Marketing analysis of the functioning environment of agrarian enterprises

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Abstract. Before the full-scale invasion of the russian federation, the agricultural sector of Ukraine developed dynamically and played a leading role in ensuring domestic and global food security, employment of the population, and the formation of foreign exchange earnings from product exports and state budget revenues. The active phase of the war on the territory of the country radically changed the conditions for the functioning of agricultural enterprises. The purpose of the article is to characterize and assess the influence of certain elements of the external environment on the activities of agricultural enterprises. The research is based on the dialectical method of learning economic processes and the following methods are used: monographic, abstract-logical, PEST analysis, SWOT analysis. The study analyzed the works of Ukrainian scientists on the problems of the functioning of agricultural enterprises and identified the main political, economic, social and technological factors of the influence of the external environment on their activities in the conditions of martial law. It has been established that the political factors of the environment affect the activity of agricultural enterprises mainly positively, economic factors have a mainly negative effect on them, and social and technological factors have different directions. The assessment of the main strengths and weaknesses, opportunities and threats of the environment of agricultural enterprises showed the existence of prerequisites for the quantitative growth of gross volumes of their production and the need to develop a comprehensive strategy of agricultural policy for long-term growth in the conditions of post-war recovery, the key tasks of which should be ecologically oriented nature management, the development of dual education for training highly qualified workers, increasing the volume of production and export of organic and ready-made food products, technical and technological modernization of the production base. Priority stimulation of investments in increasing the volume of production of organic food products, development of primary and advanced processing of agricultural raw materials inside the faucet is proposed. The practical significance of the research lies in the fact that its results can be used by state institutions responsible for the development of the agrarian sphere, when developing a strategy for its development and substantiating measures for its implementation, by agricultural enterprises – when developing marketing strategies, by scientists – when further researching the problems of the influence of the external environment on the development of agricultural production

Keywords: agrarian sphere of economy; food; factors of the external environment; martial law

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INTRODUCTION

The agricultural sector plays an important role in the national economy of Ukraine. The enterprises included in it are forced to work under the constant influence of factors of the external macro- and microenvironment. With the beginning of the full-scale armed invasion of the Russian Federation on the territory of Ukraine, the conditions for the functioning of the economy changed radically, and new challenges arose arising from the war. Constant monitoring of changes in the external environment, uncontrollable by individual business entities, allows them to develop their own strategies for further activities aimed at minimizing the consequences of negative impact factors and maximizing the use of favorable factors. Tracking and forecasting the possible consequences of environmental influences on the economic behavior of agrarians and the results of their activities is the basis for the development of economic policy measures for the maximum use of the potential of the agrarian sector in the conditions of martial law.

If consider the enterprise as a system, then its external environment is understood as a set of all components that do not belong to this system and whose changes can cause the system to transition to a state different from the current one (Drabik, 2022). The external microenvironment consists of factors in the immediate environment of the enterprise that affect its activities. These include suppliers, marketing intermediaries, competitors, customers and the public. The macro environment consists of larger social elements that influence all factors of a company's micro environment, such as demographic, economic, natural, technical, political, and cultural influences (Singh et al., 2022). The complexity of the external environment is reflected not only by the number of its factors, but also by their regional differences and dynamism. The same factors shape different environments in different geographic regions and, at the same time, are quite variable over time (Manic et al., 2017).

All factors of the enterprise's external environment are directly interconnected. Political factors determine the institutional environment of the functioning of the economy, the importance and influence of which on the development of the agricultural sector of Ukraine lies in the possibility of providing enterprises with investment resources through the use of appropriate economic mechanisms (Bakhur, 2020; Zoria et al., 2020; Kravchenko, 2020). This environment determines the presence of innovative technologies through the regulation of the processes of formation and use of innovative knowledge, the state of the market for innovative products, and the level of protection of intellectual property objects (Tesheva, 2020). Collectively, this determines the trends in the development of social capital in the agrarian sphere (Hrytsaienko, 2020). The military actions on the territory of Ukraine radically changed the conditions of the external business environment, which actualizes the chosen research topic.

The purpose of the article was to determine the most influential factors of the external environment of Ukrainian agricultural enterprises during the full-scale invasion of the Russian Federation and to assess the nature of their influence.

MATERIALS AND METHODS

The research is based on the dialectical method of understanding economic processes, which determined its logic and stages. At the first stage, using the mono-graphic method, the works of Ukrainian and foreign scientists on the problems of analyzing the external environment of enterprises and the development of the agrarian sector of the economy were analyzed, as well as analytical information of the Ministry of Agrarian Policy and Food of Ukraine, the State Statistics Service of Ukraine, the National Institute of Strategic Studies and materials of periodicals.

At the second stage, using the PEST analysis, the main political, economic, social and technological factors of the influence of the external environment on the functioning of agricultural producers were identified and the nature of this influence was determined. The choice of this method is due to the fact that PEST analysis is a powerful and widely used tool for understanding strategic risks. It allows identifying changes and the impact of the external macro-environment on the competitive position of enterprises. Quantitative assessments of the impact of environmental factors were not used due to the significant diversity of product specialization, size, and location of agricultural enterprises.

At the third stage, based on the results of the generalization of the work of Ukrainian scientists regarding the factors that contribute to or complicate the conduct of agrarian business and the results of the PEST analysis, the main strengths and weaknesses, opportunities and threats of the external and internal environment of agricultural enterprises were determined by the SWOT analysis method. On its basis, potential growth opportunities (opportunities) and external factors that may pose risks (threats) are determined. This information is critical to developing strategic plans, setting goals, and making informed decisions to maximize agribusiness productivity. In the study, agricultural enterprises are understood as a set of economic entities engaged in agricultural production and related enterprises for the processing of agricultural raw materials into food products and into raw materials for further industrial use, which cover the stages of reproduction – the production and distribution of the produced product between processing industries. The result of the conducted...
research is the formulation of conclusions and recommendations using the abstract-logical method.

**RESULTS**

In order to understand the threats and opportunities of the external environment for agricultural enterprises, during the PEST analysis, Ukrainian scientists in the pre-war period distinguished a different composition of factors within four main groups of macro-environmental factors: political, economic, social and technological. V. Khodakyvskyy & M. Mysevych (2017) structure each group into six components, and identified economic factors as the most favorable for the development of agribusinesses, while social factors are the most threatening. I. Gorbacheva (2016) assesses the impact of the external environment as mostly negative and identifies six components within economic factors, five political factors, two technological factors, and three social factors. A different approach was used by N. Sirenko & K. Mikulyak (2020), who identified three favorable and three threatening factors within each of the groups. According to the results of their assessments, the threats of the economic bloc have the greatest impact on the development of the agrarian sector. There are no fundamental contradictions in the list of factors in the cited studies, only the degree of their detailing differs. Differences in estimates are due to the fact that scientists used the method of expert evaluations and the result was determined by an optimistic or pessimistic vision of the potential result of the influence of factors.

The views of the agrarians themselves regarding the factors most restraining agricultural activity partially reflect the results of the survey of agricultural commodity producers conducted periodically by the State Statistics Service of Ukraine (2023) (Fig. 1). According to them, for the 1st quarter of 2023, weather conditions were noted by a higher percentage of respondents than lack of financial resources. At the same time, the negative influence of “other factors” under which the majority of respondents point to the war with the Russian Federation, which complicated the logistical component of exporting products, and therefore negatively affected the price offers of buyers of certain types of products, exacerbated the personnel problem (mobilization of workers).

![Figure 1. The results of a survey of agricultural commodity producers regarding factors that complicate the conduct of agricultural business](image)

**Notes:** data for 2023 are provided for the 1st quarter

**Source:** developed by the authors based on the State Statistics Service of Ukraine (2023)

**Political factors of influence.** To mitigate the negative impact of the war on agribusiness, Ukrainian government officials and foreign partner countries developed a number of measures. Thus, in 2022, four laws and 11 resolutions of the Cabinet of Ministers of Ukraine (CMU) were adopted, aimed at exempting goods used for the storage of grain and/or oilseed crops, simplifying land relations, registration procedures for agricultural machinery, and seed certification from import duties, farmers’ access to fuel, pesticides and agrochemicals, import of food and feed, products of animal and plant origin, genetic material, pesticides and agrochemicals. State financial support programs for agribusiness were also implemented, in particular, within the framework of
servants realized that overcoming corruption is an extremely important task, because this will be the basis for further victory, effective reconstruction and full and rapid integration into the European Union (Motlyakh, 2022). At the same time, if at the first stage of the war the problems of corruption decreased in urgency due to the scale of security threats, they gradually became relevant again. This was facilitated by the suspension of the public work of the register of electronic declarations of officials and officials, the permission of the Cabinet of Ministers to enter into direct contracts for public procurement, disregarding competition, restrictions on the operation of open data portals, websites of local self-government bodies and their divisions, which reduced the amount of available information about the work of local self-government bodies, in including in the part of decisions regarding the conclusion of lease agreements, provision of residential premises, purchases, etc. (Transparency International Ukraine, 2022).

**Economic factors of influence.** According to the results of 2022, the Ministry of Economy of Ukraine estimated the fall in GDP to 29.2%, which was a consequence of the destruction of some industrial enterprises in the east of Ukraine, crop theft in the occupied territories and other consequences of the war (GDP fell by..., 2023). At the same time, in 2023, as a result of the relaxation of part of the enterprises, the adaptation of business entities to conducting business in war conditions, as well as the effective actions of the Armed Forces of Ukraine (AFU) to de-occupy the territories, a small increase in the Gross Domestic Product (GDP) is predicted, which is provided for by Law of Ukraine No. 2710-IX (2022) in the amount of 3.2%, forecast by the National Bank of Ukraine (NBU) (2023) by 0.3%. At the same time, the international rating agency Moody’s predicts that Ukraine will experience a slight reduction in real GDP by 2% in 2023 (Moody’s downgrades Ukraine’s..., 2023). The consequence of a possible further recession of the economy may be a reduction in the business activity of agro-enterprises; instead, the slight revival of the economy as a whole predicted by government institutions will not lead to significant growth.

According to the National Bank of Ukraine (n.d.), the consumer price index for 2022 reached 26.6% (December to December of the previous year), and according to the forecast of the Ministry of Economy of Ukraine at the end of 2023, the inflation rate will be 24% (The Ministry of Economy predicts..., 2023). Therefore, it can be expected a further decrease in business income and savings, an increase in production costs, and an increase in the cost of loans.

Predominance in the pre-war period in the structure of the export of products of the agricultural sector of the raw material component in combination with significant logistical problems of its supply to foreign countries to Ukrainian farmers during martial law consisted in the simplification of export rules, in particular the cancellation by the EU for one year of all customs duties and quotas for exports from Ukraine, the launch of “Solidarity Paths” and the allocation of 1 billion euros for their development, the introduction of various financial assistance programs. For example, since September 1, the State Agrarian Register has started accepting applications within the framework of the new program of assistance to small agricultural producers for a total amount of more than 1.5 billion hryvnias, which is financed from EU budget support (Gromov, 2022). The Food and Agriculture Organization of the United Nations (FAO) also implements programs to support small Ukrainian farmers. They received winter wheat seeds to ensure production needs for the 2023 harvest, as well as grain sleeves (more than 30,000 plus 105 sets of special equipment for their loading/unloading) to ensure storage and protection of the crop this season. FAO provides animal feed, multipurpose cash assistance and vouchers for the purchase of other inputs to rural households. In 2022, FAO allocated $2.4 million to purchase vegetable seeds, grain seeds, and potatoes for Ukrainian farmers (Ministry of Agrarian Policy and Food of Ukraine, 2022).

Against this background, from a political point of view, the growth of Ukraine’s authority in the international arena, its support by international organizations, and the consolidation of political forces in the middle of the country are positive. The aggression of the Russian federation pushed the population of Ukraine on the path of unification, growth of national self-awareness, popularization of cultural and historical values. During the martial law, a large part of citizens and civil servants realized that overcoming corruption is an extremely important task, because this will be the basis for further victory, effective reconstruction and full and rapid integration into the European Union (Motlyakh, 2022). At the same time, if at the first stage of the war the problems of corruption decreased in urgency due to the scale of security threats, they gradually became relevant again. This was facilitated by the suspension of the public work of the register of electronic declarations of officials and officials, the permission of the Cabinet of Ministers to enter into direct contracts for public procurement, disregarding competition, restrictions on the operation of open data portals, websites of local self-government bodies and their divisions, which reduced the amount of available information about the work of local self-government bodies, in including in the part of decisions regarding the conclusion of lease agreements, provision of residential premises, purchases, etc. (Transparency International Ukraine, 2022).

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markets in conditions of war, dependence on the operation of the so-called “grain corridor” when selling to the traditional sales markets of Asian and African countries, limited capacity the European boundaries of the volume of demand in combination with the reduction of Ukrainian elevator capacities to preserve the harvest creates a threat of increasing disparity in purchase prices for export products of agricultural enterprises and, as a result, a significant underachievement of profits.

The threat outlined above is partially offset by the consistently high and growing demand for agricultural products on international markets, which is due to the increase in the global population, which, according to UN forecasts, will reach almost 10 billion people by 2050 (United Nations, n.d.). Given the limited amount of agricultural land, it is impossible to significantly increase the global food supply in the short term, which leads to an increase in market prices. For example, the FAO cereal price index increased by 17.9% in 2022 (De La Hamade, 2023).

An additional test for Ukrainian farmers is a permanent shortage of resources: fuel in the spring of 2022, electricity in the fall of 2022 and in the winter of 2023. It is clear that these deficits were overcome by the abolition of state regulation of fuel prices and the purchase of generators, but this led both to the loss of part of the production and to an increase in its cost price. As for nitrogen fertilizers, some farmers had stocks for the 2022 sowing season, and at the beginning of the 2023 sowing season, their deficit on the market amounted to more than 60%. According to Taras Vysotskyi, First Deputy Minister of Agrarian Policy and Food of Ukraine: “if a farmer applies 30% less fertilizer or more, then the fall in yield may be twofold” (Fertilizer deficit: Yields..., 2023). It is possible to predict the negative consequences of the disruption of interregional production ties for the volume and structure of agricultural production in the future.

Military operations also had a negative impact on the work of food processing enterprises, some of which temporarily stopped their business at the beginning of the war and began to look for various options for restoring and continuing their activities (How Ukrainian food..., 2023). The destruction of production capacities and the breakdown of logistics chains, the reduction of domestic consumption also affected the demand for the corresponding agricultural products.

Social influencing factors. A key factor in the effective functioning of the branches of the national economy is the availability of highly motivated labor resources, which is manifested through their satisfaction with a decent level of income, the development of social infrastructure, a positive psychological climate at the workplace, etc. According to the International Labor Organization, before the beginning of the military aggression of the Russian Federation, 15-17 million people of working age lived in Ukraine. A significant number of them lost their jobs in 2022, as hostilities take place in areas where industrial production was mainly concentrated (Vinokurov, 2022). It is quite difficult to accurately determine the number of such people, due to the lack of relevant studies by statistical authorities, however, according to the estimates of the National Bank of Ukraine, the level of unemployment in the country, as of the beginning of 2023, was about 30% (2.0 million people are looking for work in the middle of the country and more 2.7 million abroad from those who got there as a result of the war, and before that were actively involved in the economy of the state) (Unemployment rate in Ukraine..., 2023). This state of affairs deepens the problem of pension provision for the relevant population. The situation is complicated by the demographic component, which is characterized by a clear tendency towards the aging of the nation.

Thus, according to the UN, Ukraine is among the five countries in the world with the highest rates of population aging (Heyets et al., 2019). Under such a development of the situation, producers of agricultural products are the most vulnerable component of the national economy, since workers in this field already have a fairly high average age, which is rapidly approaching the retirement age. Mobilization had a negative impact on the supply of labor resources, especially machine operators. Farms carrying out economic activities on more than 1,000 hectares of arable land had the opportunity to issue reservations for 50% of employees, while smaller ones were deprived of this (Order of the Ministry of Agrarian Policy and Food of Ukraine No. 223, 2023). Both the former and the latter had to solve the problem of the shortage of relevant personnel independently, and the first step was to involve in the implementation of technological processes people of retirement age who had previously worked for these employers. A significant migration of internally displaced persons from the south-eastern regions of Ukraine should have a positive impact on the state of affairs in rural areas, but the vast majority of them do not have relevant work experience in the agricultural sector.

The state, in the form of executive authorities, and Ukrainian and international public organizations to support displaced persons provide them with various support, including financial support. However, the amounts of payments, as a rule, do not reach the level of the previous incomes of such categories of the population, covering only partially their needs for a grocery basket, housing, etc. (Kurinna, 2023). The situation is also negatively affected by the development of inflationary processes in Ukraine, which exerts pressure on the purchasing power of the population. Thus, the author’s analysis of the current state of the food market indicates a significant increase in the level of consumer prices and a decrease in the range of presented product
items, especially for products with a high added value. The reason for this is the loss of part of the production and infrastructure capacities, interruptions in the supply of energy resources, constant missile attacks and other factors, the root cause of which was the war. Another factor in the formation of such a situation is the decrease in the purchasing power of the population, according to experts’ calculations, by an average of 40-45% (Drukov, 2022). So, if in 2021 the average monthly income in Ukraine was the equivalent of 500 US dollars, then at the beginning of 2023 it will be 375 (Shapoval, 2022). Under this development, most potential buyers will prefer cheaper products belonging to the basic category (flour, bread, oil, etc.), while reducing the consumption of dairy products, meat (cattle, pigs) and its processing products, in primarily the premium segment, etc. The specified structural shifts in the consumer basket of the lion's share of the population forced food industry enterprises to optimize their product portfolio, which led to a decrease in the volume of purchases of certain types of grain from agricultural producers, namely those that are raw materials for the production of products oriented to the domestic market (How the main sectors ..., 2022).

The deepening of stratification of population strata in Ukraine by income level has significant negative consequences for the national economy. Because it affects not only the level of purchasing power, but also the supply of individual industries with labor resources. Thus, according to UN research, under modern conditions of ensuring competitive advantages for the economic growth of both the country as a whole and individual spheres, 64% depends on human and social potential, 20% on natural resources and 16% on capital (Chala et al., 2018). Especially vulnerable in such a situation is agriculture, which is losing its traditional base of human resources due to their migration to cities. This process is caused not only by the amount of wages, but also by the lack of proper development of the components of the social infrastructure. The development of the agricultural sector of Ukraine is positively influenced by the presence of a wide network of specialized educational institutions for the training of the entire spectrum of labor professions and specialties, which continued their activities even in wartime, according to the needs of employers. Thus, as of January 1, 2022, 21 institutions of higher agricultural education and 104 colleges of the corresponding profile and a large number of vocational and technical lyceums were operating in the country (Nikolaenko & Nikolaenko, 2021). However, during the last decade, there has been a steady trend towards a reduction in the number of applicants, which is related to both demographic factors and the possibility of educational and labor migration of the population to other countries.

The mentality of managers and employees, which is characterized by a low level of tax culture and a tendency to shadow incomes, has a significant impact on the development of agrarian business. This situation complicates the work of legal Ukrainian agrarian businesses due to a decrease in their competitiveness, which negatively affects budget revenues and the development of rural areas. Also, this has a significant impact on the deterioration of Ukraine’s image, as international partners are familiar with such facts and do not support such approaches to doing business. According to experts (Lebed, 2021), the biggest risk of the existence of the shadow market is that its share will continue to grow further, which will lead to a decrease in investments in promising areas related to the formation of added value.

**Technological factors of influence.** By the end of December 2022, as a result of military operations in Ukraine, about 20% of agricultural land was damaged. They are either mined, or contaminated with oil products and chemical compounds, or damaged by machinery. The area of such lands continues to increase in 2023, and their return to full economic use will take decades (Decyk, 2022). Such a situation will have a particularly negative effect on territorial communities, whose budgets are formed, mainly, at the expense of income from agrarian business. The next element of resource provision of agricultural production, which suffered the greatest losses, is the appropriate machinery, tools and equipment. Damages caused are estimated at $2.9 billion or concern more than 84,000 positions. In addition, grain storage facilities with a total capacity of 9.4 million tons (excluding those operating in the occupied territories) were damaged, which requires appropriations at the level of $1.1 billion (Naiter, 2022). According to the Ministry of Agrarian Policy, 15-20% of cattle, pigs and poultry were lost due to military operations (Rusan, 2023). Total direct losses of the agricultural sector, including stolen and destroyed finished products, during the year of military operations, according to experts’ calculations, amounted to $6.6 billion, which is 23% of the total value of assets of Ukrainian agricultural enterprises (Naiter, 2022). The formation of the added value of agricultural products was negatively affected by the loss of significant amounts of processing capacity. This was especially noticeable in relation to the oil and fat industry, which forced farmers to export oilseeds rather than vegetable fats and other related products (Penkova & Kharenko, 2023). The situation in agrarian business was complicated by logistical problems associated with the limited involvement of sea transport in export operations and the sharp increase in the cost of railway services (Zakharchuk et al., 2021). This led to a situation where a significant proportion of commodity producers sold grain almost at cost price.
At the beginning of the second decade of the 21st century, the supply of agricultural goods producers with equipment and tools was in an unsatisfactory state. Thus, their availability in farms decreased by 40-50% compared to 1990, and the degree of wear and tear was approaching a critical limit. The growth in subsequent years of the productivity of crops and animals, as well as sales prices, primarily of export-oriented types of products, contributed to the increase in the efficiency of agrarian business, which made it possible for business entities to massively direct resources to the purchase of modern models of the necessary equipment. The level of concentration of the land bank became a determining factor in the orientation of farmers to the country of origin of the equipment (Vitiuk & Smetaniuk, 2020). Large-scale enterprises, generating greater profits, preferred new models of foreign-made equipment, and small-scale enterprises – Ukrainian ones. At the same time, in the future, the latter reoriented themselves to the previously used foreign-made equipment, believing that although it costs much more than the Ukrainian one, it is superior to it in terms of quality parameters. A similar situation is observed in relation to seed material and plant protection products. The only difference is that with regard to plant protection products (PPPs), large farms buy original drugs, and small producers buy generics. The qualitative and quantitative increase in the technical potential of agricultural producers contributed to the increase in labor productivity and product quality, automation and mechanization of production processes, which had a positive effect on the cost price of the obtained products. At the same time, a negative point for the national economy is the tendency of Ukrainian farmers to use foreign models of both equipment and agricultural machinery with seed material, provided that appropriate Ukrainian products are available. During the last decade, farmers began to actively pay attention to the quality parameters of the products they produced, as well as the formation of their management system. They were prompted to do so by growing demands from food industry enterprises and traders, which are subjects of foreign economic activity, and therefore focus on the relevant standards in force in importing countries or those with international status. Another reason is the close relationship between quality parameters and the level of purchase prices. The establishment of close, constructive cooperation between product manufacturers and educational and scientific institutions had a positive effect on the implementation of this task regarding: optimization of technological processes of product production, its primary processing, storage; approbation of crop varieties (hybrids) taking into account regional natural and climatic conditions, doses of fertilizers, use of various plant protection systems; training of personnel in advanced approaches to the performance of professional functions; those.

**PEST analysis.** Evaluating the impact of environmental factors on the development of agricultural enterprises in general, one should note their multi-vector orientation (Table 1). Each additional month of the war will intensify negative trends in the economic, social and technological environment of the functioning of agribusiness.

### Table 1. PEST analysis of factors of external influence on the development of agricultural enterprises

<table>
<thead>
<tr>
<th>Impact factor</th>
<th>Direction of action (+/-)</th>
<th>Impact factor</th>
<th>Direction of action (+/-)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Political</strong></td>
<td></td>
<td><strong>Economic</strong></td>
<td></td>
</tr>
<tr>
<td>1. War with the Russian Federation</td>
<td>-</td>
<td>1. Recession of the economy of Ukraine</td>
<td>-</td>
</tr>
<tr>
<td>2. Increasing authority of Ukraine in the international arena</td>
<td>+</td>
<td>2. Inflationary processes in the country</td>
<td>-</td>
</tr>
<tr>
<td>3. Support of international organizations, including the UN</td>
<td>+</td>
<td>3. Predominance in the structure of the export of products of the agricultural sector of the raw material component</td>
<td>-</td>
</tr>
<tr>
<td>4. Harmonization of Ukrainian legislation with relevant aspects of EU countries</td>
<td>+</td>
<td>4. Stable high demand for agricultural sector products on international markets</td>
<td>+</td>
</tr>
<tr>
<td>5. Improvement of the institutional environment for conducting business and foreign trade</td>
<td>+</td>
<td>5. Problems with material and technical support, as well as rising prices for means of production in the agricultural sector</td>
<td>-</td>
</tr>
<tr>
<td>6. Presence of desire in society for positive changes in the country</td>
<td>+</td>
<td>6. Disruption of interregional industrial relations</td>
<td>-</td>
</tr>
<tr>
<td>7. Presence of facts of corruption</td>
<td>-</td>
<td>7. High investment attractiveness (availability of credit resources)</td>
<td>+</td>
</tr>
<tr>
<td><strong>Social</strong></td>
<td></td>
<td><strong>Technological</strong></td>
<td></td>
</tr>
<tr>
<td>1. Problems with the labor force: internal and external migration, mobilization to the Armed Forces, rising unemployment, psychological problems of personnel (work in constant stress and anxiety)</td>
<td>-</td>
<td>1. Loss of a part of land, production, processing and logistics resources due to military actions</td>
<td>-</td>
</tr>
</tbody>
</table>
Table 1, Continued

<table>
<thead>
<tr>
<th>Impact factor</th>
<th>Direction of action (+/-)</th>
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<th>Direction of action (+/-)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Growth in the number of food consumers in the world</td>
<td>+</td>
<td>2. Fast rates of renewal of fixed assets</td>
<td>+</td>
</tr>
<tr>
<td>3. High level of education of the population and qualification of personnel</td>
<td>+</td>
<td>3. Strengthening the relationship between education, science and production needs of commodity producers</td>
<td>+</td>
</tr>
<tr>
<td>4. A decrease in the purchasing power of the majority of Ukrainians and, as a result, a change in consumer behavior to limit consumption to the minimum satisfaction of needs</td>
<td>-</td>
<td>4. Automation and mechanization of all production processes</td>
<td>+</td>
</tr>
<tr>
<td>5. Growing national self-awareness of the population, “economic patriotism” in consumption and rapid adaptation of business entities to changing environmental conditions</td>
<td>+</td>
<td>5. Increasing the general level of quality of agricultural sector products</td>
<td>+</td>
</tr>
<tr>
<td>6. Deepening the processes of stratification of population strata by income level</td>
<td>-</td>
<td>6. Low demand for domestic scientific and technical and innovative developments</td>
<td>-</td>
</tr>
<tr>
<td>7. Low level of tax culture of the population, tendency to shadow incomes</td>
<td>-</td>
<td>7. Reduction of requirements for the quality of part of the resources used in agricultural production (fuel, pesticides, etc.) during the martial law</td>
<td>-</td>
</tr>
</tbody>
</table>


Realization of the potential of positive factors will be determined, first of all, by the terms of Ukraine's victory in the war and the unchanging support of the government and the support of foreign partner countries and international organizations. This allows us to hope for the further effective development of this key sector of the economy for Ukraine, as it will be able to become a locomotive of post-war reconstruction in the future.

**SWOT analysis.** According to the obtained results, they have a significant potential for their further development in the context of increasing production volumes (favorable natural and climatic conditions, relatively cheap production resources) and further distribution (geographical location of the country, growing demand in the world). This helps attract investment resources, which makes it possible to create new jobs and new added value. All this will affect the improvement of the economic and social situation in Ukraine. Weaknesses of the agricultural sector include an imperfect regulatory framework, the lack of a systematic approach from the point of view of financial and economic support for commodity producers, and the low productivity of the use of resources by a significant number of enterprises (Table 2).

**Table 2. SWOT analysis of agricultural enterprises of Ukraine**

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weak sides</th>
</tr>
</thead>
<tbody>
<tr>
<td>- availability of fertile land suitable for conducting highly efficient agricultural business;</td>
<td>- the land market is not sufficiently developed;</td>
</tr>
<tr>
<td>- the terrain is suitable for large-scale production of plant products;</td>
<td>- deterioration of the quality of land resources due to non-compliance with technologies and crop rotation;</td>
</tr>
<tr>
<td>- favorable climatic conditions;</td>
<td>- the need for highly qualified workers is intensifying;</td>
</tr>
<tr>
<td>- low level of land rental cost and cheap labor force;</td>
<td>- low level of labor productivity compared to EU countries;</td>
</tr>
<tr>
<td>- favorable geographical position of Ukraine from the point of view of logistics;</td>
<td>- lack of effective financial (including credit) and economic support mechanisms for commodity producers as a whole system, which is manifested in the imperfection of the existing long-term strategy for the development of the agricultural sector;</td>
</tr>
<tr>
<td>- Ukraine's strong position on international food markets (especially grain and oil);</td>
<td>- a significant share of production and processing enterprises (mainly small and sometimes medium-sized ones) use old technologies, slowly update the material base;</td>
</tr>
<tr>
<td>- wide use of advanced global technologies by all subjects of economic activity, regardless of the scale of business;</td>
<td>- the presence of dominant players in certain types of products, which are gradually turning into monopolists (especially in the case of animal husbandry products);</td>
</tr>
<tr>
<td>- the management of agrarian enterprises actively adopts advanced international experience both in the field of production and processing, logistics, etc.;</td>
<td>- the legal framework is imperfect and has many &quot;bottlenecks&quot;;</td>
</tr>
<tr>
<td>- introduction of electronic commerce;</td>
<td>- imperfection of production and market infrastructure, with a low level of development of its marketing component;</td>
</tr>
<tr>
<td>- one of the highest levels of profitability in the world;</td>
<td>- being significant players on the international grain and oil markets, Ukrainian commodity producers practically do not influence pricing in relation to them.</td>
</tr>
<tr>
<td>- a high share of the export of agricultural products in the national dimension;</td>
<td></td>
</tr>
<tr>
<td>- the presence of various industry associations and representatives in legislative and executive bodies, which provides opportunities for lobbying interests.</td>
<td></td>
</tr>
</tbody>
</table>
Threats
- constant level of inflation;
- loss of resource potential due to the outflow of personnel and deterio-
  ration of the quality of land resources, which will lead to a decrease in
  its productivity;
- permanent deficit on the market of certain types of resources;
- existence of miscalculations in legislative, organizational and
  other areas of sector regulation;
- degradation of the agrarian sector due to a decrease in
  profitability and curtailment of production of certain types of products;
- low level of income of the population and a drop in the
  solvency of domestic demand;
- further intensification of business.

DISCUSSION
The obtained results of this study differ from the conclu-
sions of I. Gorbacheva (2016) regarding the most nega-
tive impact on the activities of agricultural enterprises of
the social environment and N. Sirenko & K. Mikulyak
(2020), who identified the economic environment as
the most threatening. This is due to a radical change in
the operating conditions of Ukrainian agricultural en-
terprises during the active phase of the war with the
Russian federation. The conducted analysis showed that
it is the war that generates most of the problems in
the economic environment, which, in turn, cause nega-
tive trends in the social environment. However, the au-
thors of this study fully share the opinion of M. Nehrey
& O. Trofimtseva (2022), who, based on the results of
the analysis of the agricultural sector of Ukraine during
the war, believe that new challenges create not only
difficulties, but also open up new opportunities for the
Ukrainian agricultural sector.

As was substantiated in this paper, all factors of the
external environment are mutually determined. There-
fore, conceptually, one cannot agree with the greatest
estimates of the influence of the economic factors of
the environment, given in the work of V. Khodakyvskyy
& M. Mysevych (2017), devoted to the analysis of the
functioning of agricultural enterprises in the context
of their economic efficiency. This approach corresponds
to their equal importance for the development of ag-
ricultural enterprises, which was used in the study of
N. Sirenko & K. Mikulyak (2020), aimed at substanti-
ating the methodological toolkit of strategic analysis
and developing recommendations for the development of
the agrarian sector of the Ukrainian economy in chang-
ing environmental conditions.

Agreeing with the list of factors of external influence
on the development of the agro-industrial complex (APC)
of the regions given in the work of M. Dergaliuk (2017),
it can be noted that some of them have lost their relevance
precisely because of the dynamism of the external envi-
ronment over time. These are, for example, the once-curr
ent WTO restrictions on entering the world market for
Ukraine's agro-industrial complex products, or the possi-
bility of an increase in aggregate demand for domestic
agro-industrial complex products in the regions at the
expense of population income growth.

The conclusion of the work based on the results of
the SWOT analysis confirms the position of G. Pruntseva
(2021), who, analyzing the problems of the institutional
mechanism of food security, determined that the exist-
ing formal and informal institutions need significant re-
form and improvement, as they should ensure the stim-
ulation of production, the competitiveness of Ukrainian
products as on domestic and foreign markets, financial
availability of agricultural products for citizens.

Therefore, the dynamism of the external environ-
ment of the functioning of agricultural enterprises de-
termines the actualization and growth or reduction of
the influence of its individual factors on the effective-
ness of their activities.
CONCLUSIONS

The transformation of the operating conditions of Ukrainian agricultural enterprises during the active phase of the war with the Russian Federation forced business and government officials to take a number of adaptation measures to continue production and sale of products not only for the sake of domestic food security, but also to satisfy external demand, filling the critically short state budget. The PEST analysis of factors of external influence on the development of agricultural enterprises showed a mostly positive influence of political factors, which is due to the consolidation of business, the state, partner countries and international organizations in creating prerequisites for the preservation of Ukrainian agricultural production. It can be predicted that in the post-war period, the level of support for agrarians will decrease somewhat, since the vast majority of institutional measures adopted during the active phase of the war were of a temporary reactive nature. The most unfavorable are the economic conditions for conducting business, the complex effect of which leads to a significant increase in the cost of production and the unpredictability of opportunities for obtaining profit from its implementation, which is also confirmed by the results of a survey of agricultural producers, according to which among the factors that complicate the conduct of agricultural business, from 2022, significantly the impact of insufficient demand increased. Social factors affect agribusiness in different directions, but in the post-war period, it is possible to predict a gradual solution to the problems of forming personnel potential and raising the level of citizens' incomes. Among the technological factors, the problem of the loss due to military actions of a part of land, production, processing and logistics resources and the deterioration of the ecological condition due to the reduction of quality requirements for some of the resources used in agricultural production will retain their negative influence in the long term. The SWOT analysis revealed that in the conditions of post-war recovery, it is not enough to quantitatively restore the volume of Ukrainian agricultural production. Ensuring the long-term growth and competitiveness of its products requires directing limited investment resources to increase the volume of production of organic food products, the development of primary and advanced processing of agricultural raw materials inside the tap, which will allow enterprises to receive higher incomes, contribute to the growth of employment of the population and, as a result, increase revenues to the state budget. Prospects for further research are the substantiation of the parameters and mechanisms of structural transformations of the agricultural sector of Ukraine, taking into account the challenges of the external and internal environment of its functioning.

ACKNOWLEDGMENTS

None.

CONFLICT OF INTEREST

None.

REFERENCES


Анотація. Аграрний сектор України до повномасштабного вторгнення РФ динамічно розвивався і відігравав провідну роль у забезпеченні внутрішньої та глобальної продовольчої безпеки, зайнятості населення, формуванні валютних надходжень від експорту продукції та доходів державного бюджету. Активна фаза війни на території країни кардинально змінила умови функціонування агропідприємств. Метою статті є характеристика та оцінка впливу окремих елементів зовнішнього середовища на діяльність агропідприємств. В основу дослідження покладено діалектичний метод пізнання економічних процесів та використано методи: монографічний, абстрактно-логічний, PEST – аналізу, SWOT-аналізу. В дослідженні було проаналізовано праці українських науковців щодо проблем функціонування аграрних підприємств та виокремлено основні політичні, економічні, соціальні й технологічні чинники впливу зовнішнього середовища на їх діяльність в умовах воєнного стану. Встановлено, що політичні фактори середовища впливають на діяльність агропідприємств переважно позитивно, економічні фактори здійснюють переважно негативний вплив на них, а соціальні і технологічні різноспрямовано. Оцінка основних сильних і слабких сторін, можливостей та загроз середовища агропідприємств показала наявність передумов для кількісного зростання валових обсягів їх виробництва та необхідність розроблення цільової стратегії аграрної політики для довгострокового зростання в умовах повоєнного відновлення, ключовими завданнями якої повинні бути екологоорієнтоване природокористування, розвиток дуальної освіти для підготовки висококваліфікованих робітничих кадрів, нарощування обсягів виробництва та експорту органічних і готових харчових продуктів, техніко-технологічна модернізація виробничої бази. Запропоновано пріоритетне стимулювання інвестування в нарощування обсягів виробництва органічних продуктів харчування, розвиток переробки й поглибленої переробки сільськогосподарської сировини всередині країни. Практичне значення дослідження полягає в тому, що його результати можуть бути використані державними інституціями, відповідальними за розвиток аграрної сфери, при розроблені стратегії її розвитку та обґрунтованих заходах з її реалізації, агропідприємствами – при розроблені маркетингових стратегій, науковцями – при подальшому дослідженні проблем впливу зовнішнього середовища на розвиток агровиробництва

Ключові слова: аграрна сфера економіки; продукти харчування; чинники зовнішнього середовища; воєнний стан