringing sales to a profitable level. Reducing the cost of the resource base by 10% also had a positive effect on increasing the return on the resource base of the enterprise.

Agricultural enterprise "Simulated Enterprise 2" with a break-even level of profitability in 2021 compared to the base year 2019 increased the return of the resource base by 101%, which came only due to profit growth of 101% with an almost unchanged average annual value of the resource base.

Highly profitable enterprise "Simulated enterprise 4" with a level of profitability in the current year of 55%, increased the return of the available resource base by 10 times compared to the base period due to the growth of the company's profit by 17 times. The increase in the value of the resource base of the enterprise by 69% had a negative impact on the rate of return (1.61-hryvnia loss from 1-hryvnia capital), but the attraction of additional capital is explained and justified by the growth of the performance rate faster.

The agricultural enterprise "Simulated Enterprise 5" with the highest level of profitability of 239% in 2021 reduced the return on the resource base by 14% due to a decrease in sales revenues by 23%. The average annual cost of the resource base also decreased by 11%, which had a positive effect on the return on the resource base of the enterprise. The profit received from one hryvnia of invested capital increased by 0.36 hryvnia compared to the base period.

According to the study, it must be concluded that the size of investments in the resource base has its limits of efficiency, after which the return per unit of invested resources may not always give a positive result. In enterprises that operate profitably, there is a structure of the resource base, rationally formed in quantity and cost, which has a positive effect on the results of the enterprise. The need to raise additional capital is justified in the planning of profits by the enterprise.

Studies of a sample of 172 agricultural enterprises on the indicator of resource availability per 100 hectares of available agricultural land and the level of profitability, allow to determine the relationship between these indicators, i.e., to find out how the equipment affects the profitability of the enterprise. The grouping of enterprises according to these indicators allowed to determine the relationship between them and to some extent to characterize the impact of the level of resource equipment of the enterprise on its profitability (Table 2). According to the calculations, the growth of the level of profitability directly depends on the resource equipment of fixed assets of the enterprise.

In the grouping of farms with a level of fixed capital of up to 20 thousand UAH per 100 hectares of agricultural land included 28 enterprises, the use of the available resource base brings a profit with a level of profitability of 13.91%. These are diversified agricultural enterprises, in which the share of sales of crop and livestock products in revenue is approximately the same, at the level of 50%.

The largest group of agricultural enterprises (58 economic entities), represented by farms that use from 20 to 50 thousand UAH resource base per 100 hectares of agricultural land, are more profitable compared to the previous group and have a profitability of 24.5%. The structure of marketable products of these enterprises consists of 71.7% of crop products and 28.3% of livestock products.

Table 2. Influence of resource equipment of 100 hectares of agricultural land on the profitability level of agricultural enterprises of Ukraine. *(Source: own calculations [13])*

Group	Quantity of enterprises in the group	Resource equipment of 100 hectares of agricultural land, thousand UAH	The average level of profitability, %	Net income by industry, %	
				Plant growing	Livestock
1	28	from 1 up to 20	13.91	49.5	50.5
2	58	from 20 up to 50	24.46	71.7	28.3
3	53	from 50 up to 80	28.39	88.6	11.4
4	16	from 80 up to 100	26.40	95.3	4.7
5	29	over 100	44.36	85.2	14.8

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The next largest group of agricultural enterprises (53 economic entities), represented by farms that use from 50 to 80 thousand UAH resource base per 100 hectares of agricultural land, are more profitable compared to the previous group and have a profitability of 28.4%. The structure of marketable products of these enterprises consists of 88.6% of crop products and 11.4% of livestock products, there is a noticeable trend of change in the structure of marketable products in the direction of increasing plant growing and reducing livestock products.

The fourth group includes the smallest number of enterprises (16) that use from 80 to 100 thousand UAH resource base per 100 hectares of agricultural land. In this group, the profitability decreases by 2% compared to the enterprises of the previous, third group, and represents 26.40%. Therefore, the level of resource equipment should be considered 80 thousand UAH per 100 hectares of the efficiency limit after which the return per unit of invested resources decreases with the existing specialization of production. The structure of marketable products is also changing, the share of crop production increases to 95%.

The fifth group unites 29 enterprises, where the level of resource equipment is more than 100 thousand UAH per 100 hectares of agricultural land. Profitability in this group is a maximum of 44.36%. The structure of marketable products in the group includes 85.2% of crop products and 14.8% of livestock products. The highest level of profitability indicates that such a structure is highly efficient and profitable at this level of resource.

In order to promote the reproduction and development of the production potential of the agro-industrial complex at a qualitatively new scientific and technical level, corresponding to the conditions of modern agricultural production technologies, a modern Comprehensive State Program for the Reform and Development of the Agricultural Economy of Ukraine should be developed [6]. It stipulates the main directions of state support for agriculture and the development of an effective market for material and technical resources. The success of this program, aimed at increasing the gross production of agricultural products and increasing its competitiveness, is directly dependent on the level of technical equipment of enterprises. In the field of crop production, with the existing cost structure, enterprises are forced to reduce depreciation deductions, as a result of which equipment is morally and physically worn out and there are no resources for its reproduction [8].

In the pig industry and dairy cattle breeding, the inability to attract sufficient investment resources for the capital construction of fattening farms does not provide an opportunity to increase the pace of production.

The economic efficiency of the management of agricultural enterprises directly depends on an effective investment policy, which is the basis for the development of the modern scientific and technical basis of production and largely determines competitiveness in the conditions of a market economy.

Crisis phenomena in the economy in recent years did not contribute to the development of investment activity in Ukraine, therefore, the analysis and research of factors that have a significant impact on the formation of the general investment attractiveness of a business entity is an important goal for real changes in the economy, primarily in agriculture.

Investment funds are the basis for the process of extended reproduction of the fixed capital of enterprises, capital investments, therefore, proper financing and the search for their additional sources is a significant problem at the current stage of the development of the domestic economy.

The main factor for ensuring the profitability of agricultural products in the difficult conditions of the competitive market is the establishment of effective cost control, a powerful element of which is the costs associated with the functioning and restoration of fixed capital [6, 8, 12].

DISCUSSION

In modern concepts, there is also no unambiguous definition of the resource base, methods of its accumulation and optimal use. The most general opinions on this matter are the accumulated (cumulative) amount of goods, property, and assets used for profit in business [2, 6].

Among the more specific definitions of the efficiency of the resource base, financial as ownership of assets and economic as one of the three main factors of production, represented by all the means of production that are created by people in order to carry out the production process with their help, are distinguished. The resource base is presented as an external manifestation and expression of production relations and it is noted that it should be considered without separating the material composition from the social form, that is, relations between all participants of the business process [3]. The state of the resource base and its effective use directly affect the final results of the enterprise's economic activity and contribute to the improvement of all its economic indicators, in particular: labour productivity, return on capital, production volumes,

cost price, return on capital investments [7]. Since the resource base is used to ensure that additional production is obtained through the organization of more advanced productions, it means that it has a net productivity [4, 6]. Therefore, they offer a methodology for calculating the annual percentage income that can be obtained by investing money in one or another project [10]. But we agree with the opinion that the essence of the problem of increasing production efficiency lies in the increase in the process of using available resources, economic results for each unit of costs. Increasing economic efficiency is one of the central problems of the economy [8]. There is no other way to successfully solve various economic and social problems, except for the constant search and formation of a collection of alternative methods of increasing the efficiency of economic activity that actually work in practice. We consider the limitation of the obtained results of this study to be their subjectivity in relation to the application to subjects with a narrow agrarian specialization, which has a seasonal nature and a significant dependence on factors of external natural influence (climatic conditions, natural phenomena). But for a narrow range of applications, this technique can serve as a useful model.

CONCLUSIONS

According to the study, it must be concluded that between the indicators of resource equipment and profitability, there is a direct relationship, with the growth of the resource base used, the profit received by enterprises also increases. However, the amount of investment has its limits of efficiency, after which the return on borrowed resources decreases. Resource efficiency is also closely linked to specialization. Changing the structure of marketable products to only crop specialization reduces the return on additional resources invested in the resource base. It is assumed that the efficiency of capital use is influenced not only by specialization but its level. Mono-branch type of enterprises with crop specialization uses invested resources less efficiently, and resource equipment of 100 hectares of agricultural lands at the level of100 thousand UAH and more with the structure of marketable products of 85.2% plant growing and 14.8% livestock brings the greatest effect (level of profitability 44.36%).

Adaptation of the size of the resource base to modern economic conditions will ensure its rational use and reproduction in accordance with the peculiarities of agricultural production. Therefore, it is important to analyze the change in the return of the resource base for the period in the dynamics, as the main criterion for the feasibility of attracting additional capital.

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АДАПТАЦІЙНЕ МОДЕЛЮВАННЯ РОЗМІРУ РЕСУРСНОГО БАЗИСУ ЯК ЗАХІД УПРАВЛІННЯ ЕФЕКТИВНІСТЮ ДІЯЛЬНОСТІ СІЛЬСЬКОГОСПОДАРСЬКИХ ПІДПРИЄМСТВ

Трансформаційні процеси, які відбуваються в сучасній економіці, ведуть до перебудови сільськогосподарського виробництва на новій технологічній та соціально-економічній основі, що вимагає формування більш раціонального механізму господарювання, однією з найважливіших складових якого є ресурсний базис. Установлено, що питання необхідності залучення додаткових коштів для відтворення основного капіталу стає актуальним для сільгоспвиробників тому, що необґрунтоване нарощування вартості веде до зростання собівартості виробництва, зменшує величину кінцевих результатів діяльності. Собівартість реалізації є резервом отримання додаткового доходу, який можна отримати за рахунок збільшення ціни реалізації. Визначено, що головними джерелами формування основного капіталу є власні джерела, тому доцільним є пошук резервів підвищення прибутковості діяльності як основи для здійснення процесу розширеного відтворення основного капіталу. Проаналізовано в динаміці зміну віддачі ресурсного базису за період, що є основним критерієм для ухвалення рішення про доцільність залучення додаткового капіталу як основи ресурсного базису. Доведено, що між показниками ресурсооснащеності та прибутковістю існує пряма залежність: зі зростанням обсягу ресурсного базису, що використовується, зростає й прибуток, який отримують підприємства. Обґрунтовано, що ефективність використання ресурсного базису тісно пов'язана зі спеціалізацією та її рівнем, причому зміна структури товарної продукції до лише рослинницької спеціалізації зменшує віддачу від додаткових укладень у ресурсний базис. За допомогою методів математичної статистики обґрунтована наявність взаємозв'язку між показником фондооснащеності 100 га сільськогосподарських угідь та прибутковістю зі 100 га сільськогосподарських угідь у розрізі підприємств різної спеціалізації. Побудовані моделі за видами групувань за спеціалізацією можуть бути використані як додатковий чинник при прогнозуванні та плануванні виробничого плану, а також формуванні підприємством структури товарної продукції.

Ключові слова: ресурсний потенціал, управління, ефективність, спеціалізація, моделювання, капітал

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