FORECASTING THE COMPETITIVE STATUS OF AN AGRICULTURAL ENTERPRISE

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Competitiveness and competitive advantages are key factors that shape the competitive status of enterprises. Agreeing with scientists, we believe that the competitive status of an enterprise is the final result of the interaction of competitiveness and competitive advantages, which reflects the level of success of the enterprise in the market at a specific point in time.

Gerasimova V.O., Rezanov E.O., believe that the competitive status of an enterprise is a complex characteristic of an enterprise, which is formed on the basis of an analysis of its competitiveness, market position and ability to resist competitors [7].

At the same time, competitiveness is the foundation for maintaining and improving the competitive status of an enterprise, as it allows it to effectively confront competitors and achieve its goals.

The widespread use of the term "competitiveness" in business creates a variety of its interpretations. This is due to the fact that it is applied to different levels from companies to states. The ability of an enterprise to survive and thrive in a competitive environment directly depends on its competitiveness. Competitiveness reflects the level of viability of the enterprise and its potential for growth in the market. To ensure stable economic development, it is necessary to constantly work on increasing the competitiveness of national enterprises, because it is the key to their success and the well-being of the country.

Thus, competitiveness is understood as the ability of an enterprise not only to respond to market challenges, but also to anticipate them, creating new competitive advantages and ensuring long-term success [2]. In our opinion, the competitiveness of an enterprise is the ability of a company to successfully confront its competitors in the market and ensure sustainable development. This is a complex characteristic that reflects how well an enterprise satisfies consumer needs, effectively uses resources and adapts to changes in the external environment [20]. Based on the above, competitive advantages are indicators of an enterprise's efficiency in various areas of activity that allow it to bypass competitors.

T. Peteri and B. Waterman identified several key principles that help companies achieve success. Among them: involving each employee in business development, close relationships with customers, creating favorable working conditions, increasing productivity through a positive atmosphere, perseverance, minimalism in management and control over all processes. The concept of "competitive advantages" is not static, but dynamically changes under the influence of such factors as the development of economic science, technological innovations and changes in the organization of production (Table 1). To summarize the above, we can say that competitive advantage lies in the ability of an enterprise to secure more favorable conditions for the acquisition of resources and to use them more effectively in its activities. Let's look at some of the key changes that are taking place in the components of this concept: the shift in focus from products to customer experience, the role of technology, the growing importance of social responsibility, the development of partnerships and ecosystems, and changes in consumer behavior.

Table 1. *Formation and change of understanding of "competitive advantages of the enterprise" in the history of economic thought*

Name of scientist, school	Definition	Justification
J.-J. Lambin [13]	Functional features of the product	Competitive advantage can be associated with various factors: product features, additional services, production technologies, marketing strategies, etc. It is important to understand that advantage is determined relative to competitors and is what distinguishes a company in the market.
M. Porter [13]	Depending on the organizational structure of production chosen	The way to maintain and strengthen competitive advantages lies through cost optimization and increasing the perceived value of the product, which allows setting higher prices (differentiation strategy)
E. Heckscher and B. Ohlin [13]	Thanks to a greater number of resources than competitors, the company has the opportunity to achieve competitive advantages.	
Kucher A. [11]	Exceptional characteristics give the enterprise a competitive advantage.	
Sitkovska A.O. [18]	The interaction of different competitive advantages creates synergy that enhances the overall competitiveness of the enterprise.	When shaping its competitiveness, an enterprise should focus on studying the factors that most affect its results and cause changes in its activities.

**Source: compiled by the author[13], [11], [18]*

Table 2. *Gradual changes in the components that form the concept of "competitive advantage"*

Ingredients	Authors												
	A. Smith	D. Ricardo	A. Marshall	A. Oicher	A. Alchinyan,	I. Kirzner	P. Drucker	M. Porter,	J. Walter	K. Trabolt	D. Moore	A. Brander burger A. Oicher	A. Oicher
Costs	+	+	+										
Scale of activity			+	+									
Production components					+								
Environmental influences						+							
Business qualities							+						
Human potential								+					+
High resource efficiency									+	+	+		
Intellectual potential												+	+
Deadline for providing a definition	18th century	19th century		20th century						21st century			
				beginning		middle		end					

**Source: compiled by the author[13]*

Competitive advantage is no longer limited to low prices or the highest quality of the product. Today, a company's success depends on its ability to adapt to change, create unique value for customers, build long-term relationships and act responsibly.

Nevertheless, the definition of competitive advantage depends on the sources of its formation (production method, sales system, uniqueness of the product or brand, etc.). Analysis of the scientific literature indicates a significant variety of approaches to understanding this phenomenon, which allows classifying scientific views according to the areas presented in Table 3. Competitive advantages of the enterprise are the result of the interaction of internal resources and external conditions in which it operates. It is the combination of these factors that allows the company to achieve leadership in the market. The approaches to the formation of competitive advantages presented in Table 3 are important, but to achieve sustainable competitive positions it is necessary to consider them in a complex. The integration approach will allow to combine these approaches into a single system, which will provide a synergistic effect and allow the company to more effectively confront competitors.

Table 3. *Ordering the theories about what makes a company more successful than its competitors*

Approach	Requirements	Sources of formation
Resource-consuming	Reasonable prices	Resource provision and production efficiency
Qualitative	Improving the characteristics that determine product quality	Continuous quality improvement
Adaptive and innovative	Constantly creating new, unique offers for customers	Adaptability, flexibility, innovation
Values and competence-oriented	Ability to work effectively in any business area	A product that meets the individual needs of each buyer.

**Source: compiled by the author [13]*

While studying the concept of "competitive advantages", we noticed differences in its understanding by different authors. This indicates that the sources of competitive advantages are diverse, so they need to be developed using different scientific approaches. There are different approaches to creating competitive advantages, such as resource-cost, quality, and others. But the best results are obtained by an integrated approach, which allows you to combine all these approaches and create comprehensive protection against competitors. Having determined its competitive advantages, an enterprise can more rationally allocate resources, focusing on those areas of activity where it has the greatest chances of success in both the short and long term. Sources of internal competitive advantages lie in the features of the internal activities of the enterprise. These can be factors such as the efficiency of resource use, a high level of personnel qualification, innovative technologies and the implementation of modern management systems (Table 4).

These include: production direction, technological and qualification direction, organizational and managerial direction.The external competitive advantages of an enterprise are manifested in its ability to provide consumers with greater value than competitors, while achieving higher financial results through effective cost management (Table 5). The escalation of competition in both domestic and foreign markets requires enterprises to constantly search for new sources of competitive advantages, which is a determining factor in their market position. The conditions of a post-industrial society dictate to enterprises the need to rethink their strategies and focus on developing internal potential in order to maintain competitiveness in conditions of high instability.

Table 4. *Typification of internal competitive advantages and their sources of formation*

Competitive advantages	Content	Source of formation (components of production potential)
Production direction	Effective cost management, increased labor productivity, rational use of fixed assets, ensuring uninterrupted operation through timely supply of material and technical resources	Production, technological, personnel, financial, organizational, managerial
Technological direction	Flexibility of technological processes, modernity, perfection, use of achievements of scientific and technological progress	Innovation, investment, personnel, organizational, management
Qualification direction	The availability of the necessary knowledge, skills and abilities among the personnel, as well as the ability to self-develop and adapt to changes.	Personnel
Organizational direction	Dynamic organizational structure, able to quickly adapt to changes in the external environment	Organizational, managerial
Management direction	High level of efficiency of all company business processes, including staff motivation, working capital management, management system and product quality	Organizational, managerial
Innovative direction	Systematic development and implementation of new technologies, products and services	Innovative, investment, human resources
Consequential direction	Customs, business ethics, development path, etc.	Conjunctive
Economic direction	Solvency, availability of financing sources, liquidity, profitability, profitability	Financial
Geographical direction	How closely the company is connected to suppliers and how this affects its operations	Infrastructure

**Source: compiled by the author [13]*

Table 5. *Typification of internal competitive advantages and their sources of formation*

Competitive advantages	**Content**	**Source of formation (components of production potential)**
Informational direction	The effectiveness of data collection and analysis systems, as well as the depth of understanding of the marketing environment, consumer behavior and competitor actions are critical factors for the success of the enterprise.	Organizational, managerial, personnel, market
Constructive direction	This option emphasizes both the visual appeal (design, packaging) and the technical characteristics of the product.	Production, technological, financial, personnel
Quality	Product quality rating among consumers	Production, technological, financial, personnel, market
Behavioral direction	The degree of orientation of the company's activities towards specific market segments	Market, personnel, organizational, managerial
Conjunctural direction	Competitive landscape	Conjunctive
Service direction	Quality of service	Organizational, managerial, financial personnel
Image direction	Company reputation in the market	Market, opportunistic
Price direction	The influence of the enterprise on the formation of prices in the market	Market, conjunctural, organizational, managerial
Sales direction	Sales channels	Market, opportunistic
Communication direction	Product availability for consumers	Market, opportunistic

**Source: generated by the author*

Despite the general recognition of the importance of competitive advantages, the scientific community has not yet reached a consensus on their essence and mechanisms of formation.

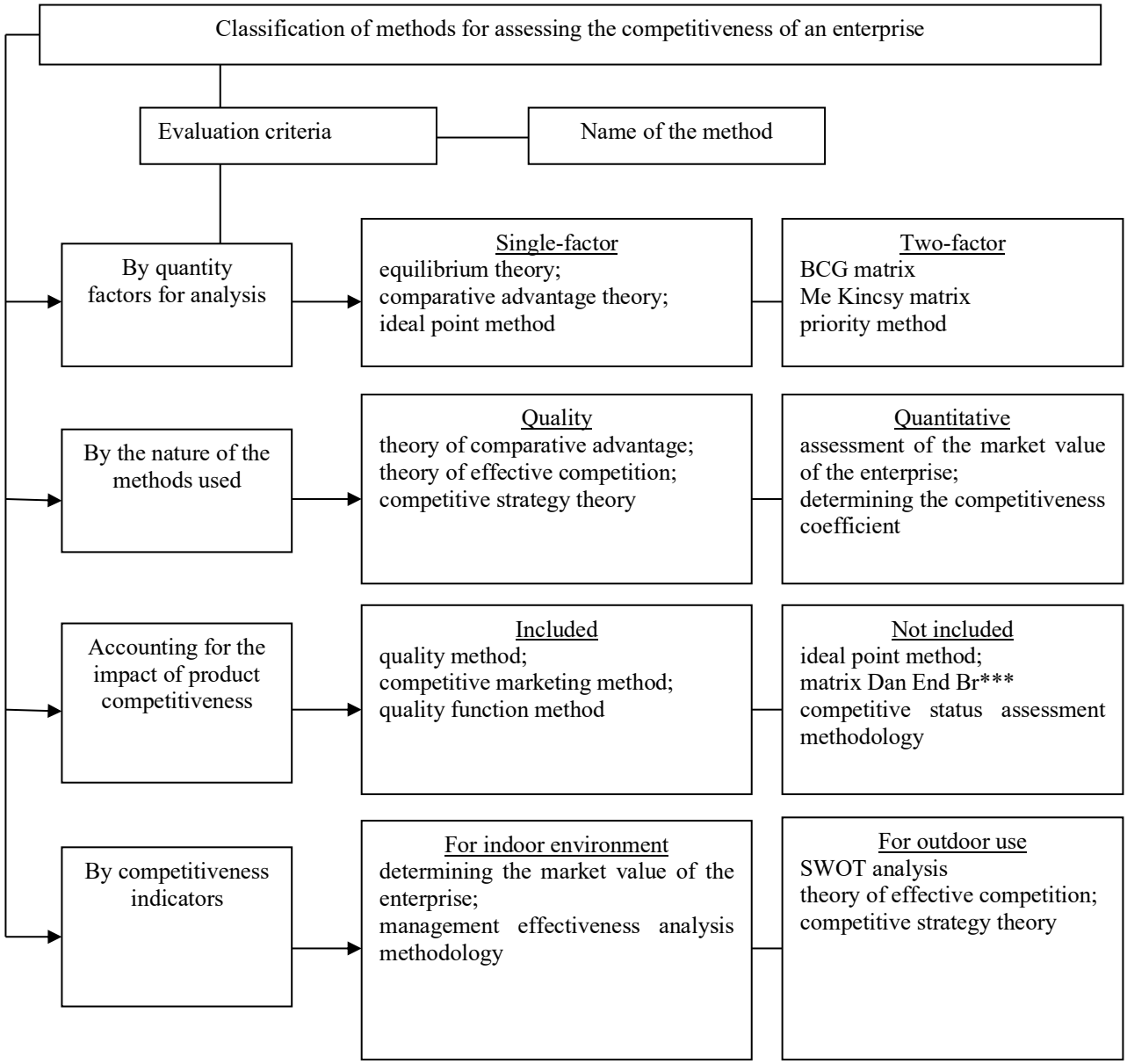

Fig. 1. *Methods for assessing the competitiveness of an enterprise*
**Source: generated by the author*

Thus, the key competitive advantages of domestic enterprises in modern conditions include: the effectiveness of a competitive advantage depends on h ow well it corresponds to the characteristics of a particular market and the actions of competitors; the competitive advantages of an enterprise become unique through the use of rare resources and specific competencies that are difficult for others to reproduce; the sustainability of a competitive advantage lies in its difficulty in copying. In other words, it is extremely difficult, and often impossible, to replicate or adapt the unique capabilities of one enterprise for another. Therefore, competitive advantages form a unique profile of an enterprise in the market, allowing it to offer consumers something special that competitors do not have.

Having analyzed the external and internal competitive advantages of domestic enterprises, we concluded that they can be classified according to the following criteria:conditions of formation; sphere of formation; sources of formation and possibility of imitation; term of validity; place of

formation; result of realization of advantage. It is also worth noting that businesses need to assess how easily their competitive advantages can be copied by competitors. The use of cheap labor or access to raw materials are temporary competitive advantages that do not guarantee a stable position of the enterprise in the market, as they are easily copied by competitors. Mid-level competitive advantages, such as patented technologies, specialized personnel training programs and a strong reputation, are the result of significant investments and are difficult for competitors to imitate.

The highest level of competitive advantage involves continuous improvement of production and all aspects of the business. Thanks to this, the company not only achieves leadership positions, but also maintains them for a long time. No less important than the nature of a competitive advantage is its multifaceted nature. The more different sources underlie an advantage, the more difficult it is for competitors to copy it.

Competitive advantages of the highest level are not limited to the creation of new products, but also involve the development of meta-competences, such as the ability to learn, communication and customer orientation, which allow the enterprise to independently generate new competitive advantages. To strengthen its competitive position, agricultural enterprises can use such tools as diversification of production, innovation and improvement of the management system. To significantly improve the management of the competitiveness of the enterprise, innovative approaches are needed that complement traditional methods of competitive analysis.

Table 6. *Formulation of objectives and performance indicators for competitiveness analysis.*

Stage	Goal	Expected result
1	Analysis of the competitiveness of the enterprise	Identification of the company's competitive advantages
2	Comprehensive assessment of the company's competitive advantages	Identification and quantification of hidden factors affecting the competitive ability of an enterprise
3	Market segmentation by the level of competitiveness of enterprises	Enterprise competitiveness assessment scale
4	Validation of the enterprise classification scheme	Deconstructing competitor clusters based on deep learning algorithms
5	Competitive potential assessment	Determining the competitive position of the enterprise
6	Quantitative assessment of factors that shape competitive advantage	Quantitative assessment of the importance of each factor in achieving enterprise results

**Source: generated by the author*

To identify and assess the impact of various factors on the level of competitiveness of an enterprise, factor analysis is used, which is carried out after calculating the overall competitiveness indicator. Collecting raw data is the most difficult stage of assessing competitive advantages, as it requires careful selection of indicators and processing of large amounts of information. To conduct a comprehensive assessment of an enterprise's competitiveness, we recommend using the technologies described in Table 6.

The analysis shows that in order for agricultural enterprises to successfully compete in the market, it is necessary to clearly identify their strengths and opportunities, as well as take into account external factors. The key point is to ensure the efficient production of products that meet the needs of consumers. By optimizing the use of resources and finding new opportunities for their expansion, agricultural enterprises can significantly strengthen their competitive position. An assessment of these advantages is necessary for developing a development strategy that will allow the farm not only to survive in the market, but also to achieve sustainable growth in the long term.

Given the specifics of agricultural enterprises, the most effective strategy for them is to reduce costs. This involves constant analysis and optimization of all cost items in order to ensure uninterrupted production and achieve maximum efficiency. The desire of small and medium-sized agricultural producers to reduce costs often leads to the rejection of modern technologies. This, in turn, reduces production efficiency and does not allow creating a sustainable competitive advantage. Although such savings can temporarily reduce the cost of production, it is not a long-term strategy.

The strategy of setting high prices for products requires the company to invest significantly in ensuring high quality and an effective sales system. Only a small number of companies are able to implement such a strategy in practice.

It is through strengthening competitiveness that Ukrainian agricultural enterprises can significantly influence global food security. An equally important concept that determines the success of an enterprise in the market is competitive position. The competitive position of an enterprise is the result of comparing the enterprise with its competitors, which allows you to determine its strengths and weaknesses and assess its position in the market, that is, it is the place of the enterprise in the market relative to its competitors.

Table 7. *The role of competitiveness theory in the formation of competitive status*

Interrelationship of concepts	Content	Status
Competitiveness	This is the ability of a company to successfully compete with competitors and occupy a leading position in the market thanks to its products and services.	Self-sufficient concept
Competitive status	This is the result of the effective use of the enterprise's competitive potential and the achievement of competitive advantages.	Self-sufficient concept
Competitive position	This is the place that a company occupies in the market relative to its competitors as a result of implementing its strategy.	Self-sufficient concept
Competitive strategy	This is a clear action plan designed to achieve market leadership through the effective use of the company's resources and strengths.	Internal resource potential of the enterprise
Competition policy	This is the path to uniqueness that allows you to stand out among your competitors.	Strengthening competitive status
External competitive advantages	it's what the customer sees and feels, it's what differentiates your company from your competitors and makes your products or services attractive.	Competitive potential is a set of resources, knowledge, and capabilities that a company can use to achieve market leadership in the future.
External competitive advantages	focuses on hidden opportunities and reserves for growth.	

**Source: generated by the author*

The study showed that the competitive status of an enterprise directly depends on its ability to effectively use available resources and achieve competitive advantages in the market. Understanding the competitive status of an enterprise is key to its successful functioning. After all, the competitive status not only reflects the current situation, but also allows you to predict future changes and develop strategies to strengthen your market position. The issue of assessing competitive status is especially relevant in conditions of limited resources, when each decision must be as well-founded as possible.

As can be seen from Figure 3.1, the efficiency of resource use directly affects the final results of the enterprise. It is important to understand that different resources have different effects on

economic results, since they differ in their specificity and irreplaceability. In addition, the ratio of resources at different enterprises can differ significantly, which leads to different economic results. Changes in the quantity and quality of resources inevitably affect the economic performance of the enterprise.

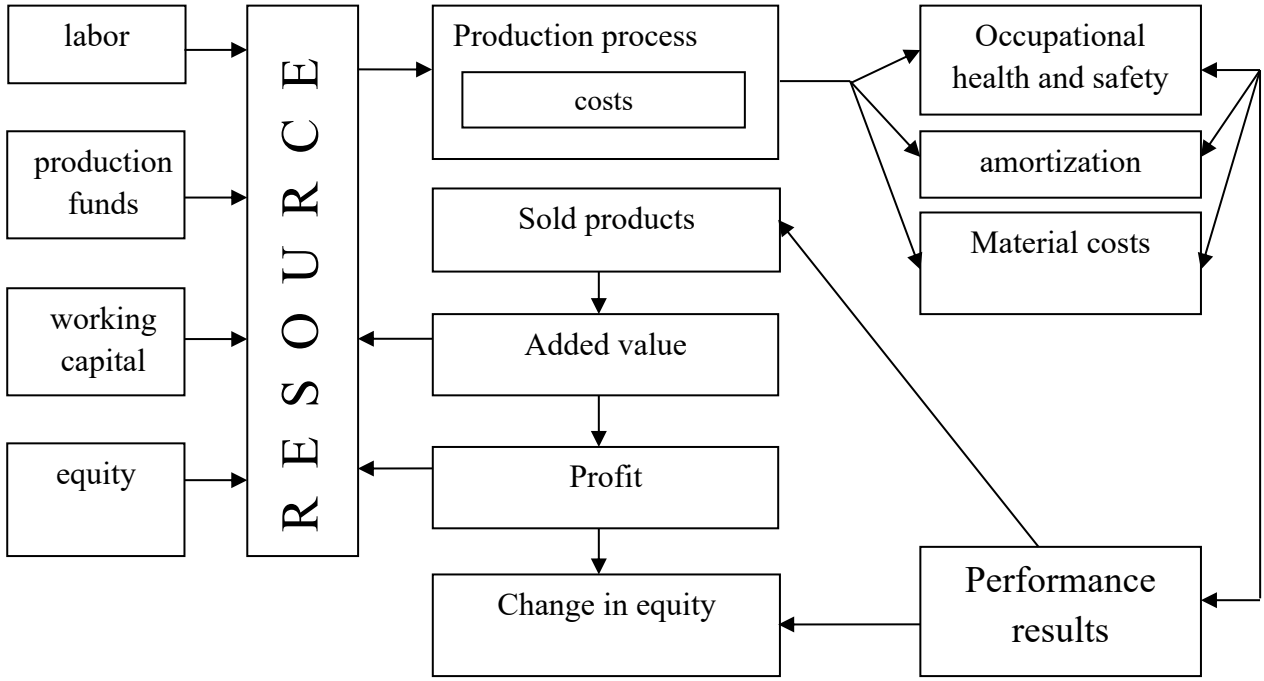

Fig. 2. *The relationship "resources - costs - result"*
**Source: developed by the author*

Not all Ukrainian agricultural enterprises are ready for tough competition. Even those that produce quality products often cannot successfully sell them due to the lack of experience and the necessary tools: effective pricing, employee motivation, and creating a positive image. Under such conditions, it is extremely difficult for an enterprise to determine its place in the market and its real opportunities for effective competition. Competitive position is determined on the basis of quantitative indicators and statistical data.

Therefore, agricultural enterprises should focus on increasing production and sales volumes, reducing costs, effectively using resources, and optimizing financial flows to increase profitability and profitability of their activities. To increase profitability, it is necessary to develop a strategy that involves focusing on highly profitable crops, actively using marketing tools, and optimizing production processes.

High production costs and low product prices are the main factors leading to losses in agriculture. Since market prices are formed under the influence of supply and demand, which an individual enterprise has practically no influence on, the only way to increase profits is to reduce production costs.

The efficiency of an agricultural enterprise is directly related to the rational use of resources. This is manifested in the ability to make a profit, increase labor productivity and minimize costs. As we have already noted, agricultural enterprises, regardless of the form of ownership, operate in conditions of limited resources and unlimited needs. That is why the efficient use of available resources is a key task for ensuring sustainable development.

According to the data in Table 8, the main part of the resource potential of agricultural enterprises in Sumy region is agricultural land. Their value directly depends on the income of the enterprise and the market price of land.

Resource intensity and resource output are indicators that characterize how efficiently we use resources to produce products and services. Resource intensity shows how many resources we need to spend to get a certain result. And resource output is, on the contrary, how much result we get from a unit of resource. These indicators depend on many factors, such as technology, production organization, natural conditions and the economic situation.

The development of livestock farming plays a key role in increasing the efficiency of resource use in agriculture. The optimal ratio of livestock farming and crop production allows achieving a synergistic effect. Only an enterprise that comprehensively approaches the use of resources, taking into account economic conditions and market realities, will be able to achieve success. To maximize the use of resources of agricultural enterprises, it is necessary to create a management system that takes into account both internal and external factors and ensures the comprehensive use of all available resources. Land is a key resource in agriculture, and its productivity directly depends on factors such as liming and pest control. Reducing these measures negatively affects the condition of the land and, as a result, the entire resource potential. The quality of the land, namely its quality, is the main indicator of productivity and determines the resource potential of the territory.

Table 8. *Determination of the monetary value of the resource potential of the agricultural sector of Sumy region*

Indicators	Years			
	2020	2021	2022	2022 in % to 2020
Production output, million UAH.	17610	19860	28127	164.0
Area of agricultural land, thousand hectares	1704	1703	1702	99.8
Monetary valuation of 1 ha, UAH of agricultural land	17824.6	19824.6	27824.6	155.0
Monetary valuation of land resources, million UAH.	30373	30355	30338	99.8
Rent, million UAH.	3037	3036	3034	99.9
Depreciation, UAH million	0.698	0.809	1.5	2.1p
Average annual cost of current assets, UAH million.	7816	9524	14357	183.0
Average number of employees, people	18556	17402	17509	94.3
Average annual salary of one employee, thousand UAH	81.6	87.4	117.6	144.0
Labor potential, million UAH.	388	374	382	98.4
Estimated annual resource potential, million UAH.	43578	53254	65077	149.0
Resource potential per 1 hectare of agricultural land, thousand UAH.	25.6	31.3	38.2	149.0
Structure of resource potential, %:	100.0	100.0	100.0	-
agricultural land	90.4	91.3	86.5	-
fixed assets	0.01	0.01	0.01	-
working capital	8.4	7.6	12.4	-
labor resources	1.2	1.1	1.1	-
Resource return, UAH	4.41	4.23	4.32	98.0
Resource intensity, UAH	0.23	0.24	0.23	100.0

**Source: calculated by the author*

We developed a model that allowed us to assess the resource potential of each climatic zone of Sumy region and distribute the territory by the level of its use. Data analysis showed that the following factors have the greatest influence on the volume of gross output per 1 hectare: capital availability (X1), availability of labor resources (X2) and soil quality (X3). To calculate the gross volume of gross output per 1 hectare of agricultural land, the formula will look like this:

$$Y= f(X1,X2,X3) \quad (1)$$

To determine the specific form of equation (3.1), we used the multiple regression method, taking into account three main factors. The data that formed the basis for building the model were formed as follows:

1. We will divide all data into three groups according to natural zones: Forest-steppe, Transitional zone, and Polissya.
2. Statistical data covers the period from 2020 to 2022.
3. The amount of data for each zone is determined individually.
4. To build the correlation model, a certain algorithm was used, which involved the use of matrix operations and data analysis tools in Excel 2007.

We built a linear model that describes how the actual volume of gross output per hectare of agricultural land(Ui), UAH;depends on the following factors: capital availability, availability of labor resourcesper 1 ha per person/ha (X2)and soil qualityscore (X3). The formula has the following form.

$$Y=b0+b1\ X1+\ b2\ X2+\ b3\ X3 \quad (2)$$

We use the matrix method to solve a system of equations. We write the coefficients of the equations in the form of a matrix, and then, by finding the inverse of the matrix, we determine the values of the unknowns.

First zone - Forest-steppe: b0=3.5183; b1=0.0531; b2=2.8588; b3=14.8770

Second zone - Transitional: b0=562.0341; b1=0.6696; b2=-2.4025; b3=17.6108

Third zone - Polissya: b0=2050.4267; b1=-0.6360; b2,= 2.0760; b3=-57.0921

Analysis of the model for the first climatic zone shows that each increase in capital stock by one unit (with other factors held constant) leads to an increase (decrease) in gross output by 0.1 unit.

An increase in the number of workers by one unit (with constant capital and soil quality) will lead to an increase (decrease) in gross output by 2.9 units. An increase in soil quality by one point (with other factors constant) will increase (decrease) gross output by 14.9 units. If all factors are equal to zero, then the minimum value of gross output for the first zone is 3.5 units. Analyzing the model for the second climatic zone, we see that an increase in capital stock by one unit (with other factors remaining constant) leads to an increase (decrease) in gross output by 0.7 units. An increase in the number of employees by one unit (with other factors remaining constant) leads to a decrease in gross output by 2.4 units. An increase in soil quality by one point (with other factors remaining constant) increases (decreases) gross output by 17.6 units. If all factors are equal to zero, then losses of 562.03 units are observed.

Analysis of the model for the third climatic zone shows that an increase in capital adequacy by one unit (other factors remaining constant) leads to a decrease in gross output by 0.64 units. That is, in this zone, an increase in capital investment, paradoxically, leads to a decrease in results.

The model analysis shows that an increase in the number of workers by one unit (other things being equal) leads to an increase (decrease) in gross output by 2.1 units. An increase in soil quality by one point (other things being equal) on the contrary reduces gross output by 57.1 units.

Verification of the adequacy of the constructed regression model using the Fisher criterion (at a significance level of 0.05) showed its high accuracy for all three zones. The calculated value of the F-statistic exceeds the critical value, which indicates the adequacy of the model to the observational data.

For Zone 1: There is a very strong positive relationship between the variables under study ($r = 0.9679$). The coefficient of determination ($R^2 = 0.9368$) indicates that almost 94% of the variance in the dependent variable is explained by changes in the independent variable.

For Zone 2: There is a moderate positive relationship between the studied variables ($r = 0.6991$). The coefficient of determination ($R^2 = 0.9587$) indicates that almost 96% of the variance in the dependent variable is explained by changes in the independent variable.

A comparative analysis of the resource potential of agricultural enterprises in different climatic zones of the region revealed a general pattern: the dominant factor is land availability. However, there are certain differences in the specific weight of other components. In particular, in the 1st and 3rd zones, soil quality is additionally taken into account, which has a certain impact on resource potential.

Table 8. *Regional analysis of the resource potential of agricultural enterprises in Sumy region, taking into account climatic features*

Heaven	Districts	Resource potential assessment model	Limitation models	coefficient of determination R2
Zone 1 - Forest-steppe	Okhtyrskyi Bilopolskyi Burynskyi V.Pysarivskyi **Romensky** Konotopsky Krasnopilsky Trostyanetsky Lebedynsky L. Dolynsky Nedryhaylivskyi Sumy	Y=3.5183+0.0531x1+2.8588x2+14.8770x3	*xj>0* j= 1,2,3	0.93678925
2 transition zone	Glukhivskyi Putyvlskyi Krolevetsky	Y = -562.03+0.669x1-2.403x2+17.611x3	*xj>0* j = 1,2,3	0.48869172
Zone 3 Polissya	S. Budsky Shostinsky Yampilsky	Y = 2050.43-0.6360x1+2.076x2-57.09x3	*xj>0* j = 1,2,3	0.81423433

** Source: calculated by the author*

In general, for Sumy region, the greatest influence on resource potential is land availability (91.8%) and capital availability (7.0%). The lack of working capital reduces the efficiency of fixed assets. The least influential factor is the availability of labor resources due to the outflow of labor from the countryside.

The conducted studies have shown that the level of resource potential of agricultural enterprises in the Sumy region directly affects production volumes. Changes in resource availability lead to corresponding changes in production indicators.

Analysis of the activities of agricultural enterprises shows that there is a significant reserve for increasing production volumes. Despite this, achieving 100% efficiency is unlikely, since production processes are influenced by many factors, including organizational, technological, economic and environmental. The quality of the resource potential of the enterprise is determined by the interaction of these factors at different stages of the production cycle. Sumy region has the potential to export sugar beets, grain, berries, long flax, hemp, potatoes, varietal seeds, and livestock products (breeding cattle, meat, milk).

To achieve the set goals, it is necessary to: update the material and technical base of enterprises, improve the qualifications of specialists, improve soil fertility, and involve industrial enterprises in the modernization of agricultural production.

The analysis conducted using the Student's t-test allowed us to identify 8 key factors that affect the competitiveness of the enterprise. The following indicators were used to assess competitiveness: sales growth rates, profitability, profitability, financial stability and labor productivity. Based on the data obtained, we were able to build a predictive model.

Table 9. *Evaluation scale for determining competitiveness*

Value	Content of competitive advantage
KPP ≤ 0	Absolute lack of advantage
0 < KPp < 0.25	Critical advantage
0 ≤ KPp < 0.5	Unsustainable advantage
0.5 ≤ KPp < 0.75	Sufficiently sustainable advantage
0.75 ≤ KPp < 1.0	A sustainable advantage in the long term
KPP = 1.0	Absolutely sustainable advantage

**Source: (19)*

The process of expert assessment of competitive position, the results of which are given values from 0 to 1, includes several stages. First, the research task is formulated, experts are selected and trained. Then a survey is conducted, and the obtained data is processed and analyzed. The effectiveness of such a study depends on the correctness of each of these stages.

Increasing the competitiveness of the agricultural sector depends on how successfully farms can secure competitive advantages. The proposed scale will help enterprises assess their positions and develop effective development strategies.

The data in Table 10 show the following: according to the proposed and substantiated model of resource efficiency, three indicators were identified by which the efficiency of using individual competitive advantages can be analyzed: the use of land resources, labor resources and fixed assets of the enterprise. These indicators were chosen: capital availability, labor resources availability, soil quality - as an indicator characterizing the quality of soils.

Table 10. *Effectiveness of competitive advantages in predicting the competitive status of LLC "Zerne"*

Indicators	Funding availability	Availability of labor resourcesper 1 ha person/ha	Soil quality, score
Increase according to the methodology,%	100.0%	0.02	43.0
Net income from product sales, UAH million	235.0		
Increase according to the methodology,%	1.0	10,%	43.0
Net income from product sales, UAH million	620.6		
Increase according to the methodology,%	1.0	0.02	100.0%
Net income from product sales, UAH million	749.0		
Competitiveness coefficient	0.45		

**Source: generated by the author*

According to the proposed model, we will alternately change one of the indicators, the other two will remain unchanged. Thus, with an increase in the return on assets by 100%, net income from sales of products will increase by 10% and will amount to 235 million UAH. With an increase in the indicator of labor resources by 10%, net income from sales of products will increase by 2.9 times and will amount to 620.6 million UAH. With an increase in the soil quality indicator by 100%, net income from sales of products will increase by 3.5 times and will amount to 749 million UAH. According to the results of calculating the competitiveness coefficient, it is possible to determine the competitive status of the enterprise for 2024, which is assessed as unstable.

Implementing new or existing competitive advantages may face a number of obstacles, such as: shortage of skilled personnel, limited resources, high technology costs, fierce competition, ethical dilemmas, and legislative restrictions.Competitive advantage is applied only if the enterprise has the necessary resources and capabilities. Analysis of the data in Table 3.6 shows that the total resources of agricultural enterprises in Sumy region in 2020 are estimated at over 21 billion hryvnias. The structure of these resources demonstrates a significant dependence on land resources, the share of which is 77.8%. Labor resources take second place (10.7%), and fixed assets - third (11.4%). Working livestock has the smallest share (1%). This trend is observed in all categories of agricultural enterprises in the region.

Table 11. *Determination of the total volume of resources involved in agriculture in Sumy region for 2022.*

Types of enterprises	**Structure**		**Land resources**		**Working cattle**		**Fixed assets**		**Labor resources**	
	number	**%**	**billion UAH**	**%**	**billion UAH**	**%**	**billion UAH**	**%**	**billion UAH**	**%**
State-owned enterprises	10	2.8	476	2.8	0.1	4.4	8.7	3.6	44.1	1.9
Farms	24	7.4	1291.7	7.6	0.2	9.4	59.4	6.4	79.4	3.4
Enterprises of other forms of business	4	1.1	101.8	0.6	0.1	0.4	28.9	0.4	70.1	0.3
Production cooperatives	8	2.3	390.9	2.3	0.1	3.3	39.3	1.9	67.8	2.9
Business partnerships	222	62.9	10,724.5	63.1	1.4	62.4	1542.8	61.9	2016.1	83.6
Private enterprises	83	23.5	4011.1	23.6	0.5	20.1	642.9	25.8	184.7	7.9
Together	351	100.0	16996	100.0	2.4	100.0	2492.0	100.0	2338	100.0
Total amount of resources, billion UAH	**21828.4**		16996	77.8	2.4	0.1	2492.0	11.4	2338	10.7

** Source: Statistical Yearbook of Sumy Region for 2022*

Most agricultural enterprises in the region have sufficient resources for production, but for effective functioning it is necessary to optimize their ratio.

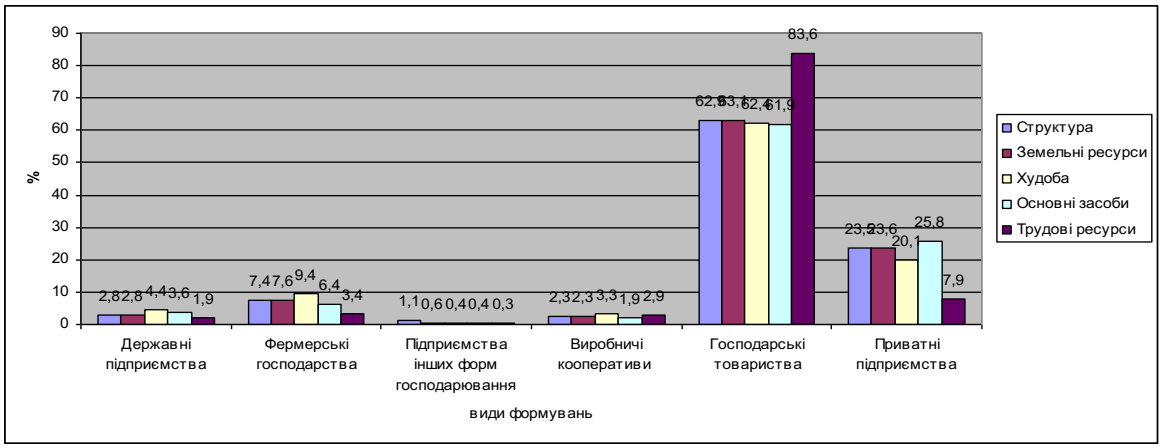

Fig. 3. *Aggregate resources of agricultural enterprises regions for 2022*
**Source: calculated by the author*

In the current economic situation, state-owned agricultural enterprises, like other state structures, are faced with the problem of insufficient funding due to limited budget funds. Farms, given their scale and limited financial capabilities, cannot independently provide themselves with all the necessary resources.For a more visual representation of the structure of aggregate resources, we have proposed the following Figure 3.

Table 12. *Calculation of the value of aggregate resources of enterprises for 2023*

№	Household	Total		Land resources		Fixed assets		Labor resources	
		Million.. UAH.	%	Million.. UAH.	%	Million.. UAH.	%	Million.. UAH.	%
1	LLC "Zerne"	186.0	100.0	122.7	66.0	31.0	51.0	4.8	3.0

*Source: enterprise reporting for 2023

Analysis of the data in Table 12 shows that land and material resources are dominant in the structure of resources of agricultural enterprises.

Comprehensive state planning of resource provision for enterprises guaranteed their solvency, however, by eliminating the risks of bankruptcy, it simultaneously eliminated incentives for efficiency and competitiveness.

Investors in the agricultural sector can be both agricultural enterprises themselves (at their own expense) and external investors, such as commercial banks, credit unions, other agricultural enterprises, trading companies, and agricultural associations.

The amount of profit of an agricultural enterprise, which is the main source of internal finances, depends on the following factors: the volume of products sold, the level of trade markup, the structure and amount of expenses, the efficiency of property management, the tax burden and the distribution of net profit between different areas of use. A significant part of the profit of the enterprise comes from agricultural production, but additional sources of income may be associated with other activities, for example, the sale of products to the population or the provision of services.

Table 13. *Profit of LLC "Zerne", million UAH.*

Indicators	2021 year	2022 year	2023 year	Deviation,2023 from 2020
Net income from product sales	251	172	214	-37
Financial result before tax	10	62	19	9
Net profit	10	62	19	9

**Source: enterprise reporting for 20230 2023*

The data in Table 13 indicate an increase in the profits of agricultural enterprises in recent years, due to the increase in product prices. Profit is a key factor in the development of enterprises, allows satisfying the interests of the state, owners and employees, as well as solving a wide range of social and economic problems.

One of the internal sources of financing of the enterprise is depreciation, which is formed in the process of transferring the value of fixed assets to the cost of production. However, for enterprises with low profitability, the amount of depreciation calculated only based on the book value of fixed assets may be insufficient to fully replace physically and morally worn-out assets, which can slow down their development. The lack of necessary investments in the renewal of fixed assets can lead to the loss of competitive advantages and, as a result, to the ousting of the enterprise from the market. In view of this, some enterprises deliberately set the optimal operating life of equipment. Depreciation, which enterprises receive, is usually distributed between two main areas: renewal of fixed assets and their modernization. In practice, there is often a discrepancy between theoretically calculated depreciation and the real needs of enterprises in investments in fixed assets. The reason for this is the imperfection of the current legislation and state depreciation policy, which do not always take into account the individual characteristics of enterprises, the pace of technological progress and financial capabilities. Despite the use of accelerated depreciation methods, many enterprises face difficulties in financing the necessary renewal of fixed assets.

Table 14. *Analysis of the distribution of depreciation deductions of LLC "Zerne", thousand UAH*

Indicators	Years			Deviation, 2023 from 2021
	2021	2022	2023	
From buildings and structures	26.4	1793.1	4240.5	4241.1
From machines and equipment	14.6	1294.8	3048.7	3034.1
From vehicles	91.0	6873.1	13035.8	2944.8
Total	132	9961	20325	20193

**Source: calculated by the author*

Analysis of the data in Table 14 shows an increase in the amount of depreciation deductions over the past three years. Such a significant growth is associated with the active investment policy of the enterprise, aimed at updating fixed assets. However, for the further development of agriculture, it is necessary to improve the legislation on depreciation, giving enterprises greater flexibility in forming a depreciation policy. Thanks to depreciation deductions:

- fixed assets are being updated;
- new equipment is typically more energy efficient, which reduces production costs and increases competitiveness;
- can be used to finance scientific research and development, which allows creating new products and services, ahead of competitors;
- through depreciation deductions, enterprises can expand production, meeting the growing demand for their products and entering new markets;

- Investments in new equipment and production modernization contribute to the creation of more comfortable working conditions, which increases staff satisfaction and productivity;
- Regular renewal of fixed assets allows enterprises to be more resilient to economic cycles and better adapt to changing market conditions.

Obtaining a loan can significantly affect a company's ability to achieve competitive advantages. For example, loans allow companies to invest in new technologies, expand production, and research and development. This helps create innovative products and services that can give the company a competitive advantage in the market. Loans can be used to finance entry into new markets, opening branches and representative offices in other regions. This allows the company to increase sales.

On the other hand, enterprises with a high level of competitiveness tend to have more stable income and better development prospects. This makes them more attractive to creditors and increases their creditworthiness. Investments in companies with competitive advantages are associated with lower risks for creditors, since such companies are more likely to repay the loan on time. Enterprises with competitive advantages can count on more favorable credit terms, such as lower interest rates and longer loan repayment terms. In 2024, Ukrainian farmers actively developed their farms with the help of bank loans. In total, 6,724 farms received 43.2 billion hryvnias for modernization and expansion of production. At the same time, almost 40% of these funds, namely 18.3 billion hryvnias, were provided under the government program "Affordable Loans 5-7-9%". The data in Table 3.10 indicate the effective use of bank lending by the enterprise to finance current production needs. At the same time, there is potential for increasing the share of investment loans for modernization and expansion of production. In 2024, the agricultural sector will receive significant support. In particular, compensation for part of the cost of agricultural machinery up to 25% is provided, and the program "Affordable Loans 5-7-9%" will be extended until March 31, 2025.

Table 15. *Analysis of the credit situation of LLC "Zerne", UAH million*

Indicators	Years		
	2021	2022	2023
Long-term loans (over 5 years)	6	6	31242
Short-term loans	4383	7735	34994

**Source: calculated by the author*

Farmers can receive compensation for up to half the cost of restoration and construction of land reclamation systems, including laying pipes, drainage, and installing sprinkler systems. The state will provide financial assistance to farmers: small farms will receive UAH 4,000 per hectare, cattle owners will receive UAH 7,000 per head, and sheep and goat owners will receive UAH 2,000 per head.

Loans can be both a powerful tool for achieving competitive advantages and a source of additional risks. The effectiveness of using loans depends on many factors, including the goals of lending, the financial condition of the enterprise, the terms of lending and the effectiveness of management. Therefore, before making a decision to obtain a loan, it is necessary to carefully analyze all possible consequences. Economic instability increases the risks of property loss and accounting irregularities in agricultural enterprises. Regular inventory is an effective way to minimize these risks and ensure the preservation of assets and stabilize the competitive status of the enterprise. Given the variability of resource potential, agricultural enterprise managers must develop strategies aimed at stabilizing it and developing it in the desired direction. This will minimize risks and ensure long-term prospects for farm development.

Although the concept of stability is relative and depends on many factors, all participants in the economic process strive for a stable state of their resources. It is the stability of resource potential that allows for effective planning and implementation of economic activities. The goal of stabilizing

resource potential is to ensure its effective use. To achieve this goal, it is necessary to conduct regular inventory, activate unused resources and convert potential resources into real ones.

The process of development of an agricultural enterprise, aimed at introducing innovations and achieving new goals, may conflict with the need to ensure uninterrupted current activities. Effective use of resource potential requires finding a balance between dynamic development and stable functioning. An enterprise, striving to maintain current stability, uses its resources cautiously. However, to achieve long-term goals, it applies riskier strategies that can lead to temporary imbalances.

By conducting an inventory, an agricultural enterprise, in essence, "keeps an account" of its resources, identifying their quantity, quality and location. This data is recorded in a resource passport, which is a kind of "identity document" for the enterprise's resources, reflecting their condition and availability. Inventory is the process of comparing the actual availability of assets and liabilities of the enterprise with accounting data. If discrepancies are found, appropriate adjustments are made to the records.

To ensure that the data on property reflected in the balance sheet is true, enterprises are required to conduct an inventory. This is stipulated by the Law of Ukraine "On Accounting and Financial Reporting". According to the Order of the Ministry of Finance No. 69, the inventory involves a set of measures aimed at:

1. Verification of the quantitative and qualitative composition of assets: comparison of the actual availability of property with accounting data, identification of surpluses, shortages or damage.
2. Asset utilization assessment: identification of unused or partially depreciated assets.
3. Control over the preservation of property: verification of compliance with the rules for the storage and operation of fixed assets, as well as the safety of funds.
4. Confirmation of the accuracy of accounting data: ensuring that accounting data corresponds to the real state of affairs.

Inventory allows you to compare the actual availability of property with accounting data, identify discrepancies and establish their reasons. At each enterprise, a permanent inventory commission is created to conduct an inventory, which includes management, accountants and other specialists. If necessary, additional working commissions are created for the direct recount of material values at their storage locations. The results of the inventory are formalized in appropriate acts, which are signed by the members of the commission and financially responsible persons. One copy of the inventory description is transferred to the accounting department, where it is compared with accounting data. Based on this comparison, a comparative statement is drawn up, which reflects all the identified discrepancies between the actual availability of property and accounting data. The accounting department carefully checks the correctness of all accounting entries before drawing up a comparative statement.

The results of the inventory are reflected in the accounting as follows: shortages and spoilage are written off as expenses or to the guilty parties, surpluses are recorded as income. All information about the results of the inventory is reflected in the accounting within 10 days after the completion of the inventory. To achieve the maximum effect from the inventory, it is necessary to carefully plan and organize this process. Improving the quality of the work of the inventory commission, as well as the objectivity of determining the results of the inventory are important factors for increasing the efficiency of agricultural enterprises. The analysis of the literature has shown that for a comprehensive assessment of the enterprise's resources during the inventory it is necessary to use various methods, in particular organoleptic ones, which allow to obtain a more objective picture. Inventory is necessary to assess not only the quantitative, but also the qualitative side of the enterprise's resources, in particular, their suitability for use. The use of exclusively organoleptic methods is insufficient for a comprehensive assessment of resource potential.

In our opinion, computational, analytical and documentary methods are an integral part of organoleptic techniques and can be effectively applied in the inventory process. But they can be supplemented with the following:

- Economic and mathematical calculations allow us to quantitatively assess not only the volume of shortages and damage to material assets, but also to determine the amount of natural losses, losses from theft, as well as indicators such as the service life of fixed assets, deferred expenses and reserves;
- Valuation in accounting involves establishing a monetary expression for accounting objects in accordance with national standards. In this case, it is necessary to distinguish between checking the reliability of estimates indicated in accounting registers and assessing the physical condition of assets using expert methods, which is one of the organoleptic techniques;
- The inventory involves a thorough documentary check, which includes an assessment of the correctness of the registration, the presence of all necessary details, and compliance with legislation;
- A regular documentary check involves the systematic exchange of documents with counterparties to verify mutual settlements and confirm the accuracy of information on the company's receivables and payables; a regulatory check establishes the compliance of accounting and inventory procedures with current legislation and standards.

Most researchers [22] indicate that inventory allows you to verify the compliance of the actual state of the assets of an agricultural enterprise with accounting data, which is confirmed by legislation. The objects of inventory at agricultural enterprises are all resources reflected in the accounting. The specifics of agriculture determine the special composition of these resources. Inventory allows you to assess in detail the availability, condition, cost and storage conditions of each asset, as well as verify compliance with the rules for the operation of fixed assets. Given the rapid development of technologies, the relevance of assessing and managing enterprise resources has significantly increased. For effective management and modernization of the resource base, it is necessary to conduct resource certification.

Resource certification is a systematic approach to analyzing the activities of an agricultural enterprise, which allows you to identify unused potential, determine specialization and assess the technical condition of equipment. Thanks to certification, you can develop effective enterprise development strategies.

Resource certification is the foundation for a comprehensive assessment not only of individual enterprises, but also of entire regions. It helps identify development potential, attract investments, and solve strategic problems.

Resource inventory is the basis for the development of resource passports of agricultural enterprises. This process requires the participation of specialists with different competencies and is associated with certain costs. The organization of passporting at the enterprise level is entrusted to its manager, and at the regional level - to a specially authorized person.

A resource passport is a comprehensive documentation that reflects the current state and competitive potential of an enterprise's resources necessary to ensure the production process and achieve the set goals. The impact of the resource passport proposed by us is as follows:

- a resource passport, as a detailed description of all the resources of an enterprise, is a kind of "passport" of its capabilities, and competitive status, in turn, is determined by how effectively the enterprise uses these resources to achieve its goals in the market;
- a resource passport allows you to assess the strengths and weaknesses of the enterprise, its potential for development and opportunities for growth;
- the resource passport is an important tool for making informed management decisions related to the development of the enterprise;
- the efficient use of resources, which is reflected in the resource passport, is one of the key factors in ensuring the competitiveness of an enterprise.

When forming a resource passport, the key economic and production indicators of the enterprise are taken as a basis. The document is supplemented with the results of the property

inventory, statistical reporting data and other regulatory acts. Structurally, the resource passport consists of the following sections:

Table 16. *Complete list of assets and liabilities that are checked during the inventory in the structure of the competitive potential of the enterprise*

Name of the inventory object	Inventory objects
Assets	
Fixed assets:	
land plots	pastures, arable land, hayfields, reservoirs, forests, reserve lands
land improvement through capital expenditure	costs for land reclamation, drainage, irrigation and other works
buildings	production and storage facilities of an agricultural enterprise
Transmission devices and structures	communications and facilities to ensure production
devices and agricultural machinery	technical park of the economy
perennial plantings	ornamental plantings
Intangible assets	easements, property rights
Long-term biological assets	perennial plants and animals
Materials for agriculture	Seeds, feed, plant protection products, fertilizers
Equity and liabilities	
Authorized capital	authorized capital of agricultural enterprises
Share capital	share capital of agricultural cooperatives

**Source: generated by the author*

1. The introductory part of the passport, which contains the document's identification data, the name of the enterprise, and general information about it.

2. Characteristics of the economic situation and natural conditions of the region in which the farm operates, as well as an overview of its main activities.

3. Consistent increase in production volumes of key products by the farm in accordance with state programs for the development of the industry.

4. Availability and condition of the farm's material and technical base with a detailed description of the equipment characteristics.

5. Urgent need to update fixed assets.

6. Description of the use of resources by the farm and sources of their replenishment.

7. Availability of social infrastructure facilities at the enterprise.

8. Constant monitoring of the resource supply of the enterprise.

9. Increasing production efficiency through optimal use of available resources - forecasting.

In conclusion, the resource passport is a living document that reflects all the changes taking place in the farm: modernization, reconstruction, changes in production. The manager or owner of the farm signs the resource passport, taking responsibility for the accuracy of the information it contains for the next five years.

The resource passport of an agricultural enterprise is a detailed description of all the resources necessary for the production of products, which serves as a tool for planning and controlling production activities, as well as determining its competitive status. The idea of resource passporting is gradually entering the practice of agricultural enterprises. Thus, today it is already recommended to draw up documents containing detailed information about the state of the land, which allows you to control compliance with the requirements of land legislation. Without regular monitoring of the resource potential of agricultural enterprises, it is impossible to effectively manage its competitive status, production processes and ensure sustainable development of the industry.

Table 17. *List of elements that must be included in the resource passport of an agricultural enterprise*

№.	Ingredients	Goal	Performance
1.	Financial	Positive profit dynamics	profit
2.	Consumer	Meeting deadlines is a must.	number of times
		Quality must correspond to reality.	waste
3.	Resourceful	Unlocking your full productivity potential	productivity
		Cost optimization	main production
4.	Social	Employee loyalty and engagement	Investments in human capital ensure business stability.
		Professional training	labor productivity
5.	Competitive	the ability to stand up to its rivals and gain market share.	from product or service quality to marketing strategies and pricing policies.

**Source: developed by the author*

Drawing up a resource passport is a necessary step to increase the efficiency of the enterprise, reduce production costs and improve product quality. Such a passport allows you to identify reserves for increasing production and determine strategic directions for the enterprise's development.

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