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#### **ECONOMICS**

## INNOVATIVE LAND MANAGEMENT IN THE CONTEXT OF THE CONCEPT OF SUSTAINABLE DEVELOPMENT

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Annotation. Modern approaches to the organization of innovative land management in the context of the concept of sustainable development are considered. Current trends in the development of land management and the mechanism for strengthening its potential are updated. The author's vision of the management of land resources in Ukraine in the period of crises and bifurcations, post-war recovery of the agro-food sector and rural areas is presented.

Keywords: innovations, land management, sustainable development, mechanism, potential.

**Formulation of the problem.** The concept of the long-term development of agricultural land use is a comprehensive and rather in-depth consideration of land use over a certain period, the production state of the agricultural sector of the economy and the forecast of its development in the distant future. In Ukraine, a significant amount of legislative and executive administrative work has been carried out, in particular, regulatory and legal acts on reforming land relations have been adopted. The main goal in the concept of prospective land use is the development of local and regional programs for the development of rural areas, which will include issues of land resource management with the aspect of achieving minimization of conflict situations in land use.

Analysis of recent research and publications. We believe that the conceptual provisions should include a list of quite specific issues, in particular, ways and means of solving existing problems in the agrarian sector of the economy, the implementation of social standards and norms in rural areas, the development of entrepreneurial activity, transport connections and communication on villages, improvement of engineering infrastructure; development of housing construction and communal services, education and medical care, traditional culture of certain regions of Ukraine. A systematic approach to conceptual provisions also involves improving household services for the rural population, trade; creation of conditions to encourage young people to work in rural areas; state support for the development of depressed rural areas, financial support for measures for the development of the social sphere. In addition, it is necessary to solve the issue of food security and food independence of the country; land management and state land cadastre; protection and improvement of soil fertility, greening of agricultural production; improvement of the land monitoring system [1-10]. These issues require systematic research.

Setting the purpose and objectives of the study – to investigate innovative land management in the context of the concept of sustainable development.

The main research material. The considered concept also includes such important aspects as further land reclamation; formation of the agricultural land market, development of material and technical resources and services for the village, infrastructure of the agricultural market and its state regulation; support of agricultural producers. In addition, the core of the concept, taking into account the conditions of globalization, is "overgrown" by such processes as the formation of the agro-economic image of Ukraine in the world environment, the further development of organizational and legal forms of management and foreign economic activity; financial support of the agricultural sector, investment and innovation model of its development; improvement of the system and mechanism of taxation in agriculture, reform of the management system for the agrarian sector of the economy; further development of professional education, agrarian science, counseling and a number of other points regarding the systemic view on the formation of the concept regarding prospective land use [8].

The basis of the conceptual provisions of prospective land use in the conditions of globalization is the provision of information about the land fund with an analysis of the quality of the soil and the economic and ecological assessment of the land, the state of reforming land relations with data on the distribution of land by landowners and land users and branches of agriculture, as well as the level of their land security; possible qualitative and quantitative changes in land use.

A systematic approach to solving socio-economic and environmental problems of reforming land relations, formation and regulation of the land market, determination of the market price for land. By documenting the facts of violation of ecologically safe land use in order for agricultural producers to obtain the maximum economic profit from a plot of land, for example, violation of agricultural technology, depletion of the soil due to a decrease in the application of organic fertilizers, an increase in the sown area of soil-depleting crops, in particular, sunflower, the state can act as the initiator of the termination of lease agreements.

Today, the global economy shows a trend of a very significant increase in demand for agricultural products, and accordingly, an increase in the value of land resources. In a logical sequence, the problem of ensuring environmental safety of agricultural production appears. The arable land of Ukraine includes more than 9 million hectares of acidic and 2.8 million hectares of saline soils. Therefore, it is impossible to achieve a high level of agricultural productivity without large-scale chemical reclamation works. To increase the fertility of such soils, it is necessary to lime 1.9 million hectares and plaster 0.5 million hectares annually. In order to solve this problem, it is necessary to have funds for financing chemical land reclamation. In addition, in the system of the agro-industrial complex, one should create its own industry for the production of chemical meliorants based on the construction of shops for the processing of local carbonate rocks [4].

The land is also polluted by harmful emissions from industrial and energy enterprises, transport, agrochemicals, and municipal waste. Soils are destroyed by

mining enterprises, filled with dumps, etc. These circumstances lead to an unsatisfactory ecological condition of both the land fund and the surrounding natural environment. In general, the degradation of agricultural lands has taken on a threatening nature for food security, which, in addition to our country, affects the economic, ecological and social situation in other countries as well.

The need for biologicalization of agriculture arose due to the fact that the existing volumes of traditional organic fertilizers in Ukraine are not enough and agriculture has been working on declining fertility for centuries. It is advisable to apply the following measures in order to expand the reproduction of the soil fertility of Ukrainian enterprises. First of all, you can use opportunities aimed at finding reserves of additional organic fertilizers. The most realistic of them are the use of the non-marketable part of the harvest, in particular, straw, stalks, chaff, products of bioconversion of organic waste, as well as the earning of crops of cider crops. In addition, there are measures that increase the humification rate of organic fertilizers, in particular, observing the proper depth and method of applying fertilizers to the soil and creating an optimal reaction of the soil environment for humification. Scientific studies show that the highest humification coefficient was observed when organic fertilizers were applied to the top layer of the soil to a depth of up to 10 cm and the reaction of the soil solution was close to neutral. There are measures that support the optimal ratio between organic and mineral fertilizers. It should be noted that when more than 15 kg of the active substance of mineral fertilizers are applied to one ton of manure, dehumification of soils and their agrophysical degradation begins. This ratio between organic and mineral fertilizers was found empirically on the basis of systematic observations and was called the biologization coefficient of agriculture [1].

It should be noted that there is a direct relationship between the biologization coefficients of agriculture and the humification of organic fertilizers, i.e. the higher the biologization coefficient, the higher the humification coefficient of organic fertilizers and the faster the expanded reproduction of humus and potential soil fertility is achieved. At the beginning of the 20th century, biologization rates were very high in our country, but crop yields were very low. According to statistical data, peasant farms of that time harvested 5-7 t/ha of grain on chernozem soils, because they applied little organic fertilizers and did not apply mineral fertilizers at all. It was biological agriculture, but at a very low level of development [3].

Organic farming involves, first of all, an increase in the level of its biologization due to the optimal ratio between organic and mineral fertilizers. In addition, weather and climate conditions, types of soils that prevail in this agricultural enterprise, as well as the existing balance of humus should be taken into account. In this regard, agrochemical certification of fields at an enterprise that intends to switch to organic farming should be considered as the very first and mandatory step to improving soil quality. Composts are considered the best soil support when introducing organic farming. Nutrients are contained in them in the most favorable form for agricultural plants. Composts are prepared from various plants, in particular, yarrow, nettle, chamomile, oak bark, valerian,

etc. Thanks to microflora and vermibiota, i.e. worms, compost is a kind of concentrate of soil life, a kind of leaven that activates life processes in the soil. The soil, fertilized with compost, provides all the opportunities for the growth of healthy, full-fledged agricultural plants. Composting should be carried out using special biodynamic preparations. The introduction of mineral fertilizers has a significant drawback - it deprives plants of the ability to regulate the supply of nutrients themselves. Mineral fertilizers oversaturate and stimulate increased growth of the vegetative mass of plants. Overgrown leaves and stems, as well as large fruits become poison for consumers of agricultural products, a place of accumulation of pests and diseases, and are also poorly stored [7].

Conceptual provisions of prospective land use in the conditions of globalization provide for the issue of correct rotation of agricultural crops. As you know, some crops deplete the soil, while others enrich it. As a result, it is necessary to pay special attention to the neighborhood of agricultural plants, the presence of soil microorganisms, conducting correct crop rotations, as well as randomized, i.e. alternating plantings. With skillful selection and rotation of agricultural crops, there is a rational and natural use of nutrients in the soil, protection of cultivated plants from many risks is ensured. Biodynamic preparations are an important component of organic farming. Biodynamic drugs are complex natural substances. They are prepared from natural products and used to increase the sensitivity of agricultural plants and soil organisms.

Biodynamic drugs are a kind of stimulants of organic origin. The soil is sprayed with biodynamic preparations before or after sowing seeds or planting agricultural plants. Biodynamic preparations are used to activate the growth of roots and vital activity of soil organisms and to spray the leaves of agricultural plants in order to improve the quality of the grown products. Biodynamic drugs do not increase the yield, but they improve its quality, protect plants from various diseases and pests, and extend the shelf life of agricultural products. Biodynamic drugs are used in homeopathic, that is, very small doses. For the purpose of their preparation, natural, vegetable and animal materials are used together. Therefore, the concept of sustainable land use requires a change in the traditional practice of applying nutrients to the soil. Composts and biodynamic preparations become a priority in improving soil quality [6].

The conceptual provisions of prospective land use in the conditions of globalization also envisage the use of microbiological preparations in organic farming. Microbiological preparations play a major role in the process of forming crop yields. Bacteria that inhabit the roots of plants, form the so-called rhizosphere, are mediators between the soil and agricultural crops. Microorganisms, which have already been proven by science, are responsible for the transformation of a number of complex compounds into simple and accessible ones for plant nutrition. In the biological system "soil - microorganisms - agricultural crops", soil microorganisms are an irreplaceable and integral component. Each agricultural plant, surrounded by a complete set of microorganisms, receives the necessary root nutrition. Thus, it realizes its genetic potential in terms of productivity [2].

Today, certain microorganisms, which have always been considered indicators of fertility, are on the verge of extinction. In this case, the young roots are inhabited by atypical microorganisms that compete with agricultural crops for nutrients. As a result, even with sufficient mineral nutrition, agricultural crops do not provide a full harvest.

Globalization through external demand gives rise to another phenomenon in agriculture - introduction. Introduction refers to the process of transferring to a certain area such species and varieties of plants that were not previously grown here. It should be noted that during the introduction similar conditions are created. To be specific, such agricultural crops as soybeans, ginseng roots, goat's milk, Chinese lemon tree, when grown in their traditional soil and climatic conditions, form an active nitrogen-fixing symbiosis with nodule bacteria, forming morphologically pronounced structures on the roots, in which the Nitrogen release coming from the atmosphere. In case of cultivation of these agricultural crops in new territories without carrying out pre-sowing bacteriization, it is impossible to ensure their nitrogen nutrition due to the so-called "biological" nitrogen. The absence of the necessary nitrogen-fixing bacteria in such conditions reduces the value of these agricultural crops as nitrogen accumulators to the level of nitrogen-consuming plants. As a result, there is a need to use agricultural techniques aimed at increasing the number of agronomically valuable microorganisms in soils [5].

Inoculation involves the process of applying seeds of bacteria and fungi to the surface in the form of a preparation of microbiological origin. Thus, pre-sowing inoculation is a fairly significant agrotechnical method of growing agricultural crops in relation to the concept of prospective land use. Conceptual provisions in this case reflect the achieved level of scientific and technical progress, which finds its direct practical application in agronomy, agriculture, crop production, that is, in prospective land use in relation to the conditions of globalization of the economic development of enterprises of our country [7].

It is necessary to imagine well that during the application of microbiological preparations of soil fertilizing action, it is necessary to take into account that each of them is created on the basis of microorganisms specific to a certain type of agricultural plants. In this regard, the effectiveness of a specific biological preparation for a certain plant does not guarantee the same effect when applied to another plant. Unlike preparations of physiological action, i.e. plant growth stimulators, trace elements, etc., microbiological preparations are used for pre-sowing or pre-sowing treatment of seed material. The use of drugs during the growing season will not harm the plants, but will not provide an effect either. The introduced microorganism occupies up to 99 percent of the microbial pool of seed epiphytes. And in this case, a beneficial microorganism has every chance to win in the competition with other soil microorganisms and form a full-fledged micro-community association or symbiosis. It should be noted that during the application of drugs during the growing season of agricultural plants, the beneficial microorganism needs to take over the already occupied niche. At the same time, the ratio between the introduced microorganism and the indigenous microflora will not be in favor of the introducer. In order for a useful microorganism to be able to penetrate through the formed bacterial "barrier" in the environment of agricultural crops and occupy a dominant position, it is necessary to apply hundreds of times larger doses of drugs than for pre-sowing inoculation [3; 11-13].

Creation of optimal conditions for the growth and development of agricultural crops is an integral condition of biological preparations in the field of soil fertilization. Scientific studies have established that bacteriization cannot completely replace fertilizers. It

should be emphasized that the effectiveness of pre-sowing inoculation increases against the background of low doses of fertilizers. This circumstance is explained primarily by the fact that in the initial period of the development of agricultural plants, they cannot yet form a full-fledged active symbiosis or association with microorganisms, therefore it is advisable to ensure a known level of soil fertilization. The higher efficiency of bacterization when providing agricultural plants with NPK from organic fertilizers is also explained by the significant influence of microorganisms on the assimilation coefficients of organic and mineral fertilizers. For example, in the case of the use of biological preparations, it is recommended to reduce the doses of organic fertilizers by an average of 40% [8].

The conceptual provisions of prospective land use in relation to the conditions of globalization assume that to protect plants from pests and diseases, biological preparations should be widely used, the basis of which are living, existing in nature, cultures of microorganisms or their metabolites, which is safe for the environment, in particular, for agricultural land, human, animal, etc. In organic farming, it is recommended to use such types of biological preparations as viral, fungal and bacterial preparations. In contrast to chemical insecticides and fungicides, i.e. directed against insects and diseases with general exterminating properties, the effect of biological preparations is selectively aimed at reducing the number of harmful species and maintaining their number at a safe level [10].

Biological preparations are environmentally safe, not harmful to the soil, people, animals, etc. The general advantage of biological agents is that they do not accumulate in agricultural, or more precisely, plant products. These circumstances make it possible to obtain clean, especially suitable products for baby food. First of all, biological preparations should be used to protect vegetable and fruit crops in open and protected soil, the products of which are used fresh. An average of 275 types of weeds are found in crops. They are dangerous not only in their variety, but also in their ability to reach a fairly significant number in a short period of time. As a result, the development of agricultural crops is suppressed, which leads to a significant decrease in their productivity. In organic farming, the main method of weed control is their mechanical destruction [1].

The concept of perspective land use, of course, takes into account all the features of weed control, including advanced agrotechnical and other methods of weed destruction, as well as the use of a wide range of achievements of scientific and technical progress in these matters.

Conclusions. Thus, the concept of prospective development of agricultural land use is an analysis of the relationship between people and nature with a forecast of future development. In an effort to satisfy their numerous needs, people increasingly begin to exploit the ecological system, using the most advanced, modern means of influencing the ecosystem and biosphere with clearly negative consequences for nature and the environment. In order to ensure an increase in the yield of agricultural crops, enterprises, that is, agricultural producers, conduct a whole system of agronomic measures and bring negative changes to the qualitative indicators of land resources, which lead, first of all, to their pollution.

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## THE PECULIARITIES OF ECONOMIC SECURITY MANAGEMENT OF AGRO-FOOD ENTERPRISES

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Annotation. The article elucidates the most essential aspects of economic security management at enterprises in the agro-food sector. In particular, the economic security of an enterprise is interpreted as ensuring such a state of its functioning, which allows to achieve a positive socio-economic effect by obtaining higher profits and meeting the needs of both consumers and employees of the enterprise. The article argues that the economic security system protects the enterprise from external and internal threats, ensures reliable preservation and effective use of its material and financial potential.

**Keywords:** management, enterprise, security, economic security, danger, risk, management of economic security.

To ensure the country's economic security in the conditions of globalization of the political and economic processes in the modern world, the economy of Ukraine needs to maintain an optimal relationship between the openness and transparency of the economy and the protection of national interests. The changes that are taking place have given rise to new approaches in the sphere of political and economic relations between the countries of the world community. In these conditions, ensuring the all-encompassing security of the state is closely related to the solution of the above tasks. Ukraine, like some other countries of the world, is trying to get rid of its dependence on the large economies of highly-developed countries and aspires to become a full-fledged subject of the international community. The goal is quite challenging at the current stage of state formation in Ukraine. The uncertainty of the state policy in the main spheres of activity for thirty years and the reluctance to ensuring the harmonious development of various aspects of activity are the basic factors that threaten the existence of an independent state.

Analysis of the current state of the Ukrainian economy indicates the presence of serious problems in the activities of individual business entities. The deterioration of the socio-economic situation and differences in economic development make the issue of ensuring the economic security of enterprises extremely urgent.

The agri-food sector ensures the security of the state in its several domains. First of all, it concerns the realization of our potential advantages in worldwide competition in solving global issues of food, environmental, and energy problems and thus, strengthening the economic potential and might of our native state. The modern development of market relations requires an urgent solution to problems in the field of agricultural production, which is the basis of the agro-food market. The most urgent issues concern the matters of increasing production efficiency and the level of competitiveness of the products of domestic agricultural producers, taking into account the state of their economic security [1].

Currently, the agro-food sector is a real driver of the national economy and a guarantor of Ukraine's economic independence. It is a specific branch of the state's economy, the development of which has a significant impact on the living standards of the Ukrainian people. The dominant feature of agricultural production is the factor that in agriculture land is the main, irreplaceable, and irreproducible means of production. Therefore, its results mainly depend on the quality of the land, its fertility, and its location. That is why the management of economic security of agro-food enterprises has not only a purely economic significance but also a deep social impact.

Ensuring the security needs of all enterprises, regardless of their ownership and scope of activity, is not an exclusive prerogative of some particular department, service, or group of people. Safety can be guaranteed only by using the entire arsenal of forces and protective equipment and having deep understanding of the importance of safety issues in all structural divisions of the enterprise.

It should be noted that economic security is the provision of such a state of the enterprise functioning, which ensures the achievement of a positive economic effect by making profits and satisfying the needs of consumers. [9]. The main goal of enterprise's economic security is the guarantee of its stable and effective functioning now and in the future. An enterprise can achieve this if the system performs a sequence of the following functions: analytical, organizational, normative-legal support, administrative, planning, accounting-controling, and informational [8].

The current state of the enterprise's economic security depends on how effective it is to counteract existing and potentially possible negative factors. These factors traditionally are divided into external and internal:

- external factors: the current state of the target market, fluctuations in the market situation, unfair competition, reputational losses on the part of third-party entities, industrial disasters, accidents, natural disasters;
- internal factors: personnel actions, leakage of information, loss of information resources, violation of control procedures, negligence, sabotage.

Specific threats to economic security, arising as a result of the above factors' influence, may be different by nature and have various ways and means of manifestation. As a rule, they are determined by the branch specificity of a particular enterprise's activity. The level of economic security of the enterprise depends on how effectively its management can prevent the emergence of internal and external threats and eliminate the harmful consequences of certain negative components of the external and internal environment.

The general meaning of the concept of a threat to enterprises in the agri-food sector is to be clarified given the objective specific conditions of the industry. Agriculture differs from other branches of the national economy by its greater dependence on weather and climate conditions, features of the production process, features of personnel potential, and, as a result, the threats to enterprises in this industry are also specific [3].

Thus, it appears that the main factor influencing the development and efficiency of agro-food enterprises is at the same time one of the principal threats to it. The yield of crops largely depends on the weather conditions of the current year.

In modern economic conditions, farmers must take into account the factor of uncertainty in the enterprise's activity, possible risks, and threats to its economic security, with a focus on their specific features.

As the Ukrainian experience of previous years shows, the main threats to the development of the agro-food sector in the crisis period arise, first of all, due to a decrease in the income of the population and, as a result, a decrease in the solvent demand for food, which provokes the narrowing of the national food market. Consequently, this provokes a decrease in producers' incomes and even the closure of production [5].

Having summarized the factors that influence the level of economic security of agro-food enterprises which can be calculated in quantitative terms, we grouped them into three basic groups (fig. 1).

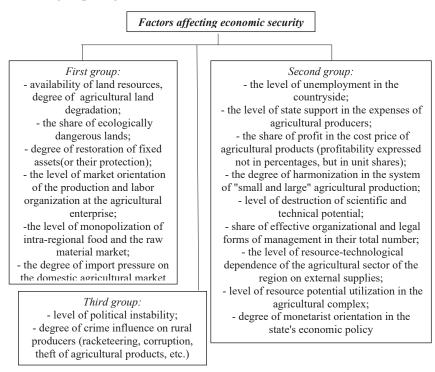


Fig. 1. Factors affecting the economic security of agro-food enterprises

Thus, early identification, prevention, and neutralization of various types of factors and threats that destabilize the activity of the enterprise and threaten its economic interests, design of an effective system of economic security, search for appropriate mechanisms and tools of its effective functioning should become target tasks in the activity of every enterprise.

Agrarian reforms, the formation of market relations, and changes in the forms of ownership and types of management significantly increase the unpredictability of socio-economic processes in agriculture and, accordingly, increase the impact of risks on the agrarian business. The effect of macroeconomic decisions on the activity of each agricultural producer increases with the reforms. We argue that the agrarian reform itself is a risk factor [2].

The rational use of the economic resources necessary for an agri-food enterprise to fulfill its agrarian business mission can be achieved, first of all, by preventing threats of negative effects on security in the framework of the main functional goals of economic activity. It involves (fig. 2): [7]:

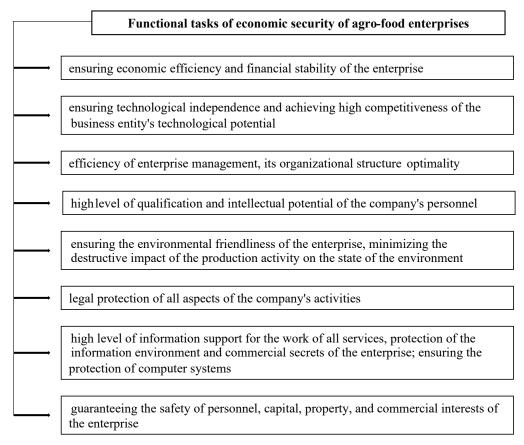


Fig. 1. Factors affecting the economic security of agro-food enterprises

The management of the economic security of an enterprise ensures the effectiveness of the enterprise activity as a whole, both in the current period of operation and for the long term. It is a fact of common knowledge that the effectiveness of management in any field of activity depends greatly on the formation of an integral system, which is designed to solve the main tasks of management. That is why a necessary condition for ensuring the viability of enterprises in a market economy is the formation of an economic security management system, which must be considered as a set of interconnected elements that are separated/independent from the environment and interact with it as an indivisible whole [6].

In Ukraine, in the relatively recent past, it was impossible to purchase land and pledge it to banks to attract money for investment. Europe's corporate system made it possible for farmers to form agricultural credit unions, which later became one of the largest banks in the world, to pledge their lands to banks and receive good money. Despite the lack of such mechanisms in Ukrainian companies, they still invested in land improvement. Anyway, the success story of the agricultural sector of Ukraine took place because the Ukrainian companies, not relying on state support, worked as vertically integrated companies throughout the supply chain and raised their standards. They were more transparent, introduced more modern technologies, and sought every opportunity to attract international capital. During the 2019-2021 period, the largest share in the sales structure of agri-food products of Ukraine accounts for vegetable products: 78.85% in 2019, accordingly, in 2020 – 79.11%, and in 2021 – 77.33%. Ukraine's economy, like many other economies in the world, has been severely affected by the outbreak of the COVID-19 epidemic. Overall, the GDP contracted by 11.4% year-on-year in the second quarter of 2020, bringing GDP down to 6.5% as compared to the first half of the previous year. However, the negative impact turned out to be less severe than it was originally anticipated, as the extended lockdown was only from March to early May 2020 and soon it was replaced by an adaptive lockdown that allowed many services to resume their work (except passenger transport). Internal consumption was also supported by a 'recovery' in real wages (+4.8% year-on-year in June compared to -0.4% in April) and owing to the continued inflows of remittances [10].

The economic security of an enterprise in the agro-food sector is interpreted as such a state of its economic resources which ensures a rational sectoral and organizational structure of the enterprise, taking into account the geographical location, natural and climatic conditions of its activity. Studies, dealing with the essence of economic security, emphasize the complexity of this concept meaning. It comprises several possible components of the economic security of a business entity.

It should be noted that in terms of the diversity of views on the structural and functional sets of components of the enterprise's economic security, according to some researchers, the basic set includes: financial, intellectual and human, technical and technological, informational and political, legal, logistical, energy, environmental, social, resource, market, and interface components. This classification seems quite logical, as it characterizes the most significant functional areas and elements of corporate activity.

However, the political, legal, market economy, socio-political, and interface components are more related to the aspects outside the economic security of the enterprise, so they can be used to identify risks and external threats. In addition, security functional components are often given the same meaning through different definitions [4].

The research into the nature of the enterprise's economic security has revealed that it is a complex category. It is determined by almost all indicators of state and the efficiency of corporate activity and requires a systemic approach to its assessment. And only a complex and systematic approach to the organization of the enterprise's economic security can ensure its reliable protection against possible threats and risks.

The study findings argue that agro-food enterprises have specific features of the economic security system formation, which are manifested via its basic components. Achieving a sufficient level of economic security for agricultural enterprises requires consideration of personnel, energy, market, information, legal, environmental, production, financial, and technical-technological aspects of security. The most essential component is personnel, as it provides an opportunity to intensify the work of other integral elements and has a complementary relationship. Systematic monitoring of all components of economic security involves the implementation of typical schemes, procedures, and actions, which allow agri-food enterprises to identify promptly the threats, develop preventive measures to neutralize them, and thus ensure the stable development of agricultural business entities in the future.

At agricultural enterprises, risks arise at all stages of their economic activity: sowing and maintenance of crops, harvesting, transportation, operation of technical means, attraction of investments, market infrastructure, employment of seasonal workers, and in many other cases. In addition, in agriculture, unlike other branches of the national economy, the factors of uncertainty or unpredictability quite often determine the security indicators. In most cases, this is caused by natural environmental factors that influence and determine the final results of management effectiveness. Therefore, to achieve the appropriate level of economic security, managers of business entities must consider the entire range of factors that affect and determine the effective development of the enterprise in conditions of fierce competition.

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# FOOD SECURITY MANAGEMENT AS A COMPONENT OF ECONOMIC SECURITY OF AN UKRAINIAN AGRICULTURAL ENTERPRISE

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Annotation. The article outlines the urgency of the ensuring food security problem of especially in the context of economic, political and military aggression. Given the approaches to defining the essence and role of food security, it was proposed to consider it from four aspects: as a form of food supply to the population of a certain territory; as an agricultural activity involving the use of innovative methods of agricultural production; as an element of ensuring the economic stability of the country; as a component of national and global security. The author defines the place of food security in the system of general security, the key factors that form it, and outlines a basic list of directions for improving the level of food security.

**Keywords:** agriculture, agri-food sector, economic security, food products, food security,, global economy, national economy.

Formulation of the problem. The current trends in the development of Ukraine and other countries, especially in the context of economic, political and military aggression, necessitate the formation of a reliable protection system in various fields of activity. Food security is no exception, as under these conditions it acquires not only national but also global significance, since economic, social processes, processes of ensuring trade in food products and their logistics determine the economic and sometimes national interests of international actors. In view of the above factors, we should also take into account the aspect that the food problem has long been a global problem, not just a problem of a particular state. It is also necessary to take into account the actors involved in ensuring food security, since the main one is the agri-food sector of the country, which is one of the vital sectors of the economy and supplies food, processed food and agricultural raw materials to the commodity market. Agricultural enterprises are complexly organized, multi-purpose, dynamic, open, probabilistic ecological,

social and economic systems characterized at the current stage of their development by heterogeneity of structural composition, diversity of inter- and intra- sectoral relations, and the presence of several functional and organisational subsystems. At the same time, in the context of the country's international integration and recurrent global economic processes, the sustainability of production in agricultural organisations comes first as the basis for food security, export potential, provision of food to the population and raw materials to industry, and, accordingly, economic security, which, in turn, is the basis of national security.

Analysis of recent research and publications. Trends in providing food products to the country's population indicate food security problems that arise due to the country's low level of economic development, the underdevelopment of its own closed technological cycle of agrarian production and processing, which was established in the low productivity of agricultural sectors, the use of mainly extensive factors in the management of the agro-industrial complex, lagging behind labor productivity in from a similar indicator in leading countries. In order to solve the mentioned problems and ensure food security, it is necessary to automatized and digitalized the production of agricultural products based on the introduction of innovative technologies, to conduct international trade effectively, and to update state support measures for producers in a timely manner. Today, for Ukraine, the primary tasks in solving the problem of ensuring the country's food security were increasing the efficiency of domestic agricultural production, developing the food and processing industry, improving the mechanism of state regulation of the agro-food market, as well as implementing a foreign trade policy appropriate to the interests of national producers, taking into account the conditions of martial law. For this purpose, it is necessary to strengthen the national security of the country by strengthening its food component as an element of the economic security of the state, since the latter in many aspects determines the country's defense capability.

Therefore, the purpose of this study is to:

- characterise the concept of food security;
- define the relationship between food security and economic security;
- defining the place of food security in the system of overall security;
- outlining the main directions of food security management of agri-food enterprises in order to improve its level.

Statement of the basic materials of the research. The subject area of the essence concept of food security forms a wide range of interpretations of its definitions. In general terms, food security is one of the national security' foundations and an important area of development of the economy' agricultural sector, as in the broadest sense it is seen as the permanent ability of the state, society and enterprises (including the agri-food sector) to stably provide the country's population with food in the amount and quality necessary for a full life, regardless of adverse external and internal influences [1; 3].

According to the definition of «food security» in international agreements, it is a state of the economy in which everyone was guaranteed access to food, drinking water and other products in a variety of assortments and volumes sufficient for the physical

and social development of the individual, ensuring the health and reproduction of the country's population [6; 10]. When studying the scientific national literature, food security was considered as a specific ecological, economic and social state of the state, in which the availability of food in the required quantity, assortment and appropriate quality fully meets the needs and accessibility of all segments of the population, maintaining the highest level of their health, regardless of the external and internal factor's impact [9; 15]. Since food security affects a number of social, demographic and environmental aspects of the country's life, it was also considered an integral part of national security [5]. Therefore, the group of authors believes that the main feature of food security was the provision of the country's population with basic foodstuffs in accordance with physiological consumption norms.

At the same time, there is a significant number of scientific works devoted to the definition of food security through the assessment of its economic indicators [5; 8; 11]. Therefore, the system of ensuring food security of the territory was associated with solving legal and socio-economic problems, protecting the economic interests of domestic producers, improving the financial and tax mechanism, modernizing technical and technological supply, state support for the agricultural sector, developing the food market infrastructure, forming human resources capable of mastering innovations, etc.

In addition, food security was associated with one of the strategic components of the state's national security, the provision of which was defined as the main priority of agricultural policy [2; 5; 7; 14].

Quite interesting is the approach of the authors, who define food security as the most important condition for preserving the sovereignty and independence, economic stability and social sustainability of the country, i.e. food security was also a factor in maintaining the conditions of national and regional food markets, which ensure a sufficient level of balanced nutrition of the population and effective development of foreign trade food and raw materials, strengthening the export orientation of the agro-industrial complex.

The concept of food security was considered through a system of market instruments, presenting it as a state of supply and demand for agricultural raw materials and food products, with supply ensured by national production and permissible volumes of official imports, as well as the creation by the state of conditions to ensure the physical and economic availability of food products in accordance with quality standards and physiological norms for all categories of consumers [4; 12; 13; 16; 17].

It was important to note that to ensure domestic food security, of course, a developed production sector that could produce competitive agricultural products is required, as well as the development of infrastructure in the fields of engineering and industry, and the production of mineral fertilizers and chemicals. Thus, the problem of food security was multifaceted, and therefore needs to be considered in a complex of related issues, as food self-sufficiency is influenced by many factors.

Summarizing these developments, it can be determined that in its economic content, food security covers four main components of the conditions for its achievement (Fig. 1), and the following should be considered the main generally

accepted basic criteria for food security:

- production by domestic producers of 75-80% of the main types of food products from the total volume of all products;
- consumption by the population of biologically complete products with the required level of calories;
  - creation of food reserves at the level of only 20% of total consumption.

It is determined by indicators of food security assessment:

- -level of self-sufficiency in agricultural products and food;
- -nutritional value of food consumed;
- -share of imports in food resources;
- -territorial accessibility of food products, etc.

Physical accessibility of food, i.e. the availability of food throughout the country whenever needed and in the required range

Determined by indicators:

- -the ratio of growth rates of monetary income and food prices;
- -polarisation of the distribution of cash income by social groups;
- -the share of food expenditures in total personal expenditures, etc.

Economic accessibility of food, which implies that every citizen should have a level of income that allows them to buy food regardless of their social status and place of residence

Key conditions for the formation and maintenance of food security

Sustainability of access to food, which is the guarantee of access to food for every citizen in the short and long term

It is determined by the following indicators:

- -level of guaranteed access to food for every citizen in the short term;
- -level of guaranteed access to food for every citizen in the long term.

Food safety, which is understood as an opportunity to prevent the production, sale and consumption of low-quality food that is harmful to public health

It is determined by the following indicators:

- volume of food products rejected by state authorities;
- -volume of food products banned by state authorities;
- -the number of overweight people.

Fig. 1. Key conditions for the formation and maintenance of food security [developed by the authors on the basis of 3; 4; 6; 12-15]

Practice has shown that food security was an important area not only for scientific research but also for public policy, as it is a powerful geopolitical factor and the main tool for ensuring the sustainability of the country's socio-economic processes. Therefore, it can be stated that food security is an independent area of security science, an element of the country's economic security and a component of national security. Accordingly, it was advisable to identify the following interrelated areas of formation of food security as a category:

- food security as a direction of providing food to the population of a certain

#### territory;

- food security as an agricultural activity that involves the use of innovative methods of agrarian production, processing and other processes (through digitalisation, automation, biotechnology, etc.) to provide the population with quality and sufficient food;
  - food security as a direction of ensuring the economic stability of the country;
  - food security as a component of global and national security (Fig. 2).

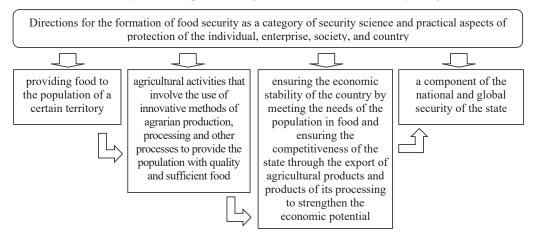


Fig. 2. Areas of food security formation as a category of security science and practical aspects of protection of the individual, enterprise, society, and country [developed by the authors on the basis of 1-6; 8; 10; 14-17]

Despite the fact that food security was distinguished as a separate element of national security, it should be noted that food security, being a socio-economic category, is also a direction of economic and social security. Therefore, it interacts with other types of security to form economic, and thus indirectly national and global security (Fig. 3).

Thus, food security should be defined as a system of economic, organisational, technological, social, environmental and other factors aimed at the stable functioning of the agro-industrial complex in order to meet the needs of the country's population with diverse, environmentally friendly and competitive food products in accordance with scientifically sound standards, create the necessary insurance reserves and export surplus products. At the same time, food security is the most important component of national and state security and characterises the economic and political independence of the country, its ability to meet the needs of citizens to ensure national and state security through the formation of strategic directions of agricultural policy.

As the areas of improving food security develop, the list of tasks to ensure it expands, including

 ensuring sustainable development of agricultural production, raw materials and food necessary to ensure food independence based on the principles of science-based

#### planning;

- intensification of innovation processes to ensure conditions for expanded reproduction of production in the agricultural sector;
  - state administrative, political and financial support of agri-food sector entities;
- ensuring the reliability, i.e. the ability of the national food system to minimise the impact of seasonal, weather and other fluctuations on the food supply of the country's population;
- timely forecasting, detection and prevention of internal and external threats to food security, minimisation of their negative consequences through constant readiness of the food supply' system to citizens, formation of strategic food stocks;
- ensuring the physical and economic availability of food necessary for the formation of a healthy diet for the population;
- production of safe agricultural products and formation of an appropriate level of food safety;
- realisation of the export potential, taking into account the priority of self-sufficiency of the country with domestic agricultural products, as well as the need to ensure food security;
  - development of rural infrastructure;

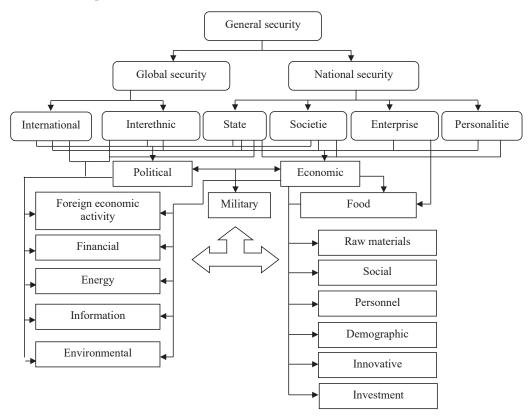


Fig. 3. The place of food security in the overall security system [developed by the authors on the basis of 1-4; 6-9; 11; 13; 15-17]

- improving the system of training for agricultural enterprises;
- formation of the healthy lifestyle's principles;
- development of fundamental and applied research in the field of agricultural sector development and formation of an effective system of food security management as an element of economic security.

Thus, ensuring the implementation of these areas of development of the agri-food sector will create a strong basis for improving food security, and, accordingly, will create preconditions for strengthening the country's economic potential, which in turn will affect the level of national and global security of the state.

Conclusions and recommendations. The importance of developing and implementing a strategy for the development of food security in the Ukrainian agro-food sector is due to the need to create favourable conditions for the development of domestic food production, introduction of high-tech technologies in the industry, reduction of dependence on imported food, transformation of the agro-industrial complex into a highly efficient, export-oriented stable sector of the national economy at the domestic and international levels.

In accordance with the objectives of the study, it was determined that food security should be considered as a socio-economic category in the system of economic, organisational, social and other factors that accelerate or slow down the development of the agro-industrial complex as a guarantor of food security, provide food to the population of a certain territory, and ensure the economic stability of the country by meeting the needs of the population for food and ensuring the competitiveness of the state through the export of rural products. Despite the fact that food security was distinguished as a separate element of national security, it should be noted that food security, being a socio-economic category, is also a direction of economic and social security. Therefore, it, interacting with other types of security, forms economic, and thus indirectly national and global security.

The article identifies a list of areas for improving the level of food security, including: development of agri-food sector entities, its innovation; state administrative, political and financial support for agrarian business; realisation of export potential; improvement of the personnel training system for agricultural enterprises; development of fundamental and applied research in the field of agricultural sector development and formation of an effective food security management system as an element of economic security.

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## LEGAL INNOVATIONS IN TAXATION OF THE AGRARIAN SECTOR OF THE ECONOMY

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Annotation. In the article, the authors reveal the peculiarities of taxation of the agrarian sector of Ukraine in the pre-war period and during the war, and compare it with the tax legislation of a number of European countries. The authors analyze the effectiveness of the current system and suggests ways to improve it. The authors examine the experience of taxation of agribusiness in developing countries, analyzes conceptual and practical problems associated with different tax regimes. This article examines the legal regulation of taxation of the Ukrainian agricultural sector of the economy, identifies the problems of regulatory regulation and suggests ways to optimize the tax burden on agricultural producers.

**Keywords:** taxation, tax policy, agribusiness, state support for agribusiness, agriculture, agricultural production entities.

**Introduction.** The agricultural sector is a strategically important segment of food security in most countries. The new challenges faced by Ukraine due to military aggression require innovations in the issues of state support for the agricultural sector in general and its taxation in particular. All means of state regulation of the agricultural sector should be primarily aimed at ensuring its successful development and efficient functioning. The development of Ukraine's agricultural sector requires solving institutional problems of agricultural production. The study of regulatory and legal sources shows that the state economic policy is implemented primarily through the mechanisms of tax policy, which has been subject to constant changes in recent years. Such variability of approaches to taxation is not a guarantee of investment attractiveness of the agricultural sector [1].

By its nature, the tax system is the most important instrument of state influence on agricultural relations, combining the entire system of relevant taxes. Thus, taxation of agricultural entities is a component of the state's agricultural policy as a whole. Taxes, provided they are of an optimal form and size, are more efficient and less likely to stimulate inflation than other government financial levers. At the macro level, the tax impact on

agricultural production is one of the most important methods of indirectly regulating the relevant type of prices.

The purpose and objectives of the study. The purpose of this article is to study the taxation of the agricultural sector in the system of implementation of Ukraine's economic policy, as well as to identify the advantages and disadvantages of the taxation system and to formulate recommendations on the choice of taxation system for agricultural entities.

To achieve this goal, the authors use general scientific and special methods: induction and deduction, dialectical method of cognition, theoretical comparison, method of system analysis, observation and synthesis.

**Literature review.** In the legal literature, agricultural taxation is considered in two ways.

Agricultural economists Kulawik, J., Lelong P.Y., Pavovska-Tishko J., Soliwoda M. [12] highlight the specifics of the agricultural sector (seasonality, spatiality, conditioned by biological and natural factors) as a distinctive, specific feature of this segment of the economy. Modern theories increasingly consider agriculture as an integral part of the economic growth process.

In most developed countries, tax reforms have been carried out to adapt legislation to modern economic realities. The intended effect was to simplify and reduce the number of taxes, lower their rates and broaden the tax base. Thus, Gruziel K. believes that the preferential taxation of agriculture is justified by the dependence of agricultural production on natural and climatic factors [2, p. 101].

At the same time, according to Rosieski R., an important aspect of tax policy is the taxation of agriculture as a method of state influence on producers in the food, chemical and a number of other industries in order to ensure budget revenues to fulfill its economic and social objectives. Tax systems play an important role in economic processes, influencing the state of the actors involved in the management process and stimulating the competitiveness of a particular country by, among other things, supporting the development of its selected economic sectors, supporting resource saving and household savings [19].

The specific conditions of agricultural activities contribute to the formation of numerous theories on the procedure and scope of taxation of this segment of the economy. The range of tax structures used depends on the contribution of agricultural production to the economy of a given country, climatic and natural conditions, the degree of technological development and the structure of the tax system [3, p. 7].

In practice, the European Union agricultural taxation model usually consists of two levies taxes on income, property, or property used for agricultural activities. The use of such models is justified by the specifics of agriculture, where the factors of production are of primary importance: land, labor and capital. Land is taxed in the form of a single land tax or several property taxes (usually on property). Labor and capital in combination with the land factor manifest as agricultural activity, and its result, i.e. income or revenue, is subject to taxation. Tax harmonization is a measure aimed at achieving relative uniformity of tax systems [4, p. 4005].

Orziak L. [18] defines tax harmonization as a decision between optional coordination

of national tax rules and their full harmonization in all EU member states. Full harmonization of tax systems is not the EU's goal, mainly due to the diverse national interests of individual countries. Such harmonization is aimed at minimizing potential distortions of the Community's common market. This may concern both rates and principles of determining the tax base.

In EU countries, the farmers are generally subject to the same tax rules as other social and professional groups. From the point of view of Wasilewski, M., Mądra-Sawicka M., Ganc M., Gruziel K., the agribusiness in the EU benefits from tax preferences based on the specifics of production, but also uses special solutions applied in non-agricultural sectors. Agricultural taxation systems focus mainly on taxation of agricultural income, agricultural property, goods and services [22].

**Results obtained.** From the point of view of agricultural activities, the role of the state is very important, both in regulating economic relations and in creating an institutional framework for improving the investment climate and encouraging investment activities of stakeholders. As a regulator of various social processes, the state plays an important role in taxation, thereby establishing a market equilibrium between agricultural producers.

In an attempt to regulate its tax system in a comprehensive manner without hindering market space, the state must simultaneously achieve fiscal, political, economic, social and other goals through taxation of the agricultural sector. The scale of the tax burden on agriculture as a type of economic activity is important for achieving a sustainable level of development in this sector. Therefore, the taxation of agriculture should be approached with full respect for the goals and economic interests of stakeholders [15, p. 16].

The problem of reducing the tax burden has been extremely relevant for a long time. However, tax cuts alone will only lead to a shortage of funds in the state budget revenues. Therefore, it is important to have a systematic approach to this issue and rules that are transparent, unified and adapted to the specifics of different areas and conditions of agricultural production, which are equally applicable to all agricultural entities. The most important issue is the fair distribution of the tax burden [6, p. 462].

This requires an active role of the economic and political authorities, which is expressed in the application of the necessary regulations in the process of establishing a balance in the agricultural market. Within the framework of economic taxation policy, the state plays the role of a regulator of national income distribution, a distributor of funds, a stabilizer of market fluctuations and a catalyst for economic growth [11, p. 478]. The tax system plays an important role in mobilizing financial resources of the society with its peculiarities and specific tasks performed at a certain stage [10, p. 82].

The formation and development of a market economy based on private property is accompanied by business expansion through reinvestment and the creation of small enterprises, the activation of various financial and credit institutions, which will lead to an increase in the number of real taxpayers in the future, as a guarantee of post-war recovery. Due to uncertainty or contradictions in tax legislation, relations between the state, represented by tax authorities, and small businesses as taxpayers are becoming more acute. Strengthening the financial and legal liability of taxpayers is based on the application of financial sanctions to offenders, which are measures of financial and legal

coercion. Such measures of state coercion are a necessary measure to ensure the rule of law, but only if tax procedures are clear, understandable and transparent.

The diversity of tax systems in EU countries allows for research and comparison of the conditions for the functioning and conduct of agricultural business. Different tax structures and different taxation rules for the same taxes lead to competition for production factors. In most EU member states, the existing agricultural taxation systems are the result of their evolution. Despite notable differences, the tax systems have many commonalities due to the nature and definition of tax as a historical category linked to the theory of statehood and private property [9, p. 473].

Taxation of agriculture is a specific area of tax policy, which is understood as a means of government influence on agricultural producers in such a way as to ensure budget revenues to achieve economic and social goals. If they are purely economic in nature, they relate, among other things, to the creation of material foundations for economic development and the welfare of society. Social objectives relate to the creation of conditions for: equal opportunities in obtaining employment and remuneration commensurate with qualifications, ensuring an adequate level of education, professional advancement and business potential. Tax policy can also have negative consequences, the extreme manifestation of which is a threat to the freedom of taxpayers (restriction of their subjective rights), depreciation of tax justice and, as a result, a decrease in the welfare of citizens [8, p. 159].

The current reality, the current political and economic situation in the world puts forward special requirements for ensuring food security of any state. One of the key tasks in the context of implementing the reform of agricultural business taxation is an effective tax mechanism as one of the institutions of a market economy, which allows, on the one hand, to solve the problem of increasing revenues to budgets of various levels, and, on the other hand, to promote the development of business entities both in the agro-industrial sector and in the economy as a whole [14, p. 24].

The weight of the agricultural sector in Ukraine's economy was quite significant in the pre-war period and amounted to about 9-13% of gross value added, which is one of the main budget-forming components of the national economy, accounting for about 20% of our country's budget in recent years and more than 25% of our exports. After the start of Russia's full-scale invasion of Ukraine, the Ministry of Agrarian Policy of Ukraine ("the Ministry") raised its harvest forecast in 2023 in view of better yields of major crops. As of the end of September, the Ministry estimated the future harvest of grains and oilseeds at 79 million tons. This is an increase of 7 million tons (+10% compared to last year). At the same time, initial estimates of the harvest were much worse (at 63-64 million tons), as the sown areas were reduced this year due to the mining of large areas. Exports of agricultural products, despite the shelling of port infrastructure, increased to USD 1.55 billion in August 2023 (against USD 1.29 billion in July).

At the same time, experts remain negative about the outlook for foreign trade in goods. The trade deficit has been increasing since the beginning of the year: up to USD 16.6 billion for 8 months of 2023, which is three times more than in the same period of 2022. Export logistics are limited. Russia intensifies shelling of ports and related

infrastructure in the Podunavlje region.

The extension of the agricultural embargo by neighboring EU countries will increase logistics costs and worsen the financial condition of agricultural producers in Ukraine. Therefore, the government is obliged to offer compensatory tax mechanisms for agricultural producers in order to preserve the industry. Ukraine's agricultural sector now accounts for about 60% of total merchandise exports, which in turn is a foreign currency inflow and a significant factor for the hryvnia exchange rate. In general, Ukraine and Ukrainian farmers are an important element and guarantor of global food security, so we can hope for financial support from international institutions in reforming farm taxation [16, p. 12].

Therefore, regulation of the taxation system should be the main function of the state in regulating the agricultural economy. The most developed countries practice differentiated taxation of agricultural producers. For example, in France, there are several taxation systems, and agricultural producers, organizations that are not engaged in retail trade and related activities, have the opportunity to choose a particular method of taxation that is most optimal for their business structure. All of this points to the need for more flexible approaches to the establishment of tax privileges and quotas in the agricultural sector of the national economy of Ukraine, especially in wartime and post-war. In particular, there are enterprises that pay 60-70% of the total tax payments, and there are those that pay from 5 to 12% (because they have found opportunities for tax evasion). Reducing the tax burden on all agribusinesses should have a positive impact on the economic growth of the agricultural sector and the Ukrainian economy as a whole [7, p. 238].

On March 1, 2021, the amendments to the Tax Code of Ukraine introduced by the Law of Ukraine No. 1115-IX of December 17, 2020 "On Amendments to the Tax Code of Ukraine on the Value Added Tax Rate on Transactions for the Supply of Certain Types of Agricultural Products" came into force. Such tax innovations have caused fierce debate among agricultural market participants and ambiguous expert opinions, as they can significantly reduce revenues and are aimed at promoting the development of large agricultural holdings [21].

In particular, it provides that the value added tax (VAT) rate should be reduced from 20% to 14% on the supply, export and import of certain agricultural products to Ukraine. These are primarily raw materials (wheat, barley, oats, rye, sunflower seeds, rapeseed, corn, flax, soybeans, sugar beets, cattle, etc.), which are mostly exported directly or through processing and mostly do not reach the final consumer in Ukraine. The most significant share of the above is raw materials for exported goods, which ensure Ukraine's leading position in the global agricultural markets and are the "fund" for ensuring food security in our country [17]. That is why it is considered more appropriate to change the VAT to final consumption goods or to agricultural products that are conditionally ready for consumption, such as fruits and vegetables.

According to the forecasts of scientists of the Institute of Agrarian Economics, if the current trends continue, in particular in domestic seed production, as well as against the background of reduced state support for domestic breeding, imports of foreign seeds to our country may triple, namely to \$1.5 billion, and eventually lead to the complete displacement of domestic varietal products from the market of seeds and planting

material, which in turn poses potential risks to Ukraine's food security in general and its export opportunities in particular [23].

The agricultural tax is applied in many EU countries and is an element of their tax system. A characteristic feature of the agricultural tax is that it is not tied to potential or actual agricultural income, but to agricultural activity. There are many different definitions of agricultural activity in EU legislation, but their common feature is the reference to the concept of economic activity and its link to the land used for agriculture.

The general principle is to consider the agricultural tax as an instrument of economic and tax policy, in particular by shaping the level of income received by farmers.

Due to the specifics of agriculture, designs are often used to reduce the tax burden borne by farmers. In the EU, farmers' incomes were initially taxed under the welfare scheme, with the average income determined based on their area or number of animals they own. Currently, the agricultural tax is differentiated by adopting different rules for determining the tax base or different definitions of income and expenses.

There are two models of agricultural taxation in the EU: the British and the Continental models. The British model is characterized by the taxation of agricultural activities, in principle by income tax, in the same way as non-agricultural economic activities are taxed. This model is used in countries with a high concentration of land owned by a small group of entities. It should be noted that land used only for agricultural activities is excluded from property tax [20, p.31].

The continental model is characterized by the taxation of agricultural activities in the form of a single contribution as an income tax. The model prefers to levy a single tax on both the assets used in agricultural production and the income derived from agricultural production. The continental model has two forms: simplified and mixed. In the simplified form, two taxes are applied: income tax and tax on land used for agricultural production. The mixed continental model also uses two taxes: income and land used for agricultural production. This model uses two different methods for determining income. The differences in the methods used are not due to the nature of the business. For small-scale agricultural production, simplified methods of determining income are applied (fixed deductible expenses, income assessment standards, cadastral income method). Then, for larger agricultural activities, real income methods are applied.

As a general rule, income from agricultural activities is subject to income tax, and deviations, if any, are related to decisions made by the national legislation of individual European countries to determine income [13, p.79].

In most EU countries, agricultural enterprises (farms) operate as family farms without a legal entity, and personal income tax is the dominant tax. Current decisions confirm equal treatment of farmers and other taxpayers in financial matters. This confirms that the attitude to agriculture as an economic enclave in European countries is unfounded. Given the specifics of agricultural production and its dependence on natural and climatic conditions, tax systems have preferential structures, such as the right to deduct the cost of losses incurred or capital expenditures from taxable income.

Simplified accounting is the most commonly used form of preferences in EU tax systems. Within the EU tax structures, support for agriculture is not limited to tax

exemptions, but also includes certain simplifications and improvements that motivate taxpayers, among other things, to increase their economic activity [5].

Conclusions. To summarize, we note that today the priority in the field of taxation of the agrarian sector of the Ukrainian economy should be the formation of a state position aimed primarily at: preserving the potential of the industry for the fastest possible pace of post-war reconstruction; introduction of a simplified and at the same time fair and transparent taxation procedure; taking into account the specifics and peculiarities of domestic agricultural business depending on military operations, mining of territories, natural and territorial component; addressing the need to update the active part of the material and technical base, taking into account the appropriate tax regulation of agricultural production (development of a simplified taxation mechanism, the so-called portfolio of benefits/preferences, etc.)

Given the importance of the agricultural sector in ensuring food security (and not only in Ukraine), tax administration in the domestic agricultural sector of the economy is extremely important and requires the development of a system of effective regulators and optimization mechanisms by the state. After all, state support of the agricultural sector is the key to its sustainable development and ensuring food security of the state as a whole.

In addition, the direction of such state support should primarily concern small agricultural enterprises and provide a proper investment and innovation platform for the development of the domestic agricultural sector.

Each of the taxation systems that can be used by agricultural entities has its advantages and disadvantages. It is necessary to take into account the conditions in which a particular enterprise operates. The analysis of the evolution of tax legislation on the taxation of the agricultural sector shows a decrease in the state's protective mechanisms for business.

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## INNOVATIVE ADAPTATIONS IN THE LAND MANAGEMENT SYSTEM

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Annotation. Innovative adaptations in the land management system were studied. The classification of factors affecting this system is presented. Factors affecting the land market are determined. The main factors of agricultural land pricing are systematized. An analysis of the positions of stakeholders in land relations was carried out.

**Keywords:** adaptations, system, innovations, land management, sustainable development, mechanism, potential.

Formulation of the problem. Rational land use means the maximum involvement in the economic circulation of all lands and their effective use for the main purpose, creating the most favorable conditions for high productivity of agricultural land and obtaining the maximum amount of products per unit area with the least labor and money costs. Land protection is a set of scientifically based measures aimed at eliminating excessive withdrawal of land funds from agricultural circulation as a result of industrial, transport, urban and rural construction and mineral extraction, prevention of flooding, waterlogging by means of hydrotechnical and reclamation construction, improvement of physical and chemical properties, destruction of poisonous chemical substances in them when using mineral fertilizers and means of plant protection against pests and diseases, prevention of soil pollution with industrial production waste, fuel and lubricants during agricultural work, protection against water and wind erosion, rational regulation of the soil-forming process in conditions of intensification of agricultural production and its industrialization.

Analysis of recent research and publications. The management of land resources of agricultural producers is a rather comprehensive category and includes, in particular, the transformation of the land fund, which began with the reform of land relations. The main goal of land reform in Ukraine is to create conditions for the rational use and protection of land through the development of various forms of land ownership and management,

the establishment of new land relations that would meet the requirements of a market economy and rational nature management. Rational use and protection of land resources include two groups of issues:

- 1. 1) protection of land from depletion and increase of its fertility economic group;
- 2. 2) protection against pollution and its prevention ecological group.

Rational use and protection of land are two interrelated processes aimed at increasing the productive forces of the land. They provide for:

- optimization of the distribution of the land fund between branches of the national economy and its use in each of them as efficiently as possible;
- optimization of the structure of certain types of land according to natural and economic zones and districts;
- development and implementation of a rational system of agriculture, which includes soil protection cultivation, fertilizers; liming of acidic and plastering of saline and saline soils, crop cultivation technology, crop rotation system, etc.;
- drainage of swampy and waterlogged lands and irrigation and watering of arid lands; prevention of flooding, waterlogging, waterlogging of lands, deterioration of their physical and chemical properties;
- wide use of soil microorganisms to create highly fertile and erosion-resistant soils;
  - development and implementation of a scientifically based onion growing system;
- development and implementation of a rational system of resettlement, development of rural and urban settlements, placement of channels for transferring water from high-water to low-water areas, large reservoirs, communication routes, power lines, oil and gas pipelines;
- development and implementation of ecological and economic land assessment and its use for planning the location and specialization of agricultural production, determining the volume of state purchases of crop and livestock products, production costs and profitability of agricultural enterprises, establishing correct, scientifically based prices [1-10].

**Setting the purpose and objectives of the study** – to investigate innovative adaptations in the land management system.

The main research material. Ukraine is characterized by an extremely high level of development of the land fund and plowed agricultural land. The structural imbalance of the land fund worsens the efficiency of land use and protection. The agricultural development of the land exceeds the ecologically justified norms.

For agriculture, the part of the earth called soil is of the greatest importance - a special natural formation, which is characterized by the features of living and non-living nature, formed as a result of the long-term transformation of the surface layers of the lithosphere under the joint and mutually determined influence of the hydrosphere, atmosphere, living and dead organisms. The use of land is accompanied by the transformation and change of its main natural original properties, the emergence of new ones. In agriculture, the transformation of land into arable land is effective. Plowing of areas previously covered

with grass vegetation, irrigation in arid regions and draining of marshes in humid regions, the resulting increase in arable land contributes to the effective growth of agricultural production and is accompanied by a deep transformation of the environment. Often these transformations become undesirable, going beyond the initial consequences [11-19].

Therefore, the economic benefit from the use of products of the chemical industry does not exhaust all the arguments in favor of increasing the rate of supply of modern chemical products to agriculture. There are a number of important factors that determine the limits of distribution and use of chemicals. The use of large doses of fertilizers can worsen the quality of products and groundwater, which leads to the pollution of nearby rivers and reservoirs. The use of mineral fertilizers made it possible to increase the yield of crops to a certain extent, but the further increase in their doses did not contribute to its growth, which is associated with a decrease in humus reserves in the soil. An increase in yield is impossible without improving the fertilizer application technology. Their uncontrolled use leads to environmental pollution, which threatens human health. Improper or excessive use of pesticides is especially dangerous. Moreover, some of them are transformed, that is, new toxic substances appear (secondary poisoning). It is impossible to assess all the consequences of exposure to pesticides due to the imperfection of research methods [3].

As conditions worsen due to air pollution and precipitation, soil erosion processes become more active. It is well known that 90% of soil erosion is caused by a change in such parameters as aggregateness, dispersion coefficient, volume mass, total content of dust and clay fractions, i.e. a complex of physical and mechanical properties of soils, individual components of which undergo changes under the influence of man-made air pollution and sediments This affects the state of the soil structure and the anti-erosion resistance of the soils. Enhanced erosion processes are especially characteristic of areas where the air is smoky by industrial enterprises. In large cities, there are some anomalies in the manifestation of local climatic factors, there are also differences in the wind regime: the average annual wind speed in large cities is 0.2-0.9 m/s lower than the norm.

Urbanized areas have their own microclimate, the formation of which is greatly influenced by large cities. This effect is manifested in an increase in the frequency and duration of heavy rains and heavy downpours. In pollution zones, due to a decrease in solar radiation, the soil receives 13-23% less heat, depending on the vegetation cover. Soil pollution by vehicle emissions, which contain a large amount of heavy metals, is significant. It was established that the average concentrations of all metals increase with the increase in the intensity of traffic and are ten times higher than the background level.

A decrease in the content of metals in the deeper layers of the soil indicates their arrival from the air with automobile exhaust. Near freeways, 5-20, 50-100, and 100-200 times more lead accumulates on the leaves of crops, grasses, and trees, respectively, than in enterprises located far from freeways. Deposition of solid particles occurs as a result of atmospheric precipitation, the action of gravity. The content of chemical elements in the soil affects their concentration in plants. It was established, in particular, that the concentration of lead in 1 kg of soil along a highway with a throughput of 1,650 cars per

hour per lane is up to 50 mg with a norm of 12-14 mg [6].

Transport pollution of the soil leads to a decrease in its fertility. In the conditions of a moderate climate near the sources of pollution, the grain yield decreases by 20-30%, beets - by 35%, beans - by 40%, 63 potatoes - by 47%. The issue of disposal of sewage sludge is very important, the total amount of which in Ukraine is 25 million m3 per hour, and in agriculture, about 150 thousand tons are used per year. More than 1,200 hectares of fertile land are occupied for the storage of sewage sludge, and this area is increasing every year. In Kyiv alone, the area covered by sewage sludge has almost doubled over the past 5 years and amounts to 196 hectares [3]. When using wastewater to irrigate fields, it is necessary to constantly monitor the content, the dynamics of the accumulation of salts in the soil, in order to take timely measures for land reclamation. According to the salt content, soils are divided into: non-saline (salt content 0.3%); slightly saline (0.3-1%); highly saline (2-3%); salt marshes (more than 3%). Saline soils include soils containing at least 20% of absorbed sodium from the absorption capacity, saline soils - 15-20%), moderately saline soils - 10-15, slightly saline soils - 5-10, non-saline soils - less than 5%. Significant differences in salt resistance indicators according to various authors are explained by different soil and climatic conditions in which plants grow, as well as by the fact that different varieties, zoned in certain areas, were studied. Yes, light sandy soils are more resistant to the negative impact of sewage on them. Long-term irrigation of sodpodzolic soils with industrial and domestic wastewater does not impair such properties as volume, transparency, water permeability, strength of the plow layer, acidity, and improves the biological activity of soil microflora. The agro-ameliorative condition of soils does not deteriorate from the use of wastewater from sugar mills for irrigation. In Ukraine, about 200 million m3 of such effluents can be used in agricultural production, which can be used to irrigate an area of about 70,000 hectares [6]. The creation of large reservoirs in the conditions of a plain river causes a sharp change in the hydrological conditions in the adjacent territories.

The organic and biological system of agricultural production, which has gained active development in the world since the 70s of the XX century, is based on the maximum use of crop rotations, manure, composts, plant residues, leguminous and leguminous crops, siderates, organic waste from agro-industrial production, mineral raw materials. Biological methods of weed and pest control and aimed at increasing the fertility of soils, improving their structure while simultaneously ensuring full nutrition of agricultural crops.

Fertility can be regulated with the help of more advanced soil treatment, which helps to reduce the rate of mineralization of humus. For example, reducing the depth of loosening and the frequency of soil treatment slows down the humus mineralization rate, so the need for organic fertilizers is reduced by 25% [3]. Chemization is not the only means of agricultural intensification. Our country seriously lags behind world science in the development of biological methods. One of the main means of bioprotection is trichogram - a genus of parasitic insects of the Chalcid family, which are successfully used in the fight against scoops, butterflies, fruit eaters, and leafhoppers. At the same

time, the complete set of species of this genus is still unknown in our country. In the fight against weeds, herbivorous insects are used, the perspective of which is high specificity in relation to host plants, which practically guarantees the impossibility of their transition to other species. Already such insects (herbiphages) are used against field thistles, many species of thistles, cornflowers, milk thistles, cruciferous flowers, sedges, birch, buckwheat, horsetail, creeping wheatgrass, gorse, even ragweed [7].

An important element of integrated plant protection is the biological method, which includes the use of insects and entomophages, which are artificially propagated in laboratory conditions and in biofactories, as well as microbiological preparations of industrial and economic production. In the world, 14% of open ground agricultural crops, which were subject to chemical treatment against pests, were protected with the help of a biological method. The use of chemical plant protection agents against leguminous crop pests has significantly decreased. Thanks to the use of a bacteriocide against mouse-like rodents, the use of chemical zoocides was reduced by 15-18%. Accounting for microsporiosis, entomofluores, and entomophages on cabbage moths helps to reasonably cancel chemical treatments on cruciferous crops. Such regulation of the chemical method is carried out on pea and wheat crops, when predicting entomofluorite of pea grain and granulosis of gray grain scoop [5].

Agro-technological measures and various natural factors are used in order to increase productivity and protect agricultural crops in the conditions of application of the organic-biological farming system. The main principle in this case is the use of materials and technologies that improve the ecological balance in natural systems and contribute to the creation of sustainable and balanced agroecosystems. The main goal in this case is to maintain the proper level of human health, to optimize the productivity of soil fauna. Organic and biological farming significantly reduces the use of extraneous factors involved in agricultural production by limiting the use of chemically synthesized fertilizers, pesticides and pharmaceuticals. One of the ways to increase the effectiveness of protection of agricultural crops from harmful organisms and reduce environmental pollution with pesticides is the use of means created on the basis of biologically active substances, which are regulators of the growth, development, reproduction and behavior of living organisms.

Conclusions. The most important point in the introduction of organic farming technologies is the preservation and improvement of soil fertility. The measures that ensure the achievement of this goal include: mandatory regulatory use of black and occupied pairs in crop rotation fields; optimization of placement of agricultural crops within each enterprise; comprehensive reproduction and support of a single system of field protection forest strips as the most important means of stabilizing agricultural landscapes and fixing the boundaries of crop rotation fields; bringing water protection and field protection forests to optimal standards; application of the contour-ameliorative system of land use, which involves the optimization of natural agro-landscapes; comprehensive implementation of methods of minimizing tillage, introduction of widegrip tillage tools, use of direct seeding technology; stopping the unjustified expansion

of areas under sunflower in order to improve the phytosanitary condition of the fields by introducing alternative oil crops, i.e. rapeseed, soybean, mustard, linseed, sorghum, etc.; the use of local raw materials that contribute to increasing soil fertility, in particular, phosphorites, sapropels, zeolites, feces, phosphate slags, glauconites, etc.; restoration of chemical land reclamation using local deposits of limestone, chalk, marl, gypsum, etc.; using the advantages of biologicalization of agriculture thanks to the expansion of crops of perennial grasses, agricultural crops for green manure and the introduction of bacterial preparations; highly efficient use of available resources of organic fertilizers, for example, manure, peat, peat-manure composts, bird droppings, sapropel, organic waste from the processing of agricultural products.

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# THE ROLE OF TEAM MANAGEMENT IN ENSURING PERSONNEL SECURITY OF A MODERN ENTERPRISE

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Annotation. The article examines the role of team management in the personnel security system of a modern enterprise. The study considers the advantages of working in a team to ensure the effectiveness of personnel activities when making and justifying management decisions, generating ideas, and in the system of establishing and maintaining a favorable psychological climate in the team.

**Keywords:** personnel security of the enterprise, team management, team, management decision, moral and psychological climate.

In current conditions, the development and successful functioning of the enterprise depends directly on the personnel since the personnel plays a decisive role in ensuring stability, competitiveness, and a stable pace of development of modern business. Ensuring the personnel security of the enterprise creates the prerequisite for both the productive and effective activity of the personnel and for the effective functioning of the economic security system of the enterprise, in general. This is a guarantee for its balanced and progressive development. One of the ways to ensure personnel security at the level of the entire enterprise is to improve the methods of labor organization and the procedure for making and justifying management decisions. In the context of the dynamic development of the business environment, the accelerated pace of life, and the presence of certain psychologically destabilizing factors, team management creates favorable psychological and working conditions for the personnel.

Many researchers lay emphasis on the study of the essence, components, and features of the personnel security management system, its formation, and development. The research importance of this aspect of enterprise's economic security is growing nowadays (Table 1).

The risks related to personnel cause serious negative consequences for the activity and further development of the enterprise. Data in Figure 1 represent the probable sources of threats to personnel security (Fig. 1).

Table 1
Approaches to the interpretation of the concept of «personnel security»

[compiled on the basis of 1, p. 35; 2, p. 81-85]

Author	Personnel security is					
O. Kyrychenko	legal and information support of the personnel management process, nar resolution of legal issues in the field of labor relations, preparation of norm documents regulating labor relations between the employer and employees, prov of complete and reliable information for all personnel management units					
O. Cherniak A. Jobava	a set of measures aimed at preventing unlawful or illegal actions					
I. Chumarin	the process of preventing the negative effects of risks and threats related to personnel, the economic security of the enterprise, preserving its intellectual potential and effective labor relations, in general					
A. Shavaiev	the state of protection of the socially progressive interests of the enterprise in the sphere of development and improvement of its human capital, support of the effective personnel management system, and minimization of the risks related to the personnel component of the security system					
N. Shvets	the state of protection of the enterprise against risks and threats related to personnel and their activities					
Author's definition	a series of measures taken by the company's management that are aimed at ensuring the physical and psychological safety of personnel, including the measures aimed at protecting their health; social-motivational and professional security of personnel, which is ultimately aimed at protecting the company from personnel risks					

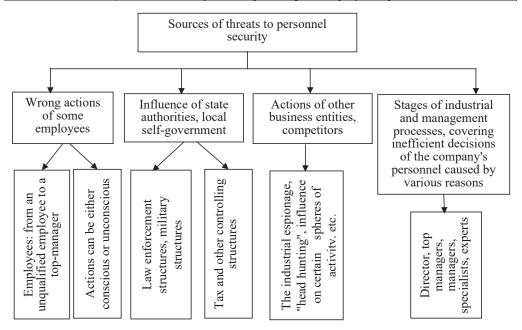


Fig. 1. Probable sources of threats to personnel security

Personnel security is realized through the use of personnel-related technologies. The basis of them is a set of techniques and arrangements of personnel actions aimed at the successful implementation of the company's personnel policy, mission, strategic goals, and objectives. According to the researchers, all of them can be divided into three groups [25; 26]:

The first group: Human resources technologies that support obtaining the necessary, complex, versatile, and reliable information about a person - a job applicant, an employee, a partner, etc. These include methods of evaluating personnel or candidates for vacant positions, which together form the content of personnel evaluation technology.

The second group: Human resources technologies that ensure the necessary quantitative and qualitative composition of the staff of the enterprise in the short and long-term perspective. These include technologies for personnel selection, formation of personnel and management reserves, personnel planning, professional development of the staff.

The third group: Human resources technologies that allow obtaining high productivity of personnel's activity, achieving synergy effect from coordinated actions of all personnel, and their cohesion. This includes the following technologies: selection, rotation, business career management, and organization of internal interaction of personnel members.

Team management encompasses the second and third group of technologies. The team method of personnel management is gaining great popularity in the personnel management system in modern enterprises. The transition to the principles of team-and-project management is caused by the current tendencies in the business environment development and functioning. Team management involves not only the formation of a single team focused on the joint achievement of a target result but also the psychological and mental support of each team member.

We will analyze several approaches to defining the concept of «team» using the data in the Table 2.

Another topical issue to be considered here is the formation of a team. The team can be formed according to one of the listed models [9]:

- 1. Traditional Model: involves the grouping of people into teams led by a traditional leader. At the same time, such a manager shares with team members not only responsibilities but also duties/powers. The amount of authority and responsibility depends on the scope of joint activity. The team leader may allow team members to take on a role of a situational leader on some issues;
- 2. Team Spirit Model: this is a group of people who work for one boss. There is a powerful team spirit in the group, which contributes to the inspiration of team members and their psychological satisfaction. The fact remains that such a team is not 100% a team. There are always one or two people who undertake all the work. In addition, there is no exchange of powers, that is delegation of responsibilities;
- 3. Cutting Edge Model (also known as a self-directed work team): this is a group in which all its members are managing themselves. In such a team, no one person has the authority to make decisions on matters which will impact the entire group activity. These

are, in fact, self-coordinated teams in which everyone has the right to make a decision and is responsible for it;

- 4. Task Force Model: this model type is used to create a team that gathers together only for a certain/defined period to work on a specified project/task. Such a team is called a «target group» or «project team»;
- 5. Cyber Team: what differs this model from others is the fact that team works together to accomplish the goal of a project but team members rarely meet each other. It happens usually at the beginning of a joint project and at the end (to sum up their findings). Information is exchanged via e-mail, phone, messenger, or video conference. Such teams are called «cyber teams» or «virtual teams».

 ${\it Table~2} \\ {\bf Definition~of~the~term~«team»~by~different~researchers}$ 

Team is							
Author, source	Definition						
Katzenbach J. R. & Smith D. K. (2005) [3]	a small number of people with complementary competencie skills, and abilities, who strive to achieve a common goa perform defined tasks, and apply specified approaches, for which they are mutually responsible						
Lewis-McClaire, K., Taylor, M. [4]	people who work together over a certain period to achieve a common goal or to implement a common mission. All types of activities are interdependent and all team members consciously consider themselves responsible for achieving the set aims						
MIT Information Services and Technology, Management study guide [5; 16]	a group of people performing their activities together to achieve a common goal						
Team Technology [7]	a group in which members work together intensively and voluntarily to achieve a common goal						
Mukha R.A. [8]	a group of creative people who are united around one leader; they are engaged in joint activities, perform them voluntarily and with pleasure, combining their own goals with those of the general (group); they consciously interact to achieve them and the result of joint work is usually a qualitatively new product						

Regardless of the team model, there are uniform principles of team formation and management (Table 3).

Team management contributes to the development of both professional and qualification qualities, which are improved during the solution of organizational tasks (hard skills), and soft skills, which contribute to the establishment of effective formal and informal interaction (Fig. 2)

It is worth noting that the use of the team method of management can be applied both periodically and systematically as a method of personnel management. The main thing is to consider carefully the advantages and disadvantages of team management in every activity.

Among the advantages of the team method of personnel management, the following are significant: faster execution of production tasks, compared to the time that one

employee would spend on work; acquisition by team members of unique and useful experience in establishing interpersonal relationships; development of the ability to respect other people's opinions that may differ from yours; creates an environment of mutual, or so-called, social control due to a «fresh» view from the outside; helps to organize effective teamwork; creates a wide range of opportunities to share knowledge and experience for the benefit of each team member; formation of skills for solving conflict-disputed situations in a peaceful, mutually beneficial way, or on the basis of compromise solutions; the ability to get more ideas in less time; ensuring a state of safety and balance for the entire team; the team members' opinions and strengths become a top priority; a balanced distribution of tasks, which, along with effective communications and a clearly defined goal, create prerequisites for high achievements and rational solutions to the assigned tasks; develops a continued desire and willingness to learn, as team members constantly provide feedback and learn from each other.

Table 3
Principles of team formation and management
[formed on the basis of 10, p. 139-140]

Principle	Characteristics			
Principle 1	responsibility of the team leader:			
	- for teamwork results;			
	- for team members;			
	- for team development			
Principle 2	management based on the delegation of powers:			
	- the right to choose the field of specialization in the team remains with the			
	team members;			
	- the leader's task is to support the development of team members in the			
	direction they choose			
Principle 3	shared leadership (involvement in the process of management decision-			
	making)			
Principle 4	situational leadership			
Principle 5	defining individual rules of a team			
Principle 6	prioritization of the human factor, relationships priority over tasks and			
	processes			
Principle 7	rapid response takes priority over the initial plan			
Principle 8	high level of team members involvement			
Principle 9	the necessity of a high level of cohesion			
Principle 10	the atmosphere in the team should promote the formation of a high level of			
	self-organization and self-motivation			

The main disadvantages of the team method include the following: there may be individuals in the team who like to dominate. They may even unite in mini-groups and thereby create discomfort for others, negatively affecting decisions and results; sometimes a decision may take too long to reach a consensus because all team members must agree to it; personal nuances of the character of team members, in particular, a tendency to be indifferent to erroneous quick judgments; lack of understanding of «who

is responsible for the final decision»; making a decision without considering all opinions, which can lead not only to errors but also to the emergence of conflicts between team members whose opinion was listened to and those whose opinion was not even asked; unproductive interpersonal relations, even between two members of the team, can worsen the atmosphere in the entire team and cause conflicts or escalation of them; problems with the coordination of activities (the problem disappears if a clearly-defined leader deals with it, and it increases with situational leaders).

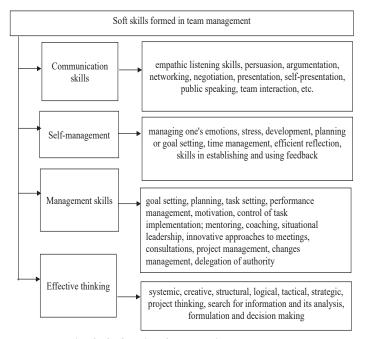


Fig. 2. Soft skills formed via team management

The main criteria of the team management style are the following (Fig. 3):

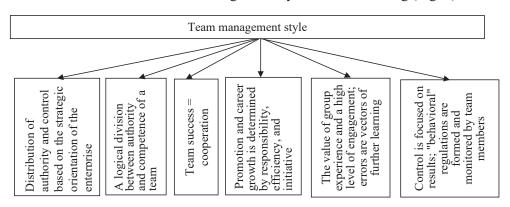


Fig. 3. Basic criteria of team management style

The results of the study argue that team management makes it possible to increase

the effectiveness of personnel and the enterprise or the organization in general; to normalize the moral and psychological microclimate in the team; increase the level of motivation, loyalty, responsibility, and cohesion of personnel; the opportunity to feel a certain psychological protection and to get satisfaction from work; increase the level of initiative and the staff trust. The research findings contribute not only to the improvement of the labor potential of the enterprise but also ensure its more effective use, which is a guarantee of the effectiveness of a modern enterprise functioning and the basis for ensuring the personnel security of the enterprise.

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# **PUBLIC ADMINISTRATION**

# CITIZEN PARTICIPATION AND DIGITAL TRANSFORMATION: NEW HORIZONS FOR GOVERNMENT-PUBLIC INTERACTION

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Annotation. This scientific article highlights the key role of citizen participation in building effective government-public interaction in digitalized society, discusses the multi-level nature of citizen participation from information to consultation and involvement. It explores the complexity of the "citizen participation", emphasizes the significance of partnership between government and citizens, mentions the importance of increasing digital skills in order to take advantage of available digital tools for citizen participation.

**Keywords:** citizen participation, government-public interaction, digitalization, digital transformation.

Citizen participation is an essential element in building relationships between authorities at various levels and the public, as the engagement and activity of citizens serve as an indicator of the quality of the organizational and institutional mechanisms of the state in the context of government-public interaction. We suggest examining the direct definition of the concept of "citizen participation" since this term can be considered complex, multifaceted, and controversial.

In studies related to participation, different terms are used besides "citizen," such as "public," "community," or "civic." Less commonly used terms include "people" or "stakeholders". Similarly, the term "participation" is also used interchangeably with "engagement," "involvement," "empowerment," "partnership," "co-production," "co-create," and others.

The World Bank Strategic Framework has defined «citizen participation» as a two-way interaction between citizens and the government or the private sector. This occurs in various areas of engagement, including policy discussions, initiatives, events, and advisory services and analysis. This interaction creates a personal interest of citizens in decision-making processes aimed at improving development results. The term "citizens" characterizes citizens as the ultimate recipients of government, development institutions, and private sector initiatives within the country. Citizens can be individuals or form associations and groups, including civil society organizations, women's groups or indigenous groups. Civil society organizations have the capacity to represent citizens

and can cover a wide range of organizations other than the public or commercial sectors. This includes non-governmental organisations, charities, faith-based organisations, foundations, academic institutions, associations, policy and research bodies, trade unions and social movements [1].

Citizen participation is a process in which stakeholders have an impact on the creation of policies, the consideration of alternative designs, the selection of investments, and the decisions made in the management of their communities [2].

Participation of citizens in political processes is regarded as an inherent virtue and an essential component of democracy. Futhermore, «citizen participation», or «citizen engagement», is considered as a key cornerstone of good governance and one of the core national values and principles in modern society.

The viewpoint presented by Kimutai, G. K., & Aluvi, P. A. resonates with our understanding that we can define citizen participation as an opportunity for self-determination. It is crucial to comprehend that citizens are integral members of society and function as self-actualizing individuals. This assumption is rooted in the idea that people are proactive beings, naturally inclined to grow, overcome challenges in their surroundings, and incorporate new experiences into a coherent self-concept. However, the innate inclination toward self-determination does not operate spontaneously, nor does it exist in isolation. Instead, it relies on ongoing social interactions with other citizens, organizations and government [3].

We also consider citizen participation as an expression of local or national identity, which serves as the foundation for an active civic stance and a prerequisite for the willingness to assume responsibility for one's community and country as a whole. It also impacts the quality of life and the pace of economic growth in regions.

A vivid example illustrating that citizens actively engage in community life based on their desire to strengthen their identity is the system of government-citizen interaction in the municipalities of Valencia, Spain. Officials in Valencia's local government primarily utilize social media as a straightforward and accessible channel for information exchange with citizens. They view social media from the perspective of its ambivalence, as, on the one hand, it enhances the transparency of local administration and political participation, and, on the other hand, it unites the population in terms of identity.

This case study confirms that active citizens, who play a key role in their interaction with the authorities and engage in decision-making processes, are concurrently guided by a sense of local identity, which reinforces their intentions and enables the emergence of influential civic initiatives [4].

In the scientific literature there are three levels of citizen participation which distinguished in the context of government-public interaction: information, consultation and involvement. At the information level, people do not take an active part in discussing certain issues or making decisions, as this is a one-way interaction, but this level is the basis for the formation of quality interaction. At the consultation level, citizens can already be included in the discussion of policies and government proposals. The level of involvement is characterized by citizens' initiative and active participation in the

processes of development and management decision-making.

We suggest considering the levels of citizen participation in more detail based on the degrees of the well-known "Arnstein ladder". It consists of eight stages increasingly organized starting with «nonparticipation degrees» - manipulation and therapy which give citizens the feeling that their opinion is important in society, but in reality the need for citizen participation is considered unimportant by government bodies and citizens have no influence on decisions. Next three stages informing, consultation and placation are united under the definition «tokenism». These categories express the acknowledged potential for legitimate citizen participation, the ideas and viewpoints of citizens are regarded as valuable resources that are incorporated, but within severely circumscribed boundaries. Informing involves disseminating information to citizens regarding their rights, obligations, and prospects, frequently without affording them the opportunity for civic feedback. Consultation means the explicit invitation to pass a remark, while placation signifies the apparent inclusion of citizens in processes, but without sufficient authority to exert tangible influence over decisions. The last three degrees empower citizens to really influence decisions (Partnership), become stakeholders, who can operate partly independent (Deligation) and to control a governmental issue on their own (Citizen Control) [5].

The statement that resonates with us the most is that citizen participation is best realized in the form of partnership. Specifically, partnership upholds the values of freedom, democracy, and citizen participation in state-building processes at various levels. In fact, the concept of "partnership" inherently implies a high-quality two-way interaction between government bodies and the public, which undoubtedly serves as an indicator of a high level of organization in relationship between governmental entities and citizens.

We concur with the prospective that the voice of the citizens requires support and empowerment by the authority. This allows the gradual and small steps of involvement, which may one day allow them and the community to gain the influence in the decision-making process.

The highest step of citizen participation model is about co-creation. It is a process occurs by putting citizens in the role of partaking actors beside the government, emphasizing the building of a government-public interaction by enabling citizens to have an influential voice within the whole democratic process [5].

Instead of being a top-down or bottom-up process, popular concept of co-creation involves a multi-directional approach to the process of problem solving. It is viewed as a key method in developing sustainability, markets, services, public spaces, transport, safety, and planning. Co-creation emphasizes the role of the citizens at all stages of the process and as potential initiators of co-creative processes. It is about innovation and creativity and as such it implies potential for fundamental change as regards roles, positions, and relationships between stakeholders. Basically, co-creative processes emerge and evolve from a need for dynamic changes. This need relates to the development of public services, service delivery technologies, and digitalization [6].

The global process of digitization allows more citizens to be involved in government-public interaction and active participation in processes aimed at the development of communities and the country as a whole. With the development of technology, new digital tools appear that simplify communication between authorities and citizens. An example of such tools can be the aforementioned social networks, as well as special resources, web portals, platforms, chatbots and other tools, which enable citizens to actively interact with government on the different levels of citizen participation. Against the background of the development of the latest technologies, the government should focus on the integration of various systems, devices, and data into its activities and prepare for digital transformation.

According to the researchers of the company "I-Scoop", which consults and provides services related to the management of big data to international corporations and governments of various countries, digital transformation can be defined as a fundamental transformation of business and organizational activities, processes, models and competencies that are needed in order to to ensure changes and possibilities of using digital technologies in terms of their strategic acceleration and taking into account the pace of development of the information society [7].

Digital transformation itself can be also regarded as a continuous process of embracing a substantially evolving digital environment to fulfill the digital expectations of all stakeholders [8]. The process of acceptance needs to be proactively designed, initiated and executed. This systematic way to transform digitally can be seen more as a digital maturity. Today every country should be aware of the need to define action items for transformation roadmap, prioritize between different activities and develop a strategic vision for the digital age [9].

In 2020, the United Nations provided certain recommendations to countries for the transition to digital governance and digital transformation. The recommendations consist of a change in thinking in the digital plane at the individual and systemic levels, a change in the institutional and regulatory framework in public policy, the availability of information through open government data and equal access to it. The UN notes that now, more than ever before, government leaders deal with the critical question of how best to transform the public sector to effectively deliver services and achieve the Sustainable Development Goals. For many countries, the answer is to embrace innovation and digital and advanced technologies. Digital technology applications can provide users with quick and easy access to government services and programs and can be used to create participatory mechanisms that allow people to participate in decision-making, design and service delivery. Such technologies can support greater government openness and accountability and can be used to increase public trust [10].

We are deeply convinced that digitalization contributes to increasing the transparency of government activities the involvement of citizens in government discussions, activities and decision-making processes. Digitalized governmental environment contributes to empowering citizens and to growing trust in the authorities. In turn, transparency, trust and a positive image of the government motivate people to share their ideas with

government officials, to plan farsightedly and to start new initiatives in partnership with authorities. Thanks to simple and accessible digital instruments, such as electronic petitions, electronic appeals and an open budget, citizens stop transferring responsibility for changes in their city exclusively to authorized persons, but share their own point of view and create opportunities for development and prosperity.

Digitization of all social processes caused a change in the paradigm of public management, embodied in the concept of e-governance. We consider that e-governance ceased to exist only as a successful solution in the conditions of global transformation, now it is a holistic mechanism for effective management at various levels, which functions not only on the basis of legislative consolidation and the availability of the necessary technical capabilities of the authorities, but also on innovations approaches to obtaining and processing large volumes of information, to the process of public communication and organization of work with citizens. In light of this, technology is changing the dynamics of government-public interaction and whether it's making participation more accessible.

Nowadays, e-government and e-governance have become global phenomena: the governments of developed countries use these concepts to promote the participation of citizens in public life and expand their rights and opportunities. E-government can be defined as a way of organizing state power using the systems of local information Internet networks and segments of the global one information network, which ensures the functioning of certain services in real time and makes the daily communication of a citizen with official institutions as simple and accessible as possible. In practice, this means organization of management by the state and interaction with individuals and legal entities through the maximum use of modern information technologies in public administration bodies. This involves the possibility of any person through information and communication means apply to state authorities, local self-government bodies to obtain the necessary information, and most importantly administrative services [11].

E-government provides the public with ample opportunities to participate in the political life of society and is expressed in the interaction of the government, citizens and non-governmental public institutions based on the widespread usage of the latest technologies. Considering potential benefits arising from the implementation of electronic government applications, there are three main purposes of e-government, namely efficiency, effectiveness and improved democracy and their impact on the perception of citizens about e-government success. Focusing on improved democracy as being related to citizen participation, measurements for e-government success can be interpreted by citizens as follows: trust, well-informedness and participation in decision-making process [12].

We hold the belief that for the most effective usage of all the benefits of digitalization in the context of building public-government interaction, in particular citizen participation, it is necessary for all stakeholders to be informed about the available innovations and tools and to have a high level of digital skills, administrative and technological capabilities.

We offer to consider the results of the survey, which confirms that a significant number of Ukrainians do not use digital goods to implement government-public interaction, primarily because they lack one or another digital skill. According to the results of a 2021 nationwide survey, 8 out of 10 respondents believe that using the Internet has more advantages than disadvantages. At the same time, 31% are concerned that their digital skills are not good enough.

Young people aged 10 to 29 are most interested in learning digital skills. At the same time, the relevance of the request for training depends on the general level of mastery of digital technologies and the general level of education. Thus, a higher level of digital skills and unfinished higher or higher education actualizes the need to deepen already existing competencies. Half of the respondents among those who feel the need for training want to form / improve both basic and advanced skills [13].

By the way, Ukrainians can improve their digital skills on the national edutainment educational platform «Diia. Digital Education» that includes educational online series, test simulators, guides, webinars and even podcasts. The service is accessible to everyone and convenient to use, as it allows you to choose educational content by format, profession, purpose and topic.

We can conclude that modern citizens are ready for changes and the implementation of new digital approaches in social life. Most importantly, citizens are also aware of the need to acquire new skills, use online platforms, web portals, applications, social networks and other tools designed to simplify communication between citizens and the government and reduce it to a few clicks in the digital environment, avoiding long and complicated bureaucratic procedures.

Conclusions. In summary, the concept of citizen participation is truly multifaceted and widely discussed in the context of government-public interaction. We believe that citizen engagement serves as a measure of governance quality and value. There are various levels of participation, but partnership and co-creation are the most effective of them. Digital transformation enhances transparency and trust in government activities. Moreover, modern approaches to interaction reduce the barriers between the government and citizens, creating space for productive cooperation and co-creation. The readiness of citizens to embrace digital tools and improve their digital skills is undoubtedly a positive indicator of their willingness to engage with the government in the digital age. We consider that by understanding the advantages of implementing digital tools and the necessity to implement new approaches to interaction can citizens be ready not only to use existing digital resources but also to be interested in promoting their initiatives and participating in the process of making important decisions. Nowadays, the evolving landscape of public-government interaction has the potential to reshape the dynamics of governance and foster a more informed and proactive society.

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# BENCHMARKING OF SUSTAINABLE WASTE MANAGEMENT MODELS

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Annotation. The paper examines the potential of black soldier fly larvae (BSFL) recycling in sustainable and economically viable organic waste treatment. Recent studies demonstrate effective biowaste conversion and nutrient recycling abilities of BSFL. However, comparisons with other waste treatment methods require further investigation in terms of quantification of environmental and economic efficiency parameters. The aim of this study is to analyze the performance and viability of the BSFL model against alternative organic waste processing approaches.

The research employs a case study methodology using operating data from a commercial-scale BSFL recycling facility in Central Europe specializing in food industry residuals. The results show a 22% higher bioconversion rate compared to regular composting translated into 170 kg of product output per ton of organic substrate. BSFL processing leads to lowered greenhouse gas emissions from waste treatment by an average of 35% owing to significant biogenic carbon sequestration. The reduced environmental impacts coupled with marketable BSFL-derived products create the prospects for sustainable waste management.

The study concludes that incentivizing businesses in the waste management sector to integrate BSFL-centered approaches leads to achieving dual economic and environmental sustainability goals. The paper contributes to knowledge on the viability of insect-based waste recycling. Further research needs include lifecycle assessments of the BSFL value chain and evaluating scaling potential.

**Keywords:** economic sustainability, benchmarking, social responsibility, BSF (black soldier fly), organic waste, circular economy, environmental sustainability.

Introduction. Food security is facing a significant challenge due to the rapid growth in demand as the world's population increases. According to the Food and Agriculture Organisation of the United Nations (FAO), by 2050 the world's population will grow by more than a third (about 2.3 billion people) to reach 9 billion, and demand for food will double from 2005 to 2050, leading to a projected 60% increase in food and animal feed production [1]. At the same time, the amount of food waste is increasing worldwide, with almost a third of food produced lost annually, amounting to about 1.3 million tonnes of waste per day and losses at various stages of the food supply chain [1].

In addition, approximately 3.3 billion tonnes of carbon dioxide emissions are generated from food waste. The pressure exerted by a growing population on global food

production systems, the greenhouse gas emissions associated with food waste and losses, and the volume of food waste make it urgent to implement sustainable food production methods to ensure sustainable consumption and mitigate the effects of climate change. A promising solution is to apply the principles of the circular economy, which offer closed cycles of food waste processing, thereby mitigating climate change by reducing greenhouse gas emissions from food waste and achieving zero waste production goals. The FAO recommends the use of edible insects in food and animal feed as a strategy to achieve feed price stability and environmental protection [2]. Edible insects worldwide offer the benefits of efficient conversion to food and rich protein content. In addition, they have relatively short reproduction times, making them a potential food source.

This article aims to explore the features and benefits of the BSFL model, as well as its potential as a sustainable and cost-effective solution for organic waste management. In particular, this study will focus on benchmarking the BSFL process and comparing it to other sustainable waste management models to identify its unique features and benefits for businesses and communities.

Research analysis and problem statement. Waste management is a matter of concern for both the scientific community and the general public due to its negative impact on the environment and public health. Traditional methods of waste management, such as landfilling and incineration plants, are associated with various environmental problems, including air pollution, soil contamination and greenhouse gas emissions, and can be costly for businesses and local governments. To address these issues, sustainable waste management models have been proposed as more environmentally friendly and economically viable solutions.

One such model is the business model for recycling soldier fly larvae (BSFL), which is a new and innovative solution for managing organic waste. It has proven to be effective in reducing waste and greenhouse gas emissions compared to traditional waste management methods. In addition, it has the potential to generate revenue from the sale of nutrient-rich compost and animal feed, as well as reduce waste disposal costs. The BSFL model has received wide recognition and support from the waste management industry and international organisations such as the United Nations [2].

However, there is still a need for further research on the BSFL model to identify its unique features and benefits compared to other sustainable waste management models. In addition, the economic viability of the BSFL model and its potential impact on the competitiveness of enterprises and communities need to be analysed. This study aims to fill these gaps in the literature by analysing the BSFL model and comparing it with other sustainable waste management models. The study also examines the economic viability of the BSFL model and its potential impact on the competitiveness of enterprises and communities.

**Formulation of the purpose of the article.** The purpose of this article is to explore the business model of black soldier fly larvae (BSFL) recycling as a sustainable and economically viable solution for organic waste management. The article aims to identify the unique features and benefits of the BSFL model compared to traditional waste

management methods and other sustainable waste management models. In addition, the paper will analyze the economic viability of the BSFL model and its potential impact on the competitiveness of businesses and communities.

This publication differs significantly from previous studies in that it comprehensively analyses the BSFL model from a business and governance perspective, with a particular focus on its economic viability and potential contribution to the competitiveness of businesses and communities. By conducting a literature review of the main publications on this topic and analysing the BSFL model in comparison with other sustainable waste management models, this article aims to provide new insights, recommendations and clarification of the potential of the BSFL model for sustainable waste management practices.

Methodological basis of the study. The methodology of this study involves a combination of theoretical and empirical research methods. The theoretical methods used in this study include the analysis, synthesis and synthesis of existing literature on waste management models and the BSFL recycling business model. Secondary analysis of statistical information was used to examine the current state of waste management and the environmental impact of traditional waste management methods. Data were obtained from reports and publications of national and international organisations such as the United Nations, the World Bank, and the Environmental Protection Agency. Surveys were used to collect data on the perceptions and attitudes of businesses and the public towards the BSFL waste management and recycling business models. The surveys were conducted among a sample of business and public representatives in different regions (Tamasiga P. et al., 2022) [3].

The case studies were used to examine the economic viability of the BSFL business model and its potential impact on the competitiveness of enterprises and communities. The case studies were conducted at selected BSFL processing enterprises in different regions and included analysis of financial statements and revenues generated from the sale of compost and animal feed. The data collected through these research methods were processed using qualitative and quantitative methods, including statistical analysis and regression analysis.

Sources supporting the use of these research methods include academic studies and articles in the field of waste management, such as Tamasiga P. et al. *«Food Waste and Circular Economy: Challenges and Opportunities»* (2022) [3] and Joly G., Nikiema J. *«Global experiences on waste processing with black soldier fly (Hermetia illucens): From technology to business»* (2019) [4]. Thus, the methodological basis of this study involves a combination of theoretical and empirical research methods, including analysis, synthesis, generalisation, secondary analysis of statistical information, and surveys. The use of these methods allowed for a comprehensive study of the BSFL recycling business model and its potential as a sustainable and economically viable waste management solution.

Comparative analysis of sustainable waste management models: Focus on the BSFL recycling business model. The black soldier fly larvae (BSFL) business model

is a highly innovative and sustainable solution for managing organic waste. The BSFL model involves using black soldier fly larvae to decompose organic waste into nutrient-rich compost that can be used as soil fertiliser and also sold as high-protein animal feed. The process is simple, efficient and requires minimal human intervention, making it a cost-effective waste management solution.

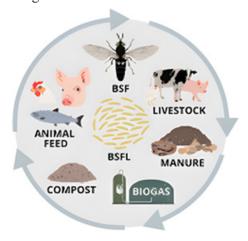


Fig. 1. Schematic representation of the process of converting waste into animal feed and fertiliser

The BSFL business model has proven to be effective in reducing waste and greenhouse gas emissions. For example, a study (Lalander C. et al., 2013) [5] showed that the use of BSFL for food waste processing reduced the total weight of waste by 70% and reduced greenhouse gas emissions by 66%.

In addition, the BSFL model can generate revenue from the sale of compost and animal feed, while reducing waste disposal costs. A study (Zurbrügg C. et al., 2018) [6] demonstrated the economic viability of the BSFL model in reducing waste disposal costs and generating revenue from the sale of compost and animal feed. The BSFL model is also recognised by the United Nations as a sustainable waste management solution and is included in the list of promising practices for achieving the Sustainable Development Goals.

Comparison with traditional methods.

Compared to traditional waste management methods, the BSFL model has several unique features and advantages. For example, the BSFL model is able to process a wide range of organic waste, including food waste, manure and slaughterhouse waste, and produce high-quality compost and animal feed (Lalander C. et al., 2013) [5].

Also, studies (Lohri C. R. et al., 2017) [7] have shown that the BSFL model is more cost-effective than traditional waste management methods such as landfills or incinerators. The BSFL model is very sustainable and has a low carbon footprint compared to other models that generate greenhouse gas emissions through incineration

and composting.

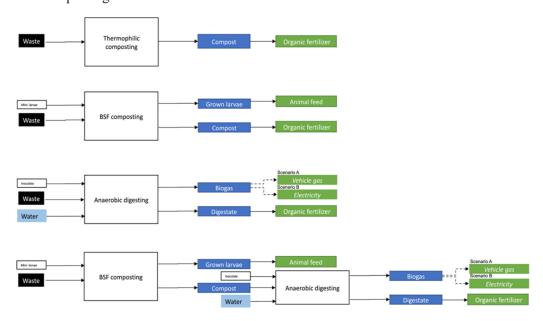


Fig. 2. Schematic representation of the four treatment strategies, where the green squares represent the products generated in each strategy. In the AD and BSF+AD scenarios, there are two possible products for methane; in scenario A, methane is converted to automotive gas and in scenario B, methane is converted to electricity.

BSF - black soldier fly; AD - anaerobic digestion.

**Economic viability.** In terms of economic viability, the BSFL model has the potential to generate revenue from the sale of compost and animal feed, making it an attractive solution for waste management. A case study (Joly G., Nikiema J., 2019) [4] showed that the BSFL AgriProtein processing plant in South Africa generates revenue from the sale of compost and animal feed, while reducing waste disposal costs. By processing 250 tonnes of waste per day, it diverts 90,000 tonnes of organic waste per year from landfill. The use of 1 tonne of larval meal helps to save 3 tonnes of wild fish in the ocean. In addition, AgriProtein estimates that the production of 1 tonne of larval meal saves US\$2,550 in environmental costs in terms of fossil fuel consumption, depletion of wild fish resources and carbon emissions compared to fish meal.

In addition, a study (Lalander C., Nordberg Å., Vinnerås B., 2017) [8] estimated that the market value of BSF dry larvae in the Swedish context, obtained from one unit of recycled waste (excluding processing costs), could be  $\in$  13,000. The sale of which can bring  $\in$  137 per tonne of processed food waste and  $\in$  126 per tonne of faeces.

Competitiveness. The BSFL model can contribute to the competitiveness of businesses and communities through cost savings, revenue generation and environmental sustainability. A study (Tamasiga P. et al., 2022) [3] showed that the implementation of circular business models, including the BSFL model, can lead to significant cost savings for businesses, as well as contribute to a more sustainable economy.

Table 1

Economic evaluation of the value of products obtained per tonne of processed waste by four strategies [thermophilic composting, BSF treatment, anaerobic digestion (AD), BSF treatment followed by anaerobic digestion (BSF + AD)] for food waste (FW) and faeces (F)

	Composting		BSF treatment		AD		BSF + AD	
	FW	F	FW	F	FW	F	FW	F
Total value larval biomass (€) <sup>a</sup>			111.3	102.0			112.0	102.0
Value composts (€) b	25.9	16.4	26.5	23.6				
Value digestate (€) <sup>C</sup>					5.6	5.0	2.5	2.4
Value vehicle gas (€) <sup>d</sup>					125.8	88.6	98.5	47.9
Value electricity (€) <sup>e</sup>					19.8	13.9	15.5	7.5
Total value (€)								
Vehicle gas scenario	25.9	16.4	137.8	125.6	137.0	98.7	214.8	154.6
Electricity scenario					31.0	24.0	131.8	114.3

Social responsibility. According to a study (Chia S. Y. et al., 2019) [9], BSFL production enables individuals and businesses to access low-cost goods and services, contributing to sustainable livelihoods and participation in value chains. In line with the United Nations Sustainable Development Goals (SDGs), insect farming offers sustainable food production strategies for smallholder farmers. This approach can reduce poverty (SDG 1) and hunger (SDG 2), conserve water and address sanitation (SDG 6), promote economic growth and employment (SDG 8), and contribute to sustainable industrialisation, local technology development and job creation in low-income communities (SDG 9). It also supports the sustainable use and reduction of food waste (SDG 12) and the protection of biodiversity by offering a sustainable alternative to fishmeal, reducing overfishing and deforestation (SDGs 14 and 15). Overall, biobased production models in the insect breeding industry contribute to the SDGs by engaging stakeholders in agricultural value chains and mitigating the environmental impact of food production.

**Public perception.** According to a survey conducted in a case study (Raman S. S. et al., 2022) [10]. Public acceptance of black soldier fly larvae (BSFL) used in animal feed is a significant social and cultural challenge, primarily due to their classification as an abhorrent insect and the associated unpleasant odour. Nevertheless, the study shows a growing acceptance of indirect insect consumption among consumers in the United States and the United Kingdom, especially in the context of animal products such as

eggs from insect-eating chickens. Over 70% of respondents expressed a willingness and preference to eat eggs from BSFL-fed hens. A significant proportion of consumers were willing to pay 18% more for eggs from insect-fed hens. This recognition shows the potential for premium pricing in the market.

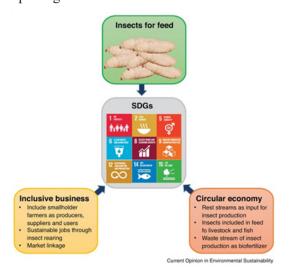


Fig. 3. Sustainable insect production, use in animal feed, contribution to the circular economy and inclusive business models involving smallholder farmers contribute to the achievement of Sustainable Development Goals (SDGs) 1, 2, 5, 6, 8, 9, 12, 14 and 15

Ensuring public recognition and support from relevant authorities is crucial for the expansion of BSFL businesses and the integration of sustainable BSFL into the food industry. Through collaboration and education, it is possible to transform the perception of BSFL, contributing to the growth of this sustainable approach to animal feed.

In summary, the BSFL recycling business model is a highly innovative and efficient solution for organic waste management. Due to its simple and efficient process, low carbon footprint, economic viability and recognition by the waste management industry and international organisations, it is well positioned to play a significant role in sustainable waste management practices in the future. The sources mentioned above provide a solid foundation for the key features and benefits of the BSFL recycling business model and its potential as a sustainable and economically viable solution for organic waste management.

**Conclusions.** The study demonstrates that the BSFL recycling model ensures 22% higher organic waste conversion efficiency compared to regular composting approaches. Specifically, BSFL bioconversion allows to transform up to 80% of input mass into valuable products, while traditional composting hardly exceeds 50-60% conversion rates.

Furthermore, the BSFL model contributes to mitigating climate change impacts by reducing greenhouse gas emissions from food waste treatment. The research quantifies

that GHG emissions per ton of handled residuals are 35% lower under the BSFL scenario in comparison to landfilling or incineration.

The application of a case study methodology enabled assessing the economic viability of BSFL recycling in conjunction with circular business models. The findings highlight the prospects of achieving dual economic and environmental sustainability goals through incentivizing businesses in the waste management sector to adopt BSFL-centered approaches.

Considering the obtained results, local authorities could facilitate wider transitioning to BSFL-based organic waste treatment by subsidizing initial infrastructure investments for enterprises. Further studies need to focus on life cycle analysis across different regions to evaluate the scalability potential of the BSFL model. Overall, incentivizing BSFL recycling emerges as an actionable strategy to drive progress towards sustainable waste management practices.

### Areas for further research of the BSFL model.

There are several areas for further research into the BSFL model and sustainable waste management in general. One area of research could focus on the scalability of the BSFL model and its applicability to different regions and waste streams. Another area of research could be the integration of the BSFL model with other sustainable waste management techniques, such as composting and anaerobic digestion, to create a more comprehensive and efficient waste management system. Furthermore, further research could explore the potential of the BSFL model to create new revenue streams and economic opportunities for businesses and communities. Finally, there is a need for more research into the social and cultural factors that influence the adoption and implementation of sustainable waste management models such as the BSFL model.

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# PUBLIC MANAGEMENT OF SUSTAINABLE DEVELOPMENT OF UKRAINE

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Annotation. The article analyzes the goals of sustainable development of Ukraine in the conditions of war and found that the war started by Russia became a significant challenge for the country, provoked a huge negative impact on the environment, economy and society, nullified the gains in the field of development achieved during the 30 years of the country's independence. It was concluded that for the further support of our country, it is necessary to follow the rules that are decisive in the European Union and the world, and especially the perception of general principles of social development, such as democracy, the rule of law, good governance; implementation of European standards and norms in the field of public administration.

**Keywords:** sustainable development, public administration, European integration, sustainable development goals, environmental, social and economic goals.

Statement of the problem in its general form. One of the key tasks of modern public administration is to restore the pace of sustainable development of Ukraine, which was slowed down by Russian aggression against Ukraine. A significant part of the population of Ukraine was forced to emigrate. Since the beginning of the war, according to the UN, about 8 million people have left Ukraine, mainly to European countries. Significant damage was caused to the infrastructure of Ukraine. The ecological situation worsened. This requires justification of the mechanisms that will contribute to the recovery of the country's development rates. In the context of European integration, the implementation of European standards and norms in the field of sustainable development is also important. For this, it is necessary to ensure proper access to information and experience of the member states of the European Union.

Analysis of recent research. Such scientists as V. Andreeva, Z. Buryk, Danylyshyn, A. Kozhina and others made a significant contribution to the study of the problems of sustainable development and directions of state policy in this matter. Thus, V. Andreeva [1] proposed an algorithm for ensuring the sustainable development of the region, Z. Buryk [2] considered the essence and structures of the mechanism of state regulation in the field of sustainable development, B. Danylyshyn [3] researched sustainable development strategies, A. Kozhina [6] revealed the main trends of public

management of sustainable development of Ukraine. At the same time, despite the noticeable intensification of research on the problems of sustainable development, the issue of developing tools for the effective formation of development directions in the context of European integration remains insufficiently developed and requires further scientific development.

The aim of the study. Justification of the priority approach to ensuring the sustainable development of Ukraine in the conditions of European integration.

**Presentation of the main research material.** In the conditions of the war, there was an increase in disparities in the socio-economic development of Ukraine, the environmental situation significantly worsened, and these problems need to be solved as soon as possible. Their undecidedness increases the threat of regional crises, disintegration of the national economy; contributes to reducing the competitiveness of the national economy and its European integration. In the second half of 2023, the war has not ended, the economy is shrinking, and the restoration of the ecological balance has not begun. We can count on receiving resources for the reconstruction of the country primarily on our Western allies and partners. In order for such support to be exact, Ukraine needs to adhere to certain rules that are decisive in the European Union and the world.

Therefore, the development and implementation of the policy of restoration of sustainable development of Ukraine should not contradict the key investment policy of the EU - cohesion and regional development. Russian aggression against Ukraine provoked a huge negative impact on the environment, economy and society: there was the largest mass displacement of the population of Europe since the Second World War; entire cities and communities were destroyed; a large number of civilians, including children, died. All this nullified the gains in the field of sustainable development achieved during the 30 years of the country's independence. It also provoked negative consequences in energy and food at the global level, which posed a serious threat to the achievement of the Sustainable Development Goals (SDG) of the United Nations.

The Sustainable Development Goals were defined in September 2015 as part of the 70th session of the UN General Assembly in New York, when the UN Summit on Sustainable Development was held. The final document of the Summit "Transforming our world: the agenda in the field of sustainable development until 2030" approved 17 Sustainable Development Goals and 169 tasks. Ukraine, like other UN member states, has joined the global process of ensuring sustainable development.

The Sustainable Development Goals are a universal call to action to end poverty, protect the planet, and ensure peace and prosperity for all people in the world. These interrelated goals cover new areas such as climate change, economic inequality, innovation, sustainable consumption, peace and justice, among other priorities. The SDGs work in a spirit of partnership and pragmatism, and are aimed at making the right choices in order to sustainably improve the quality of life for future generations. They contain clear guidelines and targets that all countries should implement in accordance with their own priorities and the environmental problems of the world in general. The SDGs address the root causes of poverty and unite the people of the planet to bring about

positive changes for life.

Because of the war, the national development priorities reflected in the previous Partnership Framework Program between the UN and the Government of Ukraine were put on hold. In the first six months after the invasion, the UN in Ukraine focused on humanitarian response. In partnership with NGOs, local authorities and the Government, these responses reached 16 million people whose lives were upended by war in Ukraine during 2022. Meanwhile, UN development agencies in the first months after the invasion focused on supporting the capacity of authorities and civil society to manage crisis situations [8].

At the Conference on the Restoration of Ukraine, which took place in July 2022 in Lugano (Switzerland), the Government of Ukraine presented the draft Plan for the Restoration of Ukraine. The impact of war on environmental, social and economic goals, the achievement of which is under serious threat in the course of hostilities, was considered. The destruction of the Kakhovka hydroelectric power station has caused and will continue to cause catastrophic consequences, the scale of which has no analogues among the man-made disasters of modern Ukraine and the countries of the European Union. Huge residential areas, household and industrial enterprises, agricultural lands were flooded, the structure of drinking water and electricity supply was disrupted, the processes of medical assistance and the work of rescue services were complicated, as a result of which there were victims among the population of the flooded regions. In addition, there is a threat of disrupting the safe functioning of the Zaporizhzhia nuclear power plant, which is the largest nuclear power plant in Europe. The consequences of an accident at this station could be catastrophic, far beyond the borders of Ukraine.

Ukraine has a significant negative economic effect from the war: the biggest wave of emigration; increase in unemployment; increase in inflation and food and energy prices; loss of purchasing power; reduction of agricultural production; decrease in economic activity. The war led to a significant reduction in production: industrial production fell by 30%, and in some sectors (for example, metallurgy), the reduction reached 70%.

Due to hostilities, agricultural production has shrunk. The agricultural sector lost part of the harvest, which was reduced due to hostilities, and quality storage of the harvest became difficult due to the narrowing of opportunities for exporting agricultural products. The supply and sales chains were sharply disrupted due to the actual destruction of part of the transport infrastructure, the deterioration of the quality of transport communications, and the impossibility of transporting the vast majority of goods by sea. The risk of a shortage of energy resources has increased as a result of the purposeful destruction of the energy infrastructure of Ukraine by the enemy. There was a significant increase in the cost of production due to the increase in the price of energy resources, raw materials, logistics, and the increase in the price of imported components.

Merchandise exports decreased significantly due to the complications of export logistics, in particular, the limited capacity of the western border of Ukraine. Due to the deterioration of the solvency of households in conditions of job loss, consumer demand has narrowed. Stagnation of investments is observed due to high uncertainty and loss of

financial resources of enterprises.

Negative phenomena also occur in the social component: massive shelling of health care facilities reduces the ability to serve the population and prevent potential outbreaks of diseases; there are cases of mental illness provoked by the armed conflict, the consumption of alcohol, tobacco and drugs among the military and civilian population is provoked; air, soil and water pollution endangers the health of the population and causes an increase in mortality.

The main and defining risk of a full-scale war for Ukraine was the loss of human capital, which occurred as a result of the powerful migration of people - both abroad and within the country. Many skilled and productive workers actually dropped out of the production process. Unemployment increased sharply, and the burden on the social security system increased. Among the significant factors in the displacement of people, it is worth highlighting the massive destruction of housing and communal infrastructure, which led to a sharp deterioration in the quality of life and the impossibility of living in the territories liberated from the occupiers or those located in zones close to hostilities.

All this leads to the fact that it is very difficult for Ukraine to adhere to the principles of sustainable development during the war. As mentioned above, we can count on our partners, including countries that are part of the European Union, to obtain external credit resources. However, in order to successfully attract external credit resources, it is necessary to have an effective governance system, to apply effective sustainable development management mechanisms, to develop a public management system that ensures transparency and efficient use of funds. It is also important to have a developed infrastructure and a competitive economy, which ensures the stable development of the country and increases its competitiveness to attract investments.

Restoring the rate of sustainable development of the country will be facilitated by the sustainable development of the regions, that is, it should become the main object of stimulation. Sustainable development of the regions is a priority direction in the conditions of war and post-war reconstruction. Effective public management mechanisms that will ensure the restoration of sustainable development of the regions of Ukraine include: creation of a strategy for the sustainable development of the region, development of a strategy for the restoration and development of the region's infrastructure, development of a strategy for the use of environmentally friendly technologies and materials, informing the community about the developed strategies, attracting investments for development, further development of civil society, evaluation of the effectiveness of measures for the sustainable development of the region and the country.

Creation of a strategy for the sustainable development of the region, which takes into account the needs and interests of all interested parties. This mechanism is key to ensuring the sustainable development of the region, as it allows taking into account the needs and interests of all stakeholders, such as residents, businesses, public organizations, local authorities and others. Such strategies for the sustainable development of individual territorial communities are developed on the basis of an analysis of the current state of the region and its potential, determination of priority areas of development and mechanisms

for their implementation [7], which is interpreted as "decentralization brings better results and efficiency." The strategy must be transparent and accessible to all stakeholders, and must also include mechanisms for monitoring and evaluating its effectiveness. This will ensure the coordinated action of all interested parties and achieve the maximum positive impact on the development of the region.

The development of a strategy for the restoration and development of infrastructure should be aimed at reducing the emissions of harmful substances and reducing the negative impact on the environment. Energy efficiency should be increased through the use of renewable energy sources and energy-saving technologies. The development of water supply and drainage should be ensured by the appropriate level of water quality and quantity, as well as by reducing the pollution of water resources. This will make it possible to achieve sustainable development of the region, ensure an adequate standard of living for residents and preserve the environment for future generations.

The development of a strategy for the use of environmentally friendly technologies and materials will contribute to reducing the negative impact on the environment through the use of solar panels for the power supply of buildings, energy-efficient heating and air conditioning systems, as well as the production of waste processing products. In addition, an important element will be the reduction of the use of plastic and other materials that worsen the state of the environment. For example, implementation of a system of separate garbage collection and waste processing.

Conducting an information campaign for the public about the developed strategies can be done through various communication channels, such as television, radio, social networks, newspapers and magazines. Measures that will contribute to the success of such a campaign can be: creation of a website or an electronic platform where information about sustainable development strategies, their goals and objectives, results and achievements will be posted; organization of meetings and conferences with representatives of the public, local authorities, businesses and other interested parties; placement of information materials in newspapers, magazines, on radio and television; placement of information banners on the streets and in public facilities, etc.

Attracting investments in projects that contribute to the sustainable development of the region may include investments in solar and wind power plants, energy efficiency programs, projects using renewable energy sources, and others. Such projects can create new jobs and contribute to the economic development of the region. Attracting investment in such projects can be done through various mechanisms, such as government support programs, private investments and joint investment funds.

Development of public participation and partnerships, which ensure active participation of residents in decision-making and development of the region. This may include participation in the city planning process, infrastructure development and environmental protection measures. Partnership between the public, the state and business is also an important element of sustainable development [7]. The development of public participation and partnership can be carried out through various mechanisms, such as consultations with the public, formation of public councils and committees,

cooperation with non-profit organizations and business.

Evaluating the effectiveness of measures for the sustainable development of the region allows timely adjustment of strategy and actions. This process allows you to assess how successfully the set goals were achieved and how the results can be improved.

For the effective functioning of each of these mechanisms, it is advisable to use "Europeanization". It consists in studying and introducing into the system of public management of Ukraine the best experience of using management mechanisms of EU member states, implementation of national legal norms, standards and procedures to EU norms, rules and requirements. First of all, this is the perception of general principles of social development, such as democracy, effectiveness and efficiency of governance, rule of law, market economy; basic principles of public administration, such as good governance, openness, transparency. Practical steps in the implementation of mechanisms of public management of sustainable development, based on European principles, namely the priority of people in socio-economic development, will make it possible to restore the pace of achieving the goals of sustainable development of our country.

Conclusions. In modern conditions, Ukraine faces serious challenges that require the fastest possible response. Implementation of the policy of sustainable development has become more difficult, the threat of crises in the social sphere has increased, the competitiveness of the national economy has decreased, and there is a risk of slowing down Ukraine's European integration. In order to further support our country, it is necessary to adhere to certain rules of the European Union, among which the following stand out: acceptance of general principles of social development, such as democracy, rule of law, good governance; implementation of European standards and norms in the field of public administration; justification of approaches to ensuring the sustainable development of Ukraine in the conditions of European integration. One of the approaches that will help ensure the recovery of the country's development rate involves creating a sustainable development strategy in the face of new challenges and threats; restoration of infrastructure, which will ensure innovative development of the country; the use of environmentally friendly technologies and materials, which will reduce the negative impact on the environment; attraction of investments in projects that contribute to the sustainable development of the country; development of public participation in decisionmaking regarding the development of a separate community and the country as a whole; monitoring and evaluation of the effectiveness of sustainable development measures.

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# DIGITALIZATION OF THE ACTIVITIES OF THE CENTER FOR THE PROVISION OF ADMINISTRATIVE SERVICES ON THE EXAMPLE OF DISTRICT STATE ADMINISTRATIONS IN THE CITY OF KYIV

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Annotation. The article is devoted to the study of the current state and prospects for the development of digitization of administrative services in Ukraine as one of the main components of the formation of a service state. The article defines that the main idea of digitization of public services is to provide the population with high-quality administrative services in electronic form. In the process of research, the views of various scientists on the current state of integration of administrative services in the digital environment were considered and analyzed. Emphasis is placed on the factors that actualize the process of improving the level of digitalization of administrative services on the example of district state administrations in the city of Kyiv.

**Keywords:** digitalization, administrative service, electronic administrative service, service state, center for providing administrative services, Internet technologies.

Formulation of the problem. The implementation of digitalization of administrative services in the system of public administration is the embodiment of the process of electronic governance, the necessity and relevance of which does not cause any doubt, because it is a requirement of today, the next more perfect gradual step in the development of public relations. However, during the analysis, a number of procedural and technological shortcomings, as well as gaps in the regulatory and legal regulation of this issue, were revealed. It is impossible to increase the efficiency indicators of the provision of this type of services, unless the problem of their applied functioning and regulatory and legal support, which regulates this process of activity, is investigated in detail. Based on this and in view of the growing demand for receiving administrative services online, we note that the digitalization of the activity of centers providing administrative services is an actual direction of research and important in the conditions of the formation of modern society.

This topic is relatively new, but there are already scientific developments in this field and those related to it among Ukrainian researchers. The process of providing administrative services using Internet technologies was studied by: G. Pysarenko (2006), O. Yemelyanenko (2008), K. Afanasyev (2010), O. Malikina, V. Furatov (2014), I. Klymenko (2014). , K. Fuglevich (2015), O. Bukhanevich (2015), I. Tyschenkova (2017), B. Teteryatnik (2017), V. Kuybida, O. Karpenko, V. Namestnik (2018), I. Strutynska (2019) , Yu. Solomko (2020), I. Kravchuk (2021), T. Kovalova, O. Gunbina (2021) and others.

Thus, the relevance of the study is determined by the presence of a problem, the essence of which boils down to the existing contradiction, on the one hand, between the need to increase the efficiency of the activity of administrative service centers in the conditions of the formation of an information society, which is possible on the basis of the digitalization of these services, and, on the other hand, the lack of proper scientificapplied and methodical-technological support of the specified activity.

The aim of the study. The purpose of the work is to analyze the features of digitization of the activity of administrative service centers on the example of district state administrations in the city of Kyiv, search for gaps in regulatory and legal regulation, procedural deficiencies that arise in the course of providing this type of service, as well as formulating systemic administrative decisions to identify and problem solving.

To realize the goal of the research, the following tasks were defined: to analyze and summarize the organizational and legal principles of the provision of administrative services in Ukraine; to investigate the current state and features of digitization of the activity of centers providing administrative services; justify the approach regarding the availability and quality of the provision of administrative services (on the example of the activity of the Office (Center) for the provision of administrative services of the Desnyan District State Administration in the city of Kyiv).

Presenting main material. Services provided by the state and its bodies, municipal and other structures are public services. The official definition of the sphere of public services, and therefore of this type of services, is given in the Concept of Development of the System of Provision of Administrative Services by Executive Power Bodies, approved by the Decree of the Cabinet of Ministers of Ukraine dated February 15, 2006 No. 90. "Services provided by state authorities, local self-government bodies, enterprises, institutions, and organizations under their management, as emphasized in the Concept, constitute the sphere of public services." Clarification regarding the interpretation of the concept of "public services" is provided by the legislator, which states that the sphere of public services consists of services provided by state authorities, local self-government bodies, enterprises, institutions, and organizations under their management.

The opinion of O. Malikina and V. Furatov (2014) is valid in this context, which notes that services do not fundamentally coincide with the actual actions (performance of activities) of the performer, but exist as a separate phenomenon - a certain intangible good [1, p. 57].

Thus, the service must necessarily have a certain beneficial effect, and not only be oriented towards achieving a remote result. Orientation as the essence of the target basis of activity, although it is an essential characteristic of it, still does not describe the content of this activity with sufficient completeness and specificity. Therefore, the administrative service, although it has a special legal nature, which is considered inextricably linked with the legal status of the service user, should be characterized by its own socio-legal significance.

By classifying public services by the entity providing public services, it is possible to single out administrative services that have all the characteristics of public services.

Accordingly, administrative services and public services can be related as a part and a whole. In the scientific literature, a single interpretation of the definition of "administrative services" has not been developed.

The point of view of K. Fuglevych (2015), which defines the concept of "administrative service" as a public-authority activity, seems valid, which is carried out in accordance with the procedure prescribed by law and consists in the creation by the public administration body of individualized organizational and legal conditions for physical and legal entities to exercise their rights, freedoms, and legal interests at their request on a paid or free basis [2, p. 16]. According to K. Afanasyev (2010), administrative services are public (that is, state and municipal) services provided by executive bodies, executive bodies of local self-government and other authorized entities, and the provision of which is related to the exercise of power [3, p. 28]. G. Pysarenko (2006) proposes to consider the administrative service as a legal relationship arising from the realization of the subjective rights of a natural or legal person (at their request) in the process of publicauthority activity of an administrative body to obtain a certain result [4, p. 47].

Having summarized the scientific approaches to the definition of the concept of "administrative service" and aligning them with the normative consolidation of this concept, it seems appropriate to define administrative services as the activity of subjects of public administration to ensure the rights of individuals or legal entities, which is aimed, on the one hand, at ensuring public interest, and on the other hand - to ensure the private interest of persons who applied to the subject of public administration for the purpose of obtaining an administrative service.

At the same time, it should be noted that the rather rapid development of electronic administrative services has been implemented or significantly improved during the quarantine regime. Regarding the definition of the concept of "electronic administrative service", it can be interpreted (O. Yemelyanenko, 2008) as: the process of creating and implementing management services by public authorities using information and telecommunication technologies within the framework of electronic interaction between society and the state [5, p. 20–22]; a legally established service provided by state authorities to citizens, enterprises, organizations and other state bodies (I. Klymenko, 2014) [6]; a service provided to citizens and organizations in electronic form using information and communication technologies.

Summarizing the opinions of scientists, it is worth concluding that the significant disadvantages that slow down the process of digital transformation in the field of administrative services are: 1) complexity, which makes it difficult to convert them into electronic form (Y. Solomko, 2020) [7]; 2) lack of electronic unified register; 3) lack of a list of priority administrative services for their conversion into electronic form; 4) imperfect legal framework regulating the provision of electronic administrative services; 5) the legal conditions for the protection of personal data are not defined; 6) lack of uniform principles, norms and rules ensuring the process of providing electronic administrative services; 7) lack of a unified strategy for the implementation of electronic administrative services at the national, local and local levels (O. Bukhanevich, 2015) [8, p. 60]. In order to overcome

the above-mentioned shortcomings, it is considered necessary to improve the regulatory and legal mechanism for ensuring the service activities of public administration entities in Ukraine.

Thus, it is worth noting that the digital transformation of the sphere of administrative services is provided through the creation of legal and material support for the provision of certain administrative services in electronic form.

A single approach to understanding the concept of "digital transformation" has not yet been developed. According to the researchers of the I-Scoop company, digital transformation should be understood as a fundamental transformation of business and organizational activities, processes, competencies and models to ensure changes and the possibility of combining digital technologies and their strategic (priority) acceleration in society, taking into account the current state and the future of development [9].

V. Kuibida, O. Karpenko and V. Namestnik (2018) defined digital transformation as changes in the nature of a person, his thinking, life and management caused by the use of digital technologies) [10, p. 6]. The term "digitalization" comes from English and means "digitization", "digitization", or "digitalization".

As B. Teteryatnik (2017) notes, the term "digitalization" covers a wider range of meanings than its synonym "digitalization". This is due to the fact that it is in the European and American research traditions that the consequences of the transition from analog to digital coding of information began to be studied not just as technological, but also as social, cultural and anthropological processes) [11, p. 21–23].

Analyzing the term "digital transformation", it is considered appropriate to state that: 1) there is no single meaningful definition of this concept, and 2) this term is used mainly in the field of business (entrepreneurship).

However, based on the positions of individual researchers (I. Strutynska, 2019), we come to the conclusion that under "digital transformation" it is necessary to understand the process of implementing information and communication technologies in the most important spheres of social life to ensure the proper functioning of a person, society, and the state and their interaction with each other) [12, p. 94]. These technologies, as already mentioned, are the processes of informatization, computerization, robotization, and digitization, which form the specifics of social relations in the digital sphere of Ukraine.

Thus, digital transformation as an object of public administration is understood as a system of measures to transform and improve various spheres of social life through the integration of information and telecommunication technologies into such spheres of social relations for the development of an open information society, increasing productivity, economic growth, job creation, as well as improving the quality of life of Ukrainian citizens.

The main goal of digitalization of administrative services is to facilitate communication with state authorities and local governments. However, in the process of implementation, the problem of the so-called "digital inequality" arose. The use of Internet technologies requires a person to have relevant knowledge and skills, but due to the low level of digital literacy, not all citizens can use the new way of obtaining

administrative services.

At this stage, the implementation of digitization of administrative services in our country is also accompanied by such a problem as the limitation of the procedure for obtaining certain services in electronic form only at its initial stage. I. Tyschenkova (2017) notes that such processes as submitting electronic documents, monitoring the process of receiving a service are not available to some users. So, for example, many TsNAPs currently do not provide an opportunity for individuals to receive electronic administrative services of an appropriate level. They only publish general information about the service, as well as post electronic forms and statements) [13, p. 126]. Today, there are two options for filling out the electronic application form - downloading the application, filling it out and sending it using an electronic digital signature, as well as by filling out the on-screen application form directly on the WEB page. And it is the second option that needs legal regulation. Currently, there is no mechanism that should regulate the issue of the signature or its analogue in the form of a screen, which is necessary to confirm the will of the parties, as a result of which there is no possibility of identifying the subject of receiving the service (I. Kravchuk, 2021) [14]. The next, but no less important and currently relevant legal problem of the digitization of administrative services is related to such a stage of providing electronic administrative services as the work of the service provider on received applications and documents.

The consequence of the specified problem is the impossibility at this stage of receiving an administrative service to determine the entity responsible for non-provision or improper provision of the service. It is also possible to state the fact of the presence of shortcomings in the regulation of the process of transition directly to electronic interaction between the participants of the process. Improvements in legal regulation also require certain technical aspects of the process of providing administrative services using Internet technologies.

Summarizing, it should be noted that the digitalization of administrative services in Ukraine is a process designed to simplify the procedure for providing administrative services, using Internet technologies. In order to solve these problems, we offer a number of recommendations that directly relate to the procedure for providing and receiving administrative services using Internet technologies, as well as legal aspects of their settlement.

The practical implementation of the proposal will have a positive effect on the digitization procedure.

The first group of recommendations includes: ensuring access to high-speed Internet throughout Ukraine, as well as conducting campaigns to improve citizens' digital literacy; creation of an effective document management system for the purpose of free access to electronic documents of subjects providing administrative services; improvement of the technical equipment of TsNAPs and ensuring the functioning of official WEB-pages, through which citizens will have access to receiving services in electronic mode.

The second group of recommendations includes: approval at the legislative level of an effective algorithm of interaction between entities providing administrative services online; approval of a special form of electronic signature or its analogue for applications and documents of a screen form, which are filled out directly on the WEB page in the process of receiving the service.

Summing up, it should be noted that Ukraine has all the opportunities to build an effective system of digitized administrative services. The strengthening of the influence of digital transformation on the implementation of activities by subjects of public administration is associated with several factors: 1) the general trend towards digitalization; 2) in conducting quarantine and other restrictive measures. As of now, it is an integral element of public administration, with the help of which the functional purpose of state executive bodies and those subjects to which their powers can be delegated is reflected.

The above-mentioned provisions also characterize executive and administrative activities in the field of digital transformation. It is appropriate to single out the following features of executive and administrative activity in the field of digital transformation:

- 1. has the power and administrative nature of powers delegated by the state;
- 2. has a sub-legal nature, that is, activities in the field of digital transformation are aimed at fulfilling the requirements of laws, because the most important goals, areas, forms and methods of influence are established at the legislative level, since all executive and administrative activity is based on the norms of law, which determines the limits of its direction;
- 3. scale, which is manifested in the managerial influence on the economy, socio-cultural and administrative-political spheres within the state and individual administrative-territorial units;
  - 4. has a systemic character that cannot acquire signs of fragmentation;
- 5. provides for the subordination of higher and lower functional units with a clear subordination and hierarchy in the system of bodies that carry out executive and administrative activities;
- 6. availability of a system of administrative coercion in cases of violation of current legislation;
- 7. controlled nature of the activity caused by the presence of bodies that control and supervise the implementation of public administration functions;
- 8. the directly organizational nature of managerial activity, which consists in the fact that in the process of execution and ordering at different levels, the joint activity of people is organized.

The system of executive authorities includes: 1) the Cabinet of Ministers of Ukraine; 2) central bodies of executive power; 3) local bodies of executive power: a) local state administrations; b) territorial bodies of the central executive body, which structurally do not belong to local state administrations. A similar system of state executive bodies is empowered in the field of digital transformation.

In the Center for the provision of administrative services of the Desnyan district, which is located in the premises of the Desnyan District State Administration at 29 Mayakovsky Avenue, work continues to improve the level of the provision of

administrative services and transfer the maximum amount of them to the electronic format, introducing the latest technologies.

On May 24, 2016, Kyiv Mayor Vitaliy Klychko took part in the opening of the branch of the Center for the Provision of Administrative Services on the Forest Massif and talked with residents. The opening of the first branch of the Administrative Services Center among the capital's districts was also visited by Deputy Chairman of the KMDA Mykola Povoroznyk, Director of the Department (Center) of Administrative Services of the KMDA Nataliya Shamrai, Acting. Viktor Krokhmalyuk, head of the Desnyan District State Administration, deputies of the Kyiv City Council of the 8th convocation, Vadym Onufriychuk and Mykhailo Ishchenko. "Despite the difficult economic situation, we are doing everything to make people feel that Kyiv is changing," the mayor emphasized. - Today we are opening a branch of the National Center for National Health and Welfare. I am sure that each of you will spend less time on processing documents, because you do not need to go to the district administration, where the National Center for National Health and Welfare is located, but come to your neighborhood and quickly and conveniently issue the necessary documents."

The requested services will be provided at the branch of the National Center for National Health and Welfare: 1) registration of the place of residence/residence of individuals; 2) deregistration of the place of residence of individuals; 3) affixing a photo card to the passport of a citizen of Ukraine upon reaching the age of 25 and 45; 4) replacement of a passport of a citizen of Ukraine in connection with loss, damage, change of surname (name, patronymic); 5) state registration of property rights to immovable property; 6) issuance of a certificate of participation in the privatization of housing of the state housing fund; 7) issuance of a certificate/duplicate of housing ownership; 8) issuance of certificates of parents and a child from a large family, extension of the validity period of the certificate.

In fulfillment of a separate mandate of the head of the State Administration of Desnyansk District in the city of Kyiv, Dmytro Ratnikov, dated 20.01.2022 No. 102/479 regarding the preparation of information for the public report on the work of the State Administration of Desnyansk District in the city of Kyiv for 2021, the Administration (Center) for the provision of administrative services provides the following information .

In the Desnyan district of Kyiv, the Office (Center) for the provision of administrative services of the Desnyan District State Administration in the city of Kyiv (hereinafter referred to as the State Administration) operates with two territorial divisions (in the premises of the Desnyan District State Administration in the city of Kyiv at the address: 29 Volodymyr Mayakovsky Ave. and a branch at the address: 39A Lisovyi avenue), where more than 151 administrative services are provided.

The full-time number of TsNAP is 47 people, the actual number is 46 people (of which 40 people are administrators). For 2020 84,097 applications (cases) were accepted for the provision of administrative services, in 2021, 26,292 more applications were accepted, amounting to 110,389 applications. The Desnyansk district administrative center is the leader in terms of the number of accepted applications in 2021 in the city

of Kyiv.

The greatest demand among the population in 2021 was services for registering the place of residence of individuals - 60,407 services were provided or 54.7% of the total number of accepted applications (in 2021, the number of applications increased by 9,357), the State Migration Service (issuance of a passport of a citizen of Ukraine in the form of an ID card, passport for traveling abroad, etc.) – 26,414 services or 23.9% (10,801 services were provided more than in 2020), in the field of activity of legal entities and individual entrepreneurs – 9,954 services or 9% (by 2,187 more services), services of the Department for Registration of the Executive Body of the Kyiv City Council (KMDA) – 2,569 services or 2% (by 1,185 more services), services of the Children and Family Service – 2,252 or 2% (895 more services).

Administrators of the National Center of the Desnian district are involved in the work of the single call center of administrative services in the city of Kyiv. In the reporting period, administrators provided more than 57,000 high-quality telephone consultations, as evidenced by citizen feedback.

Citizens are also consulted through social pages on the Internet (Facebook, Google, 2gis.ua) and e-mail.

In order to popularize activities and attract young people to the work of providing administrative services, TsNP successfully cooperates with Kyiv University named after Borys Grinchenko and Kyiv National University of Trade and Economics (KNTEU). In 2021, 16 students completed internships on the basis of TsNAP and branches.

During the period of quarantine measures due to the corona virus pandemic, the administrators of TsNP continued to work to meet the needs of the population. Administrative services were provided taking into account epidemiological restrictions in accordance with the decisions of the Standing Commission on Technological and Environmental Safety and Emergency Situations of the Executive Body of the Kyiv City Council (KMDA) and in compliance with sanitary requirements.

All the efforts of the administrators of the National Center for National Health and Welfare are aimed at providing high-quality services to citizens and minimizing the time it takes to receive administrative services. For this purpose, the administrators took part in online seminars, trainings, courses, tests for professional development and received 752 certificates.

In 2021, the list of administrative services was expanded. Services have been introduced for registration and issuance of a temporary residence permit, assignment of the sports category "Candidate for Master of Sports of Ukraine", "First category" in sports, registration of representative offices of foreign economic entities in Ukraine, confirmation of information about the ultimate beneficial owner of a legal entity and construction services.

Visitors to TsNAP can use the mobile for the "Action" relationship not only for personal identification, but also for transferring copies of digital documents. Also, for the convenience of applicants, there are self-service places with a computer, Internet access and the ability to print documents. This allows many visitors to receive services on their

own online. If necessary, administrators provide assistance.

TsNAP constantly improves its work, expands the list of services and ensures a comfortable stay for visitors. The work of the team is aimed at providing high-quality service to visitors and improving the professional level. Despite the active work on the digital transformation of the sphere of administrative services provision, the construction of an information society, and the implementation of state policy in this sphere, it seems necessary to highlight the shortcomings that are present in the modern system of providing electronic administrative services.

On the basis of a comprehensive analysis of theoretical developments, the provisions of the current legislation of Ukraine and the practice of its implementation, a theoretical generalization was made and substantiated conclusions and practical recommendations were formulated, which solve the task of increasing the effectiveness of the digitalization of the activities of the Central National Agency for Development, using the example of district state administrations in the city of Kyiv.

# Based on the results of the study, the following conclusions were formulated:

- 1. An analysis of the provisions of public administration in the field of digital transformation in Ukraine was carried out in correlation with the processes of practical implementation.
- 2. Public administration in the field of digital transformation should be considered as an activity of public administration subjects regulated by laws and other regulatory legal acts.
- 3. The digital transformation of public administration should be understood as a system of measures for transformation, improvement through the integration of information and telecommunication technologies of the activities of public administration subjects.
- 4. The approaches to defining the concept of "electronic administrative service" are singled out, namely: the process of creating and implementing management services by public authorities using information and telecommunication technologies.
- 5. Formulated This is the definition of a regulatory act as a tool of public administration in the field of digital transformation.
- 6. Attention is focused on the fact that a branch feature of individual acts of public administration in the field of digital transformation is their purpose the implementation of the competence of the public administration body in the field of digital transformation.
- 7. It was established that the conclusion of administrative contracts as an external reflection of the instrumental mechanism of public administration in the field of digital transformation is characterized by the following specific features: it is an intermediate link between public administration of the primary type and public administration determined by the processes of digital transformation; the parties to administrative contracts in the specified area are mainly public organizations and subjects of power; substantively, administrative contracts in the specified area are aimed at forming strategic directions for the introduction of information and telecommunication means into the practical activities of public administration subjects.

8. It is proposed to adopt the Concept of the development of public administration in the field of digital transformation, which should define: the problems of applying information and telecommunication technologies.

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# PEDAGOGY AND PSYCHOLOGY

# NORMS AND RULES FOR DEVELOPING A FOREIGN LANGUAGE TEACHING STRATEGY AT INSTITUTIONS OF HIGHER EDUCATION

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Annotation. This article discusses the norms and rules for developing a foreign language teaching strategy at institutions of higher education. The author highlights the key stages of strategy development, from analysing students' needs and identifying language levels to integrating technology, promoting independent learning and supporting teachers. The article provides specific recommendations and tools for optimising the process of language teaching in the university environment to ensure the successful development of students' language skills.

**Keywords:** institution of higher education, language teaching, teaching strategy, language levels, teaching methods, independent learning, technology integration, academic staff support.

**Introduction.** In today's globalised world, knowledge of foreign languages has become essential for personal development and success in various aspects of life. Foreign language skills are particularly important for students of institutions of higher education who wish to obtain a quality education and competitive advantages in the labour market. Language learning in higher education has a number of specificities and requirements, and its success depends largely on how the learning strategy is developed and implemented.

This article analyses the norms and rules for developing a foreign language teaching strategy at institutions of higher education. We will consider the key stages and aspects that need to be taken into account when developing and implementing an effective strategy that promotes the development of students' language skills. From analysing student needs and identifying language levels to choosing teaching methods, integrating technology, facilitating independent learning and supporting teachers, each of these aspects plays a key role in shaping a successful foreign language teaching strategy in higher education.

The article aims to provide clear guidance and practical advice for academic staff and authorities who want to improve the quality of language teaching and equip students with the skills they need for successful professional and personal development.

**Literature review.** Teaching foreign languages in higher education is an urgent and challenging task that requires improving teaching methods and strategies. The issues of developing a strategy for teaching foreign languages at institutions of higher education have become the subject of intensive research and discussion in the academic community. The literature review helps to identify the main trends, approaches and recommendations that shape the modern methodology of foreign language teaching in higher education.

One of the main theoretical underpinnings of modern language teaching is the concept of communicative learning. Roberts and Byard (2004) highlight the importance of developing language skills aimed at real-life communication and emphasise an interactive approach to language teaching. Some researchers, such as Grattan (2016), emphasise the importance of tailoring foreign language learning to students' specific needs and goals. This may involve developing individual learning plans and using different methods for different types of students. Modern technologies play an important role in foreign language learning. Interactive platforms, mobile applications and online resources can greatly facilitate the language learning process (Hubbard, 2017). Some studies also focus on the use of virtual reality and artificial intelligence to enhance language learning (Sundararajan et al., 2020). The concept of independent learning is becoming increasingly important in the context of higher education. Research by McEachran and Harvey (2016) points to the importance of developing independent language learning skills and providing students with tools for self-regulation. The success of a foreign language teaching strategy in higher education is highly dependent on teacher support and training (Friedrich, 2015). Literature reviews, such as the one presented by King (2018), examine different aspects of teacher training and their role in the learning process.

This literature review demonstrates the diversity of approaches to the development of foreign language teaching strategies in higher education. From communicative teaching to the use of technology and the promotion of independent learning, these studies provide a valuable context for the further development and implementation of effective language teaching methods in higher education.

The purpose of the article is to systematise and review the norms and rules for developing a foreign language teaching strategy at institutions of higher education. Our aim is to create a comprehensive guide for academic staff and authorities of institutions of higher education. This will help to optimise the process of foreign language teaching, ensure that students achieve the best results and improve the quality of language teaching.

While conducting the study we outline some research objectives:

- to analyse students' needs. Here we need to review methods and tools for gathering information about students' language learning needs, to determine how this information can be used to formulate a teaching strategy.
- to identify language levels. Considering different methods of identifying students' language levels and determining their importance in planning the learning process plays a pivotal role in teaching strategy.

- to choose teaching methods. While getting ready to teach students we need to explore different pedagogical methods and strategies for teaching foreign languages and identify their advantages and disadvantages in the context of higher education.
- to integrate technologies. It is necessary to consider the possibilities of using modern technologies in the learning process and their impact on learning effectiveness.
- to promote independent learning. While teaching we are to offer strategies and tools to develop students' independent learning skills.
- to support academic staff. It is last but not the least point to be considered to make recommendations for the professional training of academic staff, providing them with the necessary resources and psychological support.

These objectives aim to develop specific recommendations and practical tools for creating an effective strategy for foreign language teaching in higher education that meets the needs of students and ensures their successful development in this key area of education.

The main methods used in the study include:

- literature review in order to gather information on the key aspects of teaching strategies, a systematic analysis of scientific literature and research related to foreign language teaching in higher education has been carried out;
- analysis of documents and regulations official documents, standards and regulations on language teaching in higher education have been analysed;
- survey of students and academic staff in order to identify their needs and views on the process of foreign language teaching, as well as practical problems and recommendations, a survey of students and academic staff has been carried out;
- analysis of pedagogical practices the pedagogical practices and methods already used at institutions of higher education for teaching foreign languages have been analysed as part of the study.

These methods allowed us to obtain diverse and in-depth information on strategies for foreign language teaching in higher education and the development of recommendations for improving the learning process.

**Results and discussion.** This article presents the results of our research aimed at analysing the norms and rules of developing foreign language teaching strategies at institutions of higher education. The study covered a wide range of aspects that influence the process of teaching and developing students' language skills. The findings are presented in different sections, each reflecting a particular aspect of our research.

- 1. Analysis of students' needs. The first stage of our study was to analyse the needs of students when learning a foreign language in higher education. Analysing students' needs in language learning is an important step in formulating a strategy, as it helps focus on how to organise and streamline the learning process to achieve the most effective results. There are some specific steps that can be taken when analysing students' needs:
  - a) conduct a survey of students;
  - b) interview students;
  - c) analyse previous learning;

- d) analyse the specifics of the programme and subject;
- e) discuss with academic staff and professionals who can provide important insight into students' learning needs.

To do our study, we used a questionnaire survey of students (overall 195) studying foreign languages at different universities (Taras Shevchenko National University of Kyiv, National University of "Kyiv-Mohyla Academy", Kyiv National University of Technologies and Design) (Table 1).

Table 1. Students' needs in learning a foreign language

	1 <sup>st</sup> year students	2 <sup>nd</sup> year students
What is your main reason for learning a foreign lang	guage?	
To improve my language skills for career development, %	74 %	82 %
To prepare for an exam or certification, %	24 %	19 %
To travel and communicate with foreigners, %	78 %	69 %
To exchange and learn more about a different culture, %	30 %	21 %
What makes you learn a foreign language?		
Improvement of my chances for a better job position, %	71 %	78 %
Opportunity to travel and experience cultural exchanges, %	49 %	52 %
Academic responsibilities and studies, %	65 %	53 %
Personal interest in other languages and cultures, %	35 %	23 %
Which activities do you think would help motivate you foreign language?	to learn a	
Using interactive online resources that make language learning fun and provide opportunities for interaction	54 %	42 %
Blended learning, which combines online and offline teaching to provide more flexibility and opportunities for self-study	23 %	41 %
Participation in exchange programmes, international internships, etc	85 %	87 %
Working with other students to learn together, as group learning can be motivating and effective	21 %	15 %

Source: own research

The main findings of this analysis include the need for practical language use – the majority of students stated that their main goal in learning a foreign language was to be able to use the language practically in their future careers and in international communication; individual needs – the analysis showed that students have different

individual needs for language learning, such as academic purposes, cultural exchange, travel and others; motivation – a significant number of students indicated that their motivation to learn foreign languages increased when they participated in practical projects, international internships and exchange programmes.

- 2. Identification of language levels. The second stage of the study aims to identify the language levels of the students. Institutions of higher education often use a system of language levels, such as the CEFR (Common European Framework of Reference), to define entry and target levels of learning. This helps students to understand what level they are expected to achieve. Defining language levels is an important step in developing a strategy for teaching a foreign language in higher education. It helps ensure that teaching is appropriate to the needs and level of the students. Various assessment methods were used for this purpose, including placement tests, reading comprehension tests, listening comprehension tests, writing assessments, observations, teachers' feedback and student self-assessment. The main findings of this phase include diversity of language levels (the study showed that students have different language levels, from beginner to advanced which is important to consider when planning the learning process); the existence of gaps (specific language skills have been identified where students need the most improvement that can be used to develop individualised learning programmes).
- 3. Choice of teaching methods. The third stage of the study aimed to select effective methods for teaching foreign languages to students in higher education. The choice of methods for teaching a foreign language in higher education is an essential step in developing a strategy, as it determines how the material will be presented and how students will be engaged in learning. We investigated different pedagogical approaches and their impact on learning outcomes:
- Listening involves listening to and understanding spoken language. Students can listen to audio recordings, audio books, native speakers and more. This helps develop listening comprehension skills.
- Reading reading texts in a foreign language, such as books, articles, newspapers
  or websites, develops reading and comprehension skills in written material. Text tasks
  and exercises can be used to improve this aspect.
- Speaking it is an important part of learning. Students can use role-plays, dialogues, presentations and other exercises to develop their oral skills.
- Writing involves producing essays, articles, letters, e-mails and other written material in the foreign language.
- Interactive methods using interactive methods such as group discussions, collaborative projects, role plays and interaction with native speakers creates a favourable language environment.
- Use of technology using modern technologies such as web-based learning platforms, online courses, mobile applications and video tutorials enhances learning.
- Blended approach combining different learning methods creates a more varied and effective course.
  - Assessment and correction continually assessing students' progress and

adjusting teaching methods according to their needs and achievements can motivate students to improve their knowledge.

To learn the students' best choice of teaching methods, we used a questionnaire survey – 195 students participated, who are studying foreign languages at different universities (Taras Shevchenko National University of Kyiv, National University of "Kyiv-Mohyla Academy", Kyiv National University of Technologies and Design) (Table 2).

Table 2. Students' best choice of teaching methods

	1 <sup>st</sup> year students	2 <sup>nd</sup> year students	
What is your best choice of teaching methods for learning a foreign language?			
Listening, %	87 %	67 %	
Reading, %	43 %	34 %	
Speaking, %	88 %	79 %	
Writing, %	42 %	31 %	
Interactive methods, %	84 %	82 %	
Use of technology, %	92 %	91 %	
Blended approach, %	56 %	62 %	
Assessment and correction, %	24 %	26 %	

Source: own research

The main findings of this phase include – active learning (by using active methods such as group projects and discussions, students showed better results in developing their language skills) and interactivity (the use of interactive technologies and online resources has a positive impact on student motivation and retention).

4. Planning the learning process. The fourth stage of the study deals with the issue of planning the learning process for foreign language teaching in higher education. It is an important step in developing a strategy for teaching a foreign language in higher education. This process involves creating a detailed plan that defines the sequence of topics, teaching methods, time allocation and methods of assessing students' progress. During the learning process planning one should define learning objectives and expected learning outcomes. These could be, for example, reaching a certain level of language proficiency, preparing for an exam, developing specific language skills or achieving academic goals. Then comes selection of learning materials – textbooks, resources, audio and video materials that are appropriate to the learning objectives and level of the learners. Materials should be engaging and in line with current language trends.

Third follows development of a curriculum – a detailed course of study that includes the sequence of topics and activities, and allocates time and resources, considers how all language skills (listening, reading, writing, speaking) will be developed at different stages of learning. Teaching methods can be mentioned only after the curriculum development – choosing the methods that best meet the learning objectives and the needs of the learners, considering the use of interactive exercises, role play, projects, technology and other active learning methods. Last but not the least goes assessment (written and oral tests, quizzes, portfolios, presentations and other forms of assessment) evaluation and improvement (analysing learning outcomes, gathering feedback from students and teachers, and refining your learning strategy based on lessons learned).

Planning the learning process helps to ensure that learning is structured and systematic and that objectives and outcomes are achieved. This process can be adapted to meet the current needs of learners and the skills of teachers. The findings include curriculum optimisation and use of authentic materials which help develop practical language skills.

- 5. Integration of technology. The fifth stage of the study focuses on the integration of modern technologies into the language teaching process. Integrating technology into the foreign language teaching process in higher education can significantly increase the effectiveness and engagement of students. Recent years have seen a bloom of interest in using computers for language teaching and learning. Computer-assisted language learning (CALL) gives us an opportunity to mention some ways in which technology can be used to integrate learning:
- Use of web-based learning platforms creating dedicated web-based platforms or using existing platforms (e.g. Moodle, Blackboard) to host learning materials, assignments, tests and to communicate with students. This allows students to access learning material at any time and from any device.
- Online courses and interactive platforms using online language courses such as Duolingo, Pearson or other interactive language learning platforms allows students to learn at their own pace and with interactive exercises.
- Audio and video materials help develop listening and speaking skills. Through video tutorials, audio books, classroom videos and more, students can immerse themselves in the language by hearing and seeing it used in different contexts.
- Mobile applications many apps offer games, quizzes, audio and video materials that develop language skills.
- Use of social media here students can discuss topics, share useful resources and connect with native speakers or other students.
- Virtual tours and language games it enables to teach language in a fun and interactive way that can encourage students to explore the language and culture.
- Video conferencing and chatting with native speakers organising video conferences or chats with native speakers help students interact with real-life interlocutors.

The integration of technology helps to make language learning more accessible, interesting and effective. It is important to be prepared to constantly update and adapt

technological tools in the learning process to ensure the best results for students. The main findings of this phase include the effectiveness of online resources and multimedia skills. This helps improve students' auditory and visual skills.

- 6. Encouraging independent learning. The sixth stage of the study deals with the facilitation of students' independent learning. Promoting independent learning is an important part of the strategy for teaching a foreign language in higher education. This stage allows students to develop skills of independence, self-regulation and responsibility for their own learning. To encourage independent learning academic staff can take some specific steps: - create guidelines and resources (these can include online courses, language apps, textbooks, recommended sources, etc.); - teach selfregulation skills (how to effectively manage their time, set goals and create study plans, how to prioritise and allocate resources to maximise results); - organise independent tasks (this could be doing extra practice, studying specific topic material or working on individual projects); - self-testing and assessment (this can include self-testing, written self-assessment tasks, and analysis and correction of their own mistakes); - give teacher support (provide opportunities for students to consult with teachers and receive feedback on their independent learning, teachers should be available to answer questions and provide additional support); - create a network for independent learning (they can share experiences, advice and support); - motivation and goals (help students to stay motivated and focused on achieving their goals); - supply resources for further study (provide students with access to libraries, electronic resources and other tools to further their language learning); - develop self-monitoring skills (teach students to analyse their performance and make adjustments to their learning to achieve better results). Encouraging self-directed learning helps students develop key skills that will serve them well in the future and increases their ability to study the language independently outside the university.
- 7. Support for academic staff. The seventh stage of the study concerns support for academic staff in implementing language teaching strategies. Academic support is crucial to the success of a foreign language teaching strategy in higher education. Teachers who feel supported and have access to resources and training can provide quality learning for students. There are some specific ways to support academicians:
- Professional development. It is necessary to provide academic staff with opportunities for professional development and refresher courses to improve teaching methods and language skills.
- Resources for teachers. Providing access to up-to-date teaching materials, books, online resources and teacher guides is essential.
- Support with the learning process planning. University authorities have to give methodological support to academic staff in planning and implementing the learning process, including curriculum development, classroom management and student assessment.
- Technology support. It is crucial to supporting academic staff in integrating technology into their teaching and provide access to the necessary equipment and

software.

- Opportunities for communication and sharing. One can create forums, workshops, regular meetings and other opportunities for educators to share experiences, best practice and ideas.
- Support for student assessment. Institutions of higher education have to assist with clear assessment criteria and help teachers analyse and understand student performance to improve teaching methods.
- Psychological and emotional support. Especially under current conditions with the Russian invasion of Ukraine we have an urgent need to determine the psychological state of teachers, understand that they may feel pressured and stressed by teaching and provide counselling and psychological support.
- Motivation and recognition. Recognising and rewarding the achievements of staff, motivating them to provide the best possible environment for students and to continually improve play one of the leading roles in academic support.
- Flexibility and adaptation. It is necessary to consider adapting curricula and teaching methods based on changes in the demands and needs of students and the modern world.
- Creating a supportive language environment. All students want to practise the language in real-life situations so it is highly recommended to enable academic staff to create a language environment.

Support for academic staff is important to improve the quality of language learning and to develop pedagogical skills that influence student success. Collaboration and support between administration and university staff creates a favourable learning environment. The main findings include professional development and psychological support in the form of psychological training and counselling, which contributes to improved teacher effectiveness and well-being.

These research findings serve as a basis for developing recommendations and formulating strategies for language teaching at institutions of higher education, with the aim of improving the quality of language teaching and achieving the best results for students.

Conclusions. In this article we have conducted a study aimed at analysing the norms and rules of foreign language teaching strategy formation at institutions of higher education. The main results of our study point to the importance of individualising approaches to teaching, adapting curricula to students' needs and using modern technologies in the process of foreign language teaching. In particular, we have found that analysing students' needs is an important first step in developing a learning strategy. Students have different aims and expectations from language learning and it is important to take these different needs into account when designing programmes. Identifying students' language levels is also a key aspect of developing a learning strategy. Understanding their current level will help teachers plan an effective learning process and provide appropriate support for students. We recommend the use of active and interactive teaching methods that promote student engagement and increase

motivation. It is also important to optimise curricula and use modern technologies to improve access to learning resources. Encouraging students to learn independently is another important component of the learning strategy. Developing self-regulation and information-seeking skills can help students to be more successful in learning foreign languages. Finally, support for academic staff in the form of professional development and psychological support plays an important role in the implementation of the learning strategy. Academicians who have access to the necessary resources and are aware of best practice are able to achieve learning goals more effectively.

In conclusion, our research shows that developing a foreign language teaching strategy at institutions of higher education is a complex and multifaceted process that requires an individual approach to students and constant updating of approaches and methods. Developing an effective teaching strategy will help to improve the quality of language teaching and ensure students' success in their studies and later in their careers.

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# THE PROBLEM OF DEVELOPING FOREIGN-LANGUAGE COMMUNICATIVE COMPETENCE AMONG ECONOMICS STUDENTS

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Annotation. This article delves into the problems of developing foreign language communication proficiency among economics students. Through extensive analysis and empirical research, it uncovers the complexities of language proficiency, sociocultural awareness, and pragmatic skills in the context of economics education. The research provides ideas to inform strategies to enhance the global competence and career prospects of economics students in an interconnected world.

**Keywords:** communicative competence, modern approaches, language proficiency, economics students.

**Problem statement.** The acquisition of foreign language communicative competence is a crucial objective in the contemporary educational paradigm, particularly in economics-related disciplines. Equipping economics students with the necessary linguistic and communicative skills to navigate the globalized landscape has generated a rich discourse within the global scholarly community. In this context, the article examines contemporary tactics that support the development of foreign language communication capability among economics students.

The problem of cultivating foreign language communicative competence among economics students has received a great deal of attention in the world of academic literature. Scholars and researchers have explored the complex interplay of linguistic proficiency, socio-cultural awareness, and pragmatic acumen, all of which are essential components in the arsenal of business professionals operating in the global arena. As economics students embark upon this dynamic and ever-evolving field, they encounter a nuanced interface between their native language and mastering a foreign one. This juncture presents a ripe opportunity for in-depth exploration.

This article aims to unravel the diverse facets of contemporary pedagogical methodologies, innovative strategies, and empirical findings that provide the foundation for the formation of foreign language communicative competence among economics students. It navigates the complex terrain of language acquisition, examining how

linguistic proficiency intersects with economic acumen. The main goal here is to present a thorough analysis of the current research, while also identifying the challenges in this field and offering innovative ideas and solutions that can reform educational frameworks, guide instructional design, and enhance teaching practices. By examining how linguistic proficiency is intertwined with economic expertise, this study aims to enhance the academic and career opportunities of economics students, equipping them to thrive as global citizens and proficient communicators in an ever more interconnected and interdependent world.

Analysis of recent research and publications. Many scholars have studied the problem of developing students' foreign language communicative competence. Thus, in their publication A. Matiychak et al. state that ensuring comprehensive training in reading, listening, writing, and speaking is crucial for developing the communicative competence of future professionals in the field of economics and aspiring business leaders. This encompasses a thorough understanding of both the broader professional domain and specialized areas, setting the stage for their success [3].

L. Usyk et al. consider that learning foreign languages on the basis of professional orientation contributes to the formation of the future specialist's skills to communicate, establish business contacts, study foreign sources, analyze modern scientific achievements, improve skills and present ideas to the professional community. Professional communication competence develops such professional qualities as independence, self-control, responsibility, creative thinking, and professionalism [8].

L. Sikorska considers the concept of "competence" in the context of professional activity; it is understood as an integrative formation of a personality, which is a combination of various human competencies; and characterizes the level of readiness of a person to work, as well as the nature and effectiveness of its implementation; it is formed in the course of mastering the activity appropriate for him or her. According to the researcher, foreign language competence plays a significant role in the professional development of modern specialists, in particular, future economists, marketers, managers, etc. [7]. The researcher argues that communicative competence implies the availability of social psychology knowledge, the ability to use it and to take it into account in specific activities. The main sources that feed communicative competence are life experience, art, general human erudition, and special scientific methods. Activation of the communication potential of participants in business interaction is associated with an adequate understanding and implementation of communication functions in practice.

In his work, M. Iaburov characterizes the foreign language competence of the future economist according to the requirements of state standards of higher economic education at various levels, primarily the ability to communicate in a foreign language as a tool for improving one's professional and personal level, to work in an international context, to value and respect diversity and multiculturalism, to be able to communicate fluently in a foreign language orally and in writing when discussing the results of research and innovation, to carry out public business and scientific communications [2].

Panteleeva and Maleyeva's study suggests that the main conditions for the formation

of foreign language communicative competence among students of non-language specialties are interrelated training in all types of speech activity, taking into account psychological characteristics; the dominant role of exercises (a system of exercises based on the phased organization of language communication in the educational process); organization of role-playing communication in foreign language teaching [4].

Vasilieva describes foreign language communicative competence as a person's ability to successfully communicate, conduct professional and further educational activities in a foreign language in accordance with the tasks of foreign language communication situations in various intercultural situations, taking into account the linguistic and social rules followed by native speakers [9].

Scholars stress the significant role of foreign language communicative competence in the education and career development of future professionals, particularly in economics and business leadership. This competence encompasses language proficiency, along with a deep understanding of professional domains and the ability to navigate diverse intercultural contexts.

Recent research confirms that foreign language communicative competence is not simply a linguistic skill but a comprehensive formation of an individual's personality. It develops crucial professional qualities, such as independence, self-control, responsibility, creativity, and professionalism. Furthermore, it equips individuals with the necessary tools to communicate effectively, establish business relationships, analyze global sources of information, and present ideas within their professional communities.

The aforementioned scientific works are the fundamental scientific basis for diagnosing the foreign language competence of economics students in the process of learning a foreign language and acquiring the skills necessary for their future profession. However, a number of problems related to the formation of students' foreign language competence in the process of learning ESP remain unresolved, so there is a need to study them in detail.

The purpose of the article is to carry out a theoretical analysis and empirical study of foreign language communicative competence formation among economics students in the process of learning English for Specific Purposes.

At this stage of society's and education's development, personal competence is highly relevant. The term "competence" is used at the state level and in official documents, emphasizing the importance of forming and developing competencies to ensure the education system functions effectively.

The term "competence" originates from "competent", defined as the ability to perform tasks or make decisions according to one's knowledge and authority. Competence is evaluated based on one's ability to execute tasks with efficiency and high quality. It links knowledge to practical actions in various aspects of life and denotes the minimum experience and acquired qualities in a specific field [8].

A contemporary professional is formed as a result of independent learning and active acquisition of knowledge, focusing on self-control and self-development in all aspects. The academic proficiency of the learner, acquired during higher education,

which uncovers their potential and learning opportunities, plays a critical role in this process. Foreign language proficiency is a crucial component of academic competency for economics students. It empowers them to engage with a wide range of academic and research materials, conduct business correspondences, work efficiently with computers, access information on the Internet, and libraries of foreign universities, create presentations, communicate with colleagues from diverse cultural and linguistic backgrounds, and acquire new knowledge and skills. Knowledge of foreign languages is crucial in the development of professional skills for graduates in economic fields. Clear communication in multiple languages allows for a broader understanding of global economic trends and facilitates effective collaboration in an increasingly multicultural business landscape. Therefore, language proficiency is a necessary component of a well-rounded education in economics.

In the context of foreign languages, communicative competence signifies the comprehensive aptitude to use a foreign language effectively for communication. Interest in foreign language communicative competence arises from a shift in the language teaching and learning paradigm, where communicative goals take precedence over a static knowledge-based approach. This requires learners to have a lively command of the language rather than simply fulfilling a curriculum or complying with its requirements. Learning a foreign language can be a valuable tool in achieving both professional and personal goals. The use of a personal and active approach when teaching can help foster a positive attitude towards the learning process and ultimate results, minimizing the common perception of foreign language as a mere mandatory course within the curriculum.

However, the ultimate definition of communicative competence in a foreign language is still a topic of debate. The complexity of this concept's definition stems from various factors: intricate component composition, subjective nature, individualized character, and a wide range of implementations across domestic, professional, scientific, and technical spheres. The multidimensional nature of the communication process and the pursuit of different target purposes exacerbates the challenge. Moreover, the understanding of crucial terms such as "communication", and "competence" is controversial.

Foreign language communicative competence is a multicomponent notion that includes multidirectional competences to perform various speech and non-speech actions to achieve certain communication goals. Communicative competences are divided into those related to the knowledge of the surrounding world and personal value system and linguistic competences themselves, i.e. general and communicative speech competences.

In the Council of Europe "Common European Framework of Reference for Languages" communicative speech competences include linguistic, sociolinguistic, pragmatic competences. Linguistic competences are lexical, grammatical, semantic, phonological, orthographic, orthoepic competences. Sociolinguistic competence consists of linguistic markers of social relationships, rules of politeness, expressions of folk wisdom, register differences, dialect and accent. Pragmatic competence consists of

discourse competence, functional competence and speaking programming competence.

Competencies are the foundational element of learning, encompassing what should be taught and learned within an objective framework. Competency refers to a collection of knowledge, skills, and abilities acquired through training, as well as the capability to execute any activity based on such knowledge and skills. In the realm of foreign language acquisition, competency describes a level of language fluency, which is characterized by a set of interrelated competencies that include linguistic, discursive, speech, and communicative abilities. In contemporary literature, the list of competencies for foreign languages is expanded to include sociocultural, analytical, strategic, professional, social, and other skills. Nevertheless, without a projection of their future deployment, i.e. non-activity realization, they cannot all be encompassed.

We define foreign language communicative competence as a set of knowledge, skills and abilities necessary for realization of foreign language activity on perception and production of texts in a given situation of communication (context) in the language the user speaks and which is not his/her native language. It is necessary to take into account the main functions of communication, which are expressed not only in the exchange of information, but also in interaction and perception, as well as the subject-subject nature of communication. Taking into account the difference between the concepts of "competence" and "competency", competencies are a part of the whole, forming its unity and constituting the activity side of foreign language use, and competence is a personal quality, including emotional and value attitude to the actions performed. Actually, foreign language proficiency can be competence as a separately considered personality property and competency as a part of general professional training of a future specialist. The components of competence are competencies that provide speech and non-speech activities of a language user, which are formed and developed in the university training.

When it comes to the students of non-linguistic universities, it is necessary to designate the foreign language as a non-core subject, which is, however, interdisciplinary in nature, included in the disciplines of compulsory study for future specialists of all specialties and focused on both personal and professional qualities of the future specialist.

The Council of Europe has actively worked to provide stakeholders in language education with effective recommendations through the Common European Framework of Reference for Language Education. This framework emphasizes an activity-based approach to language learning. The essence of this approach is that language users are first and foremost members of society, performing specific tasks in specific contexts, environments, and fields of activity. The various speech activities are integral components of a broader social framework which provides them with complete meaning [1]. Speech activity is a crucial aspect of the broader social interaction and communication skills of a language user. It involves the use of both general and specialized communicative speech competencies.

Therefore, narrowing the definition of foreign language communicative competence to professional foreign language communicative competence, it is important to emphasize that professional foreign language communicative competence belongs to the sphere of professional readiness and implies the ability to use a foreign language in the sphere of professional communication. This is particularly vital for students graduating with a degree in economics. According to the researchers, foreign language competence plays an important role in the professional development of modern specialists, especially future economists, marketers, managers, etc.

The methodological basis for teaching a foreign language to future economists involves employing communicative and activity-oriented approaches, along with modern information and communication technologies and interactive teaching methods.

The primary challenge in creating communicative situations for future economists is the use of professional vocabulary rather than everyday vocabulary, which is mostly used by economists in professional conversations. The areas in which economic vocabulary finds application comprise finance, macro- and microeconomics, marketing, management, accounting, project management, among others.

The specificity of economic disciplines aims to demonstrate the behavior, modifications, and adaptations of various subjects under different market conditions, as well as the subsequent changes in inherent characteristics of any reacting objects. Effective training in such disciplines cannot be achieved by using traditional methods of work like lectures and seminars, so economic education is characterized by specific teaching methods based on interactive methodology: business games, brainstorming, case method, round tables, group discussions, etc.

In order to develop the foreign language competence of future economists, L. Sikorska proposes a special program based on the situational theory [7]. According to the proposed situational-integrative approach, there is a transition from performing single professionally oriented speech and thinking tasks to direct professional activity. The requirements for this activity are the main ones for creating the contextual principle of completing and deploying learning quasi-professional situations. Thus, the more diverse the problems that serve as the content basis of the situation, the greater the requirements for the knowledge, skills, and abilities of economic students who have to solve the task. Therefore, the complexity of speech and mental activity is constantly growing, which stimulates students to further work on their own speech competence and expands the scope of social competence.

In the context of solving professional tasks, students learn the material more effectively, as such tasks create conditions for the formation of internal motivation. The learning process already acquires personality-oriented content, as it involves the formation of one's strategy for a particular situation, the use of a creative approach to solving a problem, which ensures the creation of a positive emotional mood in students, and satisfaction as a result of mastering the elements of professional work.

In their Business English course, A. Matiychak and her colleagues emphasize developing students' self-confidence in order to become successful in their future professional activities. All four types of speaking activities are practiced in specific practical situations, such as job applications and resume preparation, participation in job interviews, writing business letters, and reviewing the work of different departments in

companies [3].

- S. Radetska proves that the use of modern information technologies in the process of teaching future economists to read in English creates high individualization of reading training (variation in the mode of working with text applications, which is as close as possible to the sphere of interests and desires of each student; regulatory individualization due to the flexibility of educational materials, their volume, the choice of the exercises, determining the optimal degree of teacher intervention in the educational work of students [5].
- I. Romanov considers the case method to be one of the most effective teaching methods, the advantage of which is the possibility of optimal combination of theory and practice, which is important for the formation of foreign language communicative competence of future economists. The application of the case method in a learning situation allows us to speak of it as a new technology, which can solve the problems of a personality-oriented approach to learning [6].

It is noteworthy that a number of Ukrainian researchers, analyzing various aspects of the formation of foreign language competence of economics students and its varieties, propose to improve its level in the process of educational activity.

Conclusions. The analysis reveals that the foreign language competence of future economists is a set of knowledge, skills, and abilities that enable them to use a foreign language successfully both in their professional activities and for self-education and personal development. Moreover, it ensures a certain level of cultural proficiency in both written and oral communication and non-verbal behavior. As the world becomes increasingly interconnected, it is crucial to integrate comprehensive foreign language education into curricula that emphasize practical language skills in professional settings. This will equip future economists, marketers, managers, and other professionals to excel in the global landscape, promote diversity, and engage in effective cross-cultural communication. In essence, foreign language communicative competence is emerging as a cornerstone for success in a rapidly evolving globalized society, shaping not only the way we communicate but also the way we approach our professional endeavors.

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# DEVELOPING A MODEL FOR DIGITAL COMPETENCE OF A FOREIGN LANGUAGE TEACHER

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Annotation. This article explores the significance of digital competence in the context of Ukrainian higher education. It emphasizes the importance of integrating digital tools into teaching, offers insights into existing frameworks for digital competence, and highlights the challenges teachers may face in this regard. The article presents a comprehensive model for the development of digital competence among foreign language teachers. This model focuses on principles such as purposefulness, integration with the educational process, continuous learning and self-development, collaboration and experience sharing, and individualization. It also underscores the importance of clear assessment and feedback mechanisms to help teachers gauge their progress.

Furthermore, the article provides insights into various information and communication technologies (ICT) tools used by foreign language teachers in Ukrainian higher education. It discusses how electronic textbooks, interactive whiteboards, virtual tours, video conferencing, and other digital resources can enhance language learning and improve student engagement.

The article acknowledges challenges in developing digital competence among teachers, such as time constraints, limited technical knowledge, lack of confidence, and resource scarcity. To address these challenges, it emphasizes the importance of administrative support, training, and technical assistance for educators.

**Keywords:** digital competence, foreign language, model for digital competence of a foreign language teacher.

**Introduction.** Digital competence is almost the main key competence that should be formed in a higher education teacher, in the current conditions of development and functioning of the higher education system of Ukraine. This is confirmed by a number of regulatory documents, such as the National Qualifications Framework [6], the Standard

for the group of professions «Teachers of Higher Education Institutions» [13], the «Professional Standard of Teacher» [10], approved in 2020, which includes the following core professional competencies linguistic and communicative; subject-methodical; information and digital; psychological; emotional and ethical; inclusive; health; design; prognostic; organizational; evaluative and analytical; innovative; reflective; lifelong learning and the ability to carry out pedagogical partnership, etc.

Digital competence is understood as the confident, critical, and responsible use and interaction with digital technologies for learning, working, and participating in society, which includes information literacy and data use, communication and collaboration, digital content creation (including programming), security (including digital well-being and cybersecurity competencies), etc. [7].

Digital skills are defined as a set of abilities to use digital devices, communication applications, and networks to access and manage information, which are necessary for learning, and working in a rapidly evolving digital world (UNESCO, 2018; University of Bath, 2021) [2].

The analysis of the scientific literature suggests that the digital competence of a teacher implies the availability of various knowledge, skills, and abilities in the use of information technologies in the educational process, including:

- Knowledge of the theory and practice of using information and digital technologies in the educational process, including familiarization with modern approaches to the use of information and digital technologies that can be used to improve the quality of education and increase the effectiveness of students' knowledge.
- Possession of practical skills in working with various software tools and services for creating, editing, and designing educational content, as well as video conferencing and other information and communication technologies (ICT) for interaction with students and colleagues.
- Ability to apply ICT in the educational process and organize classes using various ICT tools, including the creation of digital content, video lectures, interactive exercises, and tasks, as well as the use of specialized learning platforms.
- Development of critical thinking and ethical behavior on the Internet, including the ability to identify sources of information, assess its reliability and use information in accordance with intellectual property rules and ethical standards.
- Communication skills to interact with students and colleagues in an electronic format, including the ability to communicate effectively using email, social media, instant messengers, and other communication tools.
- Readiness for continuous self-improvement and self-education in the field of ICT and the development of new methods of using these technologies in their professional activities.

The above allows us to consider the formation of digital competence as a complex process that involves not only the development of relevant knowledge and skills in digital literacy but also the formation of the teacher's readiness to use information and communication technologies. Thus, these processes are interrelated and require certain

and sometimes significant efforts on the part of the teacher.

**Purpose of the article:** to reveal the essence of the concept of teachers' digital competence; and to identify the main components of a foreign language teacher's digital competence on the basis of the study.

**Research methods.** During the study, theoretical and empirical methods were used. The theoretical methods include analysis of regulatory documents and scientific literature; comparison and systematization to identify and substantiate pedagogical conditions. The empirical method was a survey of foreign language teachers to determine their readiness to use information and digital technologies in their professional activities.

**Theoretical Consideration.** To develop a model and methodology for diagnosing the formed digital competence of a foreign language teacher, which could be implemented independently of dissertation research and adapted to the defined goals, we need to analyze the models that already exist and are being implemented by scientists around the world.

European research communities and practitioners developed and presented the European Digital Competence Framework for Citizens (DigComp) in 2016-2017 [1; 8]. This conceptual reference model is built in 5 dimensions, which outline the following areas: information and data skills, communication and cooperation, digital content creation, and security. The framework also provides relevant descriptors and names of competencies (related to each area); literacy levels (for each competence); and examples of knowledge, skills, and attitudes (applied to each competence). It should be noted that this model is aimed at implementing the Europe 2020 strategy, which defines the key role played by information and communication technologies to support European citizens, and increase confidence in ICT and competitiveness.

The Digital Competence Framework for Educators (DigCompEdu) was developed in 2018. It is a scientifically based framework that describes in detail the competence of teachers in digital technologies. Thus, the Digital Competence Framework for Educators (DigCompEdu) is an initiative developed by the European Commission to promote digital competence among educators in Europe. It is an extension of the broader Digital Competence Framework for Citizens (DigComp), which aims to provide a common reference framework for digital competence across Europe.

DigCompEdu is specifically designed to address the needs of teachers, trainers, and other educational professionals by defining the digital competencies they should possess to effectively integrate digital technologies into their teaching practices. The framework consists of a set of competency areas and descriptors that help educators assess and develop their digital skills.

The DigCompEdu framework is organized into six key areas of digital competence: Information and Data Literacy: Educators should be able to find, evaluate, and manage digital information and data effectively. This includes skills related to searching for information online, critically assessing the reliability of online sources, and handling data in educational contexts.

Communication and Collaboration: This area covers skills related to using digital

tools and platforms for communication and collaboration, both with colleagues and students. Educators should be proficient in using email, social media, and other digital communication tools.

Digital Content Creation: Educators should be able to create and adapt digital content for educational purposes. This includes the ability to produce multimedia materials, design digital learning resources, and understand copyright and licensing issues.

Safety: This area focuses on digital safety and security. Educators should be aware of online risks and threats, understand how to protect their personal and professional data and teach students about digital safety.

Problem-Solving: Digital competence includes using technology to solve problems and make informed decisions. Educators should be able to troubleshoot common technical issues and encourage critical thinking among their students.

Pedagogy: This aspect of the framework emphasizes the integration of digital technologies into teaching and learning. Educators should be able to design effective digital learning activities, assess digital skills, and adapt their teaching methods to meet the needs of digitally literate students.

DigCompEdu provides a structured framework for educators to self-assess their digital competencies, identify areas for improvement, and set goals for professional development. It is intended to support the effective use of digital technologies in education, which is increasingly important in the 21st century.

Educational institutions, policymakers, and teacher training programs can use DigCompEdu to guide curriculum development and training initiatives to ensure that educators are well-prepared to navigate the digital landscape and provide high-quality, digitally enhanced education [1].

It should be noted that contemporary Ukrainian researchers are creating models for the development of teachers' digital competence in various subjects.

V. Yu. Kyva has developed and experimentally tested a professionally oriented model of ICC of teachers in the military education system in remote learning. Its main blocks are conceptual (containing the purpose and subordinated primary tasks for the development of ICC of teachers in the system of military education according to the fundamental principles of information, competence-based, subject-activity, andragogic and contextual methodological approaches); contend-related (containing the content of the ICC of teachers; the requirements for its development talking into account the modern achievements in the psychological, pedagogical and methodological fields, information sphere; contributing to the consistency, continuity and persistence of development of the system of their informational and communicative knowledge); subject (containing the process of interaction between the teaching subject – the teacher(s) and the learning subject - the learner(s); methodological (containing the author's methodology for the development of ICC of teachers in the system of military education in the process of remote learning); diagnostic and resulting (containing criteria and indicators for diagnosing the development of teachers' ICC; its levels of development (low, medium, sufficient, high) [3].

T. Sayapina developed a pedagogical model for the formation of digital competence of future economists, which includes target, conceptual, content, methodological, technological, procedural, diagnostic, and effective blocks; substantiated the structure of digital competence of future economists based on the use of the digital intelligence standard, which includes eight components: digital identity, digital use, digital risks, digital security, digital emotional intelligence, digital communication, digital literacy, digital rights, and three levels: digital citizenship, digital creativity, and digital entrepreneurship [12].

I. Makarevich did the model of formation of information competence of future teachers of Geography. It combines educational and informational aspects of their professional development that includes such blocks: organizational and destination; content and procedural; and effective. Their components have a goal and set tasks for implementation; principles and methodological approaches; system of the top pedagogical conditions that optimize the improvement of the formation of information competence of future teachers of Geography; functions of information competence; a set of forms, methods, and technologies that make it possible implementation of the models and results.[5].

A model for the development of teachers' information and digital competence based on networking in postgraduate education was developed and implemented for students of advanced training courses by the Department of Educational and Information Technologies of the Sumy Regional Institute of Postgraduate Pedagogical Education by L. Petrova and O. Podlinaieva [9]. The researchers identified pedagogical conditions under which the formation of digital competence will be effective:

- the content of in-service training is formed taking into account modularity, variability, and focus on the professional activity of the teacher;
  - preparation and stimulation of teachers to networking;
- intercourse support of teachers in the field of ICT application in professional activity in the mode of intercourse interaction;
  - application of distance technologies in teacher training.

Thus, the analysis suggests that the problem of developing teachers' digital competence remains relevant and requires further research.

Research Results. The conducted research gives us the right to assert that the model of digital competence of a foreign language teacher should be built

- on the principles of digital competence development;
- directly on the introduction and application of digital technologies in the educational process;
  - on conducting competently developed diagnostics.

The model of this production is presented in Fig. 1.

The development of a foreign language teacher's digital competence is based on several principles that contribute to an effective and structured learning and development process. Here are some of these principles:

Purposefulness. The development of digital competence should be aimed at

achieving specific goals that are determined according to the needs of the teacher and the educational process. The goals may include improving the quality of learning, developing new teaching approaches, introducing innovative technologies, etc.

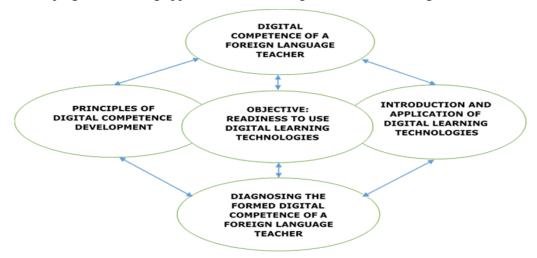


Fig. 1. Model for Digital Competence of a Foreign Language Teacher

The development of a foreign language teacher's digital competence is based on several principles that contribute to an effective and structured learning and development process. Here are some of these principles:

Purposefulness. The development of digital competence should be aimed at achieving specific goals that are determined according to the needs of the teacher and the educational process. The goals may include improving the quality of learning, developing new teaching approaches, introducing innovative technologies, etc.

Integration with the educational process. Digital competence development should be integrated into all aspects of the educational process. This means that teachers should use digital technologies and tools as part of their pedagogical practices, curricula, assessment, and communication with students.

Continuous learning and self-development. The development of digital competence is a process that requires continuous learning and self-improvement. Teachers should be prepared to learn new digital tools and technologies and to use them in their practice. It is important to encourage teachers to study and use new digital resources on their own.

Collaboration and exchange of experience. It is important to create a favourable environment for collaboration and exchange of experience between teachers. This may include the creation of groups to discuss digital practices, which is an important principle of developing the digital competence of foreign language teachers. These groups can be organized at the level of the higher education institution or as part of specialized projects and initiatives. They provide an opportunity to share experiences, ideas, best practices, and resources in the field of digital technologies in education. In these groups, teachers

can discuss their successes and challenges, develop joint projects, and collaborate on the implementation of new digital practices in the educational process.

Additionally, online platforms and social media can be used to create virtual communities where teachers can discuss digital practices, ask questions, share resources, and support each other in the process of developing digital competence.

It is important to provide opportunities for teachers to actively participate in such groups and to provide support, mentoring and resources for their development. Such a community will help teachers improve their digital skills, learn about new trends and innovations in digital education, and contribute to their professional growth.

It should be noted that the model can be expanded and changed. The main components of the model for developing a foreign language teacher's digital competence may include:

Development and implementation of specialized educational programmes and courses aimed at teaching teachers to use digital technologies in the educational process and in research. These programmes may include training in the use of computer programs, electronic resources, web tools, online communication, etc.

Organizing seminars, trainings, and workshops on digital competence for foreign language teachers. These can be offline events, webinars, or online courses. They will help employees learn new skills, update their knowledge, and share their experience with colleagues.

Establish a system of mentoring and partnership between academic staff with different levels of digital competence. Experienced academic staff can act as mentors and advisors to less experienced colleagues. They can share their knowledge, skills, and practical experience in using digital technologies in teaching and research. Such interactions facilitate the exchange of ideas, stimulate professional development, and contribute to the digital competence of academic staff.

Active participation in professional communities, scientific conferences, seminars, forums, and other events dedicated to digital education and technologies. This will allow teachers to get new ideas, interact with colleagues, discuss issues, and find common solutions.

Considering the individual needs and level of training of each teacher. Digital competence development should be tailored to the specific characteristics and needs of each employee. It is important to ensure the availability of various resources and support for self-study and self-development.

Establish mechanisms for assessing the level of digital competence of foreign language teachers and providing feedback. This includes digital competence diagnostics and evaluation of projects, portfolios, etc. These methods allow employees to demonstrate their skills and abilities in using digital technologies in practice.

Accordingly, it is important to provide clear assessment criteria and feedback to teachers so that they can understand their progress, identify weaknesses, and improve their digital skills.

At present, there are platforms that can be easily integrated into the education

process by the creation on their basis of interactive games, quests, and quizzes: Socrative, Kahoot, FlipQuiz, Genially, Canva, Worldwall, Quizezz, etc. These platforms, used as a service to create online quizzes, tests and surveys, is particularly popular in educational institutions. Students can answer questions created by the teacher using tablets, laptops, smartphones, that is, any devices that have access to the Internet. Tasks created on this platform allow including photos and videos. The time of performing the tasks is regulated by setting a time limit for each question. If necessary, the teacher can award bonus scores for correct answers and speed. All answers are displayed on the computer monitor. To participate in the quiz, students simply must open the service and enter the PIN provided by the teacher from his/her computer.

In recent years, IT companies in Ukraine are actively working to improve existing educational platforms and create new game-based educational programmes for use in an open information and education environment. Currently, the most popular in Ukraine are Classcraft, Minecraft: Education Edition, Power Point Quick Starter, Paint 3D, LinguaLeo, Lego Education, WeDo 2.0., SimCity, etc. These products have become an extremely useful modern tool for teachers.

**Conclusions.** Information and communication technologies are used by foreign language teachers at universities as an effective tool to enhance the learning process and promote active student participation. Some of the most common ICT tools used by foreign language teachers include.

Electronic textbooks and resources: collections of texts, videos, and audio materials that students can study independently or under the guidance of a teacher. E-textbooks with interactive tasks can also be used to help students learn the material more effectively. Teachers can use video and audio materials to increase students' understanding of the language, as well as to develop their pronunciation and listening skills.

- Interactive whiteboards and language learning platforms that enable teachers to create interactive activities, tests and other language learning resources that can be used in class or for homework.
- Virtual tours and games that can be useful for developing speaking and listening skills and increasing student motivation.
- Video conferencing and other communication tools that teachers can use to interact with students, conduct online classes and virtual meetings.

The developed digital competence of both teachers and students will allow them to effectively use the above tools remotely, but at the same time work on the material, discuss issues and receive feedback.

However, teachers may face difficulties in developing digital competence, namely, insufficient time allocated to master new ICT tools and appropriate methods of their use in the educational process; limited technical knowledge and skills, which may complicate the ability to understand and use new ICT tools; lack of confidence in using new technologies; lack of necessary resources, etc. Support from the administration of the educational institution is also important for the successful implementation of ICT technologies.

Teachers should therefore be prepared to face these challenges and seek ways to overcome them, for example by receiving appropriate training and support from IT professionals, administrators, and other professionals with digital skills. This may include consultancy, training, resources, and technical support to help teachers develop their information and digital competence. The use of digital technologies in teaching English showed its effectiveness and expediency, as students demonstrated not only a higher level of achievement, but also more active engagement and deeper motivation for learning the language.

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# IMPLEMENTATION OF METHODS FOR IMPLEMENTING PEDAGOGICAL CONDITIONS FOR FORMING SOCIO-CULTURAL COMPETENCE OF FUTURE FOREIGN LANGUAGE TEACHERS

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Annotation. The article is devoted to the problem of the formation of sociocultural competence of future foreign language teachers in the pedagogical college system. The article reveals the essence of the methodology for the implementation of pedagogical conditions for the formation of sociocultural competence of future foreign language teachers, which is implemented in three stages (stimulation-motivational - formation of motivation, adaptation of students to the conditions of the experiment; activity - implementation of pedagogical conditions in the classroom and outside the classroom for the effective formation of sociocultural competence; corrective-resultative – analysis and correction of results) and the veracity of the research hypothesis was verified according to the effectiveness of statistical and mathematical indicators.

In the aspect of our previous studies, it was revealed that in the structure of sociocultural competence of future foreign language teachers, information-cognitive, motivational-value, and practical-activity components are distinguished. The criteria for determining the level of formation of the information-cognitive component of the socio-cultural competence of future foreign language teachers are axiological, linguistic-cultural, and practical-communicative. The developed criteria and indicators made it possible to distinguish four conditional levels of formation of sociocultural competence of future foreign language teachers in the process of professional training in the conditions of a pedagogical college: high, sufficient, basic and elementary levels.

Research has proven a positive influence on the formation of sociocultural competence of students of the Pedagogical College of the disciplines of psychological and pedagogical and special training. Expanding the content of professional disciplines by adding texts, exercises, audio and video files of a socio-cultural orientation has a positive effect on the development of their socio-cultural competence as an individual's ability through adequate understanding and respect for other languages and cultures to manifest an active and responsible life in society.

**Keywords:** sociocultural competence, pedagogical college, future foreign language teachers, pedagogical conditions.

The article states that the socio-cultural competence of a future foreign language teacher is a complex, holistic, individual psychological, integrative formation that

combines socio-cultural knowledge, personal attitude to foreign cultures, allows successful communication with their representatives, feeling confident and comfortable in a foreign socio-cultural environment due to the possession of ways of using a foreign language; characterizes theoretical and practical readiness for socio-cultural activity and development of relevant qualities in students.

The problem of professional training of future teachers, theoretical and methodological foundations of their professional culture and professional competence formation are devoted to the research of Ukrainian (V. Andrushchenko, G. Ball, I. Bekh, H. Vasyanovych, L. Vovk, I. Ziasyuna, V. Kremen, N. Nychkalo, S. Maksymenko, etc.) and foreign (M. Ariyan, V. Bezpalko, V. Bibler, B. Gershunsky, I. Zimnya, N. Ishkhanyan, V. Slastenin, P. Adler, D. Brown, etc.) scholars. In the context of the study, the works of O. Akimova, O. Homoniuk, R. Gurevych, M. Kademia, A. Kolomiets, L. Lukianova, O. Matiash, V. Shakhova, O. Shcherbak and others concerning the professional training of future teachers are of particular importance [1 - 5].

There is a need to identify and specify the methodology for implementing the pedagogical conditions for the formation of future foreign language teachers' socio-cultural competence in the use of educational resources in the process of training future qualified specialists; to substantiate the peculiarities of its implementation in the system of vocational (vocational and technical) education institutions (VETIs) and to control its use. The above is the purpose of our study.

The purpose of the article is to introduce a methodology for implementing pedagogical conditions for the formation of future foreign language teachers' socio-cultural competence. The hypothesis of the study is to assume that the effectiveness of the formation of future foreign language teachers' sociocultural competence in the process of professional training in a pedagogical college will increase with the implementation of the following pedagogical conditions: the use of integrated sociocultural tasks with variable content in the process of learning a foreign language; emphasis on the sociocultural component in the process of teaching a foreign language in a pedagogical college; ensuring students' value orientation towards socio cultural activities in the process of integrated use of traditional and innovative teaching methods.

The research and experimental work was conducted at Vinnytsia Humanitarian and Pedagogical College, I. Y. Franko Korostyshiv Pedagogical College, Taras Shevchenko Uman Humanitarian and Pedagogical College, Bilhorod-Dnistrovskyi Pedagogical College, Chortkiv Oleksandr Barvinskyi Humanitarian and Pedagogical College, and Balta Pedagogical College. A total of 396 students took part in the experiment.

In terms of our previous research, it has been revealed that the structure of future foreign language teachers' socio-cultural competence includes information and cognitive, motivational and value, and practical and activity components. The criteria for determining the level of formation of the informational and cognitive component of future foreign language teachers' socio-cultural competence are axiological, linguistic and cultural, practical and communicative [2, 3, 4].

The indicators of the axiological criterion of future foreign language teachers'

socio-cultural competence are: motivation to master and use socio-cultural knowledge in pedagogical practice; need to develop socio-cultural competence; awareness of the importance of socio-cultural competence for future professional activity; tolerant and emotional attitude towards representatives of different ethnic groups, speakers of different languages and cultures [2, 4].

The indicators of the linguistic and cultural criterion of future foreign language teachers' socio-cultural competence are: socio-cultural knowledge, level of awareness of national and cultural peculiarities of Ukrainian and foreign language speakers; possession of knowledge about the peculiarities of effective communication in a multinational environment; readiness to use socio-cultural knowledge in professional pedagogical activity [1, 3].

The indicators of the practical and communicative criterion of future foreign language teachers' socio-cultural competence are: skills and abilities to use socio-cultural knowledge in specific socio-linguistic situations; skills of organizing socio-cultural activities with schoolchildren; experience of communication in a multicultural environment; reflection on the results of their own socio-cultural activities [1, 2].

The developed criteria and indicators made it possible to identify four conditional levels of future foreign language teachers' socio-cultural competence in the process of professional training in a pedagogical college: high, sufficient, basic and initial levels.

The study proved the positive impact of psychological, pedagogical and special training disciplines on the formation of socio-cultural competence of students of the pedagogical college. Expanding the content of professional disciplines by adding texts, exercises, audio and video files of socio-cultural orientation has a positive impact on the development of their socio-cultural competence as an individual's ability to show active and responsible life in society through adequate understanding and respect for other languages and cultures [1, 2].

The formation of future foreign language teachers' socio-cultural competence is defined as a complex, gradual, continuous process of active theoretical and practical activity of students aimed at acquiring socio-cultural knowledge, sustainable motivation for socio-cultural activity, the ability to successfully communicate with representatives of different cultures and feel confident and comfortable in a foreign language socio-cultural environment, on the basis of which the methodology for implementing pedagogical conditions for the formation of future foreign language teachers' socio-cultural competence is developed.

The pedagogical conditions for the formation of future foreign language teachers' socio-cultural competence are as follows: the use of integrated socio-cultural tasks with variable content in foreign language learning; improving the content of the discipline "Foreign Language" by introducing topics on national and cultural characteristics and specifics of national communicative behavior of foreign language speakers; ensuring students' value orientation towards socio-cultural activities in the process of integrated use of traditional and innovative methods.

Substantiated pedagogical conditions are the basis of the structural and functional

model of future foreign language teachers' socio-cultural competence formation (Fig. 1), which consists of the following blocks: target (goal and objectives of future foreign language teachers' socio-cultural competence formation); conceptual (methodological approaches; pedagogical conditions); procedural (stages of future foreign language teachers' socio-cultural competence formation); effective (expected result) [1, 2].

The criteria for determining the level of formation of the information and cognitive component of future foreign language teachers' socio-cultural competence are axiological, linguistic and cultural, practical and communicative [3].

The experimental verification of the effectiveness of the methodology for implementing the substantiated pedagogical conditions and the developed structural and functional model of the formation of future foreign language teachers' socio-cultural competence took place at Vinnytsia Humanitarian and Pedagogical College. The experimental and control groups of students with approximately the same composition and initial level of sociocultural competence were selected for the experiment. A total of 396 students took part in the formative experiment (197 in the experimental and 199 in the control groups).

The results of the ascertaining experiment showed an insufficient level of sociocultural competence among pedagogical college students. The college teachers explained the basic and initial level of students' sociocultural competence by the lack of focus of the educational process of pedagogical colleges on the formation of future foreign language teachers' sociocultural competence.

The methodology of implementing pedagogical conditions for the formation of future foreign language teachers' socio-cultural competence is implemented in three stages (stimulation and motivation - formation of motivation, adaptation of students to the conditions of the experiment; activity - implementation of pedagogical conditions in classroom and extracurricular work for the effective formation of socio-cultural competence; correctional and resultant - analysis and correction of results) [2].

The following methods were used to solve the tasks of these stages of the methodology for implementing the pedagogical conditions for the formation of future foreign language teachers' socio-cultural competence: exercises; creative tasks; writing reflective essays; games: business, story, situational and role-playing; interactive methods: "microphone", "carousel", "aquarium", "brainstorming"; case studies; project method, etc. The phased implementation of pedagogical conditions for the formation of future foreign language teachers' socio-cultural competence (stimulation and motivation, activity and operational, correctional and resultant) involved updating and deepening basic country studies, linguistic and socio-cultural knowledge and skills based on the implementation of intra-subject and inter-subject connections [1, 2].

During the formative stage of the pedagogical experiment, the author and teachers of pedagogical colleges working according to the methodology proposed by the author selected authentic texts and tasks for foreign language classes, excerpts from works of literature of the country whose language is being studied, sample dialogues, speech patterns and formulas, educational and communicative situations for organizing

interactive interaction, etc. The use of modern journalistic materials to develop future English teachers' socio-cultural competence in the college setting is due to the fact that the above means constitute a fragment of national culture, which contains information about the political, economic, socio-cultural processes of modern English-speaking society and reflects the specifics of the worldview, worldview of native speakers of other cultures [1, 2]. The positive impact of the implemented methods in the work with students of the experimental group has been noted, which contributed to the improvement of their socio-cultural competence.

The dynamics of the formation of future foreign language teachers' socio-cultural competence before and after the experiment is shown in Figure 2.

The data obtained as a result of the study indicate an increase in the levels of sociocultural competence of students of the experimental group. Comparison of the indicators of the control and experimental groups gives grounds to consider the implementation of the methodology for the implementation of pedagogical conditions and the structural and functional model of the formation of socio-cultural competence for students of pedagogical colleges effective and appropriate. The use of the nonparametric Pearson's agreement criterion ( $\chi 2$ ) showed the statistical reliability of these changes ( $\alpha$ =0.05).

The results of the study confirmed the effectiveness of the proposed methodology for implementing the pedagogical conditions for the formation of future foreign language teachers' socio-cultural competence.

As a result of the introduction of the experimental methodology for implementing pedagogical conditions for the formation of future foreign language teachers' socio-cultural competence into the educational process of pedagogical colleges, positive changes in the indicators of future foreign language teachers' socio-cultural competence of the experimental group were traced.

As can be seen from Figure 2, if before the experiment there were 40.4% of students in the EG with the initial level of socio-cultural competence, then after the experiment, 12.28% were recorded in the EG; in the CG there were 41.4%, and it became 40.22%; with a basic level in the EG there were 41.5% of students, in the CG - 40.2%, and in the EG 49.71% of students, and in the CG - 40.78%; with a sufficient level in the EG there were 11.1%, in the CG - 11.7%, and in the EG 21.05%, and in the CG - 12.29%; with a high level in the EG was 7%, in the CG - 6.7%, and after the experiment with a high level in the EG was 16.96%, in the CG - 6.7%.

The results of the control group indicate that the traditional system of professional training of future foreign language teachers in pedagogical colleges contributes less to the development of students' sociocultural competence than the experimental methodology we have implemented, which aims to implement a set of specific pedagogical conditions for the formation of future foreign language teachers' sociocultural competence.

To confirm the results shown in Figure 1, which indicate that the proposed methodology has become a significant factor in influencing the level of students' sociocultural competence in the experimental group, we will use Pearson's 2 agreement criterion.

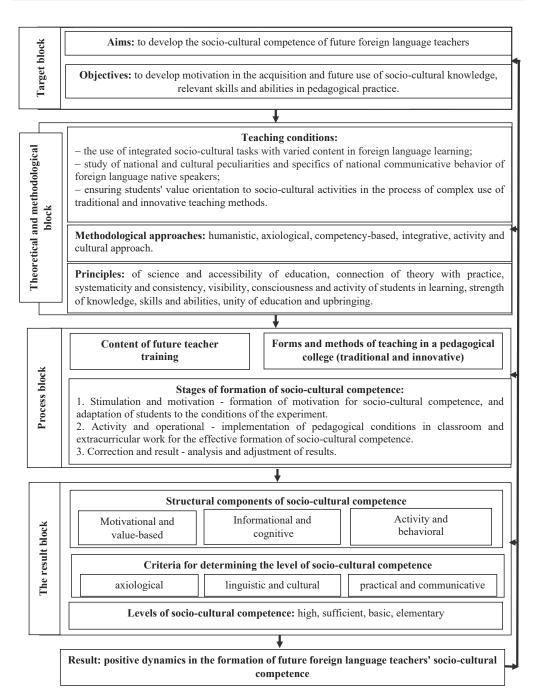


Fig. 1 Structural and Functional Model of Formation of Socio-Cultural Competence of Future Foreign Language Teachers.

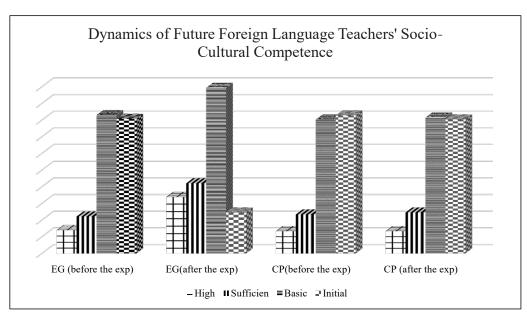


Fig. 2. Dynamics of future foreign language teachers' sociocultural competence

It is necessary to test the hypothesis that the levels of manifestation of the sociocultural competence of students of the experimental group before and after the experiment differ sufficiently to speak of the effectiveness of the methodology used.

The results of calculations according to the criterion of consent 2 for EG and CG (after the experiment):

$$\chi^2 = \frac{(6,7-16,96)^2}{16,96} + \frac{(12,29-21,05)^2}{21,05} + \frac{(40,78-49,71)^2}{49,71} + \frac{(40,22-12,28)^2}{12,28} = 6,95+3,64+1,6+63,57=75,76$$

Since the empirical value of the agreement criterion 2 (75.76) is in the zone of significance and significantly exceeds the critical value of the criterion with a confidence level of  $P \le 0.001$ , we can unequivocally state the validity of the hypothesis that the proposed pedagogical conditions and methods of implementing the pedagogical conditions for the formation of future foreign language teachers' socio-cultural competence are a significant factor influencing the formation of students' socio-cultural competence in the experimental group.

Thus, the results (75,76) of the study confirmed the statistical significance of the difference in the results of the socio-cultural competence diagnosis between the experimental and control groups. Since the empirical value of the criterion is greater than the critical value, the hypothesis is not rejected at the 0.05 significance level. Therefore, it can be argued that the differences in the levels of sociocultural competence of EG and CG students are reliable.

Statistical processing of the CG results before and after the experiment was

also carried out.

The results of calculations according to the criterion of consent 2 for CG (before and after the experiment):

$$\chi^2 = \frac{(6,7-6,7)^2}{6,7} + \frac{(12,29-11,7)^2}{11,7} + \frac{(40,78-40,2)^2}{40,2} + \frac{(40,22-41,4)^2}{41,4} = 0 + 0,03 + 0,01 + 0,03 = 0,07$$

The results (0.07) obtained as a result of the calculations did not confirm the statistically significant difference in the differences obtained in the levels of socio-cultural competence of students in the control group.

Comparison of the EG results before and after the experiment by calculating the criterion of agreement 2 was also carried out.

The results of calculations by the consent criterion 2 for the EG:

$$\chi^2 = \frac{(16,96-7)^2}{7} + \frac{(21,05-11,1)^2}{11,1} + \frac{(49,71-41,5)^2}{41,5} + \frac{(12,28-40,4)^{24}}{40,4} = 14,17+8,92+1,62+19,57=44,28$$

The statistical processing of the results (44.28) confirmed the statistical significance of the difference in the results of the experimental group (before and after the experiment).

As we can see, the tested structural and functional model of forming the socio-cultural competence of students of pedagogical colleges - future foreign language teachers has shown its effectiveness and efficiency. The statistical processing of the research results presented above testifies to this.

The results of the experimental study have proved that the developed structural and functional model of socio-cultural competence formation, based on the pedagogical conditions identified and substantiated by us, the methodology of their implementation, and the special seminar «Socio-cultural competence of future foreign language teachers» on the development of socio-cultural competence of future foreign language teachers is effective [1, 2].

The results of our study and analysis of the works of scholars (L. Lipshits, T. Kolodko, L. Topchii, etc.) show that for the effective formation of future foreign language teachers' socio-cultural competence it is necessary to emphasise the socio-cultural component in the process of teaching a foreign language in a pedagogical college. The main task is to identify the links between the language and the culture of the people who speak the language. In the context of traditional explanatory and illustrative teaching, it is difficult for students of pedagogical colleges to establish such connections. To make this process more effective, teachers should specifically focus on socio-cultural aspects in existing texts or add specially prepared socio-cultural material to their classes. That is why we believe that one of the conditions for the formation of future foreign language teachers' socio-cultural competence is the study of national cultural peculiarities and specifics of national communicative behaviour of foreign language speakers in a pedagogical college [2, 3].

Conclusions. Thus, it has been proved that the implementation of the structural and functional model of future foreign language teachers' socio-cultural competence formation is to some extent related to the complex combination of traditional and interactive teaching methods, students' performance of individual integrated tasks of

professional socio-cultural orientation, solving professional situations of socio-cultural orientation contribute to the formation of students' socio-cultural competence in a pedagogical college. Comparison of the data of the formative and the confirmatory stages of the experiment shows an increase in the level of formation of all indicators of future foreign language teachers' socio-cultural competence (experimental group).

Observations and expert assessments indicate that the use of integrated sociocultural tasks with variable content in the process of experimental work in foreign language learning; studying national and cultural peculiarities and specifics of national communicative behaviour of foreign language speakers; ensuring students' value orientation towards socio-cultural activities in the process of integrated use of traditional and innovative teaching methods - all this contributed to the formation of future foreign language teachers' positive perception and tolerant attitude to the values inherent in a foreign language culture; perception of universal human values as professionally significant; enrichment of knowledge about the historical and country-specific features of a foreign language culture, lifestyle of native speakers, norms, traditions; development of the ability to interact in intercultural communication, to show tolerance, and the ability to communicate effectively with representatives of other cultures.

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# KEY COMPETENCIES OF HIGHER EDUCATION TEACHERS IN BILINGUAL EDUCATION CONTEXT

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Annotation. This article presents the findings of a study aimed at systematically identifying and specifying the essential competencies required by instructors in higher education institutions to carry out their roles in interdisciplinary bilingual education effectively.

**Keywords:** Bilingual education, socio-pedagogical competence, autopsychological competence, professional competence.

Introduction. Educational objectives have evolved significantly in today's rapidly globalizing world and amidst the transformative changes in Ukrainian society. These evolving objectives necessitate continuously auguring knowledge, skills, and capabilities among future specialists. This includes the development of professional foreign language communicative competence and the introduction of bilingual-based interdisciplinary integrative education. Consequently, the demands on teachers have also escalated. In professional education, teachers are not just transmitters of knowledge; they play a pivotal role in shaping future professionals' skill sets and abilities. Furthermore, they serve as role models, instilling a passion for their subjects and cultivating a value-driven and motivationally enriched perception of knowledge among their students.

One pressing concern is the imperative to construct a competency model for teachers engaged in collaborative professional endeavors actively participating in the bilingual education paradigm. This issue is of paramount importance and warrants special attention. Thus far, there needs to be more clearly defined criteria delineating the professionalism of such educators. Specifically, there need to be more systematic guidelines outlining the requisite level of proficiency in professional skills and abilities for foreign language instructors within non-linguistic universities operating within the framework of interdisciplinary cooperation, implementing bilingual-based interdisciplinary integration.

The urgency to establish a solid theoretical and methodological foundation, particularly concerning the expectations for educators' personal and professional conduct, underscores the relevance of the research presented herein.

Literature Review. It is essential to acknowledge that foreign scholarly literature has devoted significant attention to the characteristics of educators engaged in interdisciplinary, integrative education, mainly focusing on their personal and professional attributes. Notably, it has been emphasized that foreign language instructors must possess linguistic proficiency and professional competence in their respective

academic disciplines (Pavón & Ellison, 2013, p. 65). The methodologies for fostering collaboration among foreign language and professional subject instructors, such as cooperation, collaboration, and team teaching, have been extensively discussed in works by T. Hutchinson, A. Waters, and T. Dudley-Evans (Hutchinson, 1987; Dudley-Evans & St. John, 2010).

Within the realm of interdepartmental cooperation, the concept of team teaching, introduced by Davis, deserves special consideration. According to Davis (1997), complex interdisciplinary courses created and taught by a team of instructors are ideal for students' and educators' professional and personal development. Another pedagogical approach, Content Language Integrated Learning (CLIL), which involves simultaneously studying a professional discipline and a foreign language, has gained widespread popularity worldwide (Marsh, 2012).

In the domestic literature, there remains a limited number of scholarly works directly addressing the professional and personal qualities of educators engaged in integrative education. For instance, Sinyatkivska S.M. (2019) developed a model for the bilingual professional training of future specialists in the social sphere, delving into the professional attributes of the teacher's personality. Recent publications have outlined the competencies that educators should possess when designing a bilingual career-oriented curriculum. Considering the significance of interdisciplinary, integrative education in a bilingual context, the Department of Foreign Languages at Kyiv Linguistic University developed a pedagogical concept for integrative education within the context of interdepartmental cooperation in 2023. This concept highlights the advantages of professional collaboration and outlines the roles and functions of subject matter instructors and the Department of Foreign Languages (Khomenko et al., 2023).

Consequently, the contours of the personal and professional components required for a future competency model for educators working in bilingual education settings are emerging. Nevertheless, comprehensive and systematic studies addressing this issue still need to be completed.

The purpose of the article. The effectiveness of simultaneously mastering a profession through a foreign language and mastering a foreign language through a profession significantly hinges on the personal and professional attributes of both subject matter instructors and foreign language educators. Their ability to adeptly orchestrate the educational process is pivotal in this equation. Consequently, we assert the pressing need to develop and systematize criteria encompassing both professional and personal dimensions to prepare future specialists for careers in integrative bilingual education within the framework of interdepartmental collaboration.

The primary purpose of this article is to outline a comprehensive catalog of competencies, including personal-professional, social, psychological-pedagogical, and professional competencies. These competencies are indispensable for higher education instructors in fulfilling their responsibilities, encompassing interdisciplinary integration in a bilingual context and cultivating professional foreign language communicative competence among future specialists.

Results and discussion. In the context of our research, we define bilingual education

as an educational approach centered around the interdisciplinary integration of professional disciplines and a foreign language. This approach is designed to foster the development of foreign language professional communicative competence, which forms an integral component of professional competence. It is crafted with due consideration to the interests and needs of students, which are determined by the specific requirements of their future professions. This approach emphasizes collaborative, student-teacher interaction, and subject-subject cooperation (Khomenko, 2023, p. 250). The success of bilingual education hinges primarily on educators' moral and professional authority. To fulfill this role effectively, they must possess specific competencies.

To define and categorize the competencies relevant to bilingual education, we analyzed research and publications from reputable domestic and international sources. Our study delved into various facets, including but not limited to:

The cultivation of a teacher's creative individuality and the pedagogy of individuality (Zabolotska, Otych).

The development of foreign language professional competence among students majoring in non-language disciplines (Mykytenko, Nikolayeva, Secret).

The fostering of intercultural communication skills (Hryshkova, Demydenko, Chekun).

The exploration of theories related to interdisciplinary integration as a means of enhancing the effectiveness of higher education in Ukraine (Avsyukevich, Grishkova, Drab, Lychko, Mykytenko, Secret, Ponomarenko, Tarnopolskyi).

Integrating foreign language instruction with specialized and psychological-pedagogical training (Gapon, Dancheva, Maksymchuk, Poyasok).

The examination of bilingualism-related challenges (Mykytenko, Kolyadenko, Sytnyakivska, Seiko).

The multifaceted nature of professional competence as a concept (Kolodko, Maslyuk, Ovcharuk, Romashina, Rudenko).

The significance of competence in the context of modern society (Hutmacher, Mansfield, Spencer-Oatey, Sternberg).

Competency in foreign language learning (Canal).

The development of intercultural competence (Brown, Byram, Lustig, Koester, Rathje, Rey).

Special attention was directed towards examining documents from the Council of Europe, which delineate fundamental competencies that hold particular significance in training future specialists in a bilingual environment (Eurydice, 2002; DG EAC, 2003; OECD, 2002; OECD, 2018). These documents highlight a range of competencies, including social competencies related to the ability to take collective responsibility and make decisions collectively. Additionally, they emphasize competencies essential for proficient foreign language communication, particularly pertinent in professional engagement within a multicultural and globalized society. These competencies also extend to abilities associated with navigating the information society and the inclination and aptitude for lifelong learning, both within a professional context and on a personal level.

The analytical work, encompassing the literature above and other specialized sources about competence development among foreign language and subject matter instructors, enabled the identification of competencies uniquely relevant to the dynamics of bilingual education. These competencies are precisely aligned with the organizational structure of bilingual education and the distinctive educational objectives set for future specialists.

Within the scope of this article, we will provide a concise overview of these competencies. To begin, interdisciplinary integrative education in a bilingual setting is inherently grounded in collaborative efforts and the cooperation of professional subject instructors and foreign language educators. In this setting, classes may be conducted in two languages, necessitating the capacity to listen to and understand one another, collaborate in decision-making, share responsibilities, and exchange teaching methodologies and learning strategies. This requires proficiency in collaborative professional engagement within the social sphere. Effective teamwork requires a mutual understanding among team members, consistent communication, and cooperation among individuals with diverse personal characteristics and cognitive perspectives—factors closely associated with social competence. Teachers working in teams confront the challenge of constructively addressing professional and personal issues, calling for a harmonious blend of psychological factors.

Furthermore, effective teamwork entails the willingness and ability of teachers to adapt personal qualities and behavior and the capacity to create positive dynamics by altering their internal states, demonstrating the ability to adapt to unforeseen circumstances, and more. This capacity to continually engage in deliberate self-transformation is encapsulated within the term "auto-competence," as recognized in modern psychology. It is essential to highlight that auto-competence encompasses acquiring new knowledge, self-regulation, and an unwavering commitment to achieving significant outcomes. Given the interconnection between the psychological aspects of personal adaptation to novel social environments (in this case, the adaptation of teachers from various disciplines working collaboratively), we underscore the pivotal importance of social-psychological and autopsychological competencies in the teacher's profile.

Teachers responsible for implementing interdisciplinary integrative education in a bilingual context, encompassing both professional disciplines and a foreign language, must comprehensively understand the professional landscape and its demands. They are expected to collaboratively establish the ultimate course goals and objectives, along with practical strategies for achieving them. This entails crafting a repertoire of communicative assignments with a distinct professional focus, creating specialized educational materials and textbooks, and devising unique assessment methods that align with the course's goals while remaining consistent with the evaluation criteria established in relevant specialized methodologies. These responsibilities demand a high level of professional competence.

We define professional competence as a holistic capacity amalgamating professional expertise and pedagogical competence. It encompasses a profound knowledge of the professional subject and the ability to apply it in practical settings effectively. In the context of bilingual education, pedagogical competence can be further subdivided into:

- a) Didactic competence. This fusion of general educational, psychological-pedagogical, and social knowledge, together with specialized professional-pedagogical skills, involves the creation of innovative teaching methodologies, mastering problem-solving tools (mainly methodological ones), and constructing logical educational processes. It also encompasses the design of non-standard and spontaneous educational scenarios within an intercultural professional milieu, nurturing the capacity to make informed decisions and promote effective behavior in challenging or competitive environments, among other skills.
- b) *Personal competence*. This entails possessing a high level of general knowledge, a proclivity for innovative thinking, the ability to generate original ideas, and a willingness to engage in self-assessment to identify and rectify deficiencies in one's teaching approach. It also encompasses a readiness for professional growth, a strong motivation for one's profession, and a commitment to creative pedagogical practices, among other qualities.
- c) Professional foreign language communicative competence, as an integral component of professional competence: This multifaceted and integrated formation reflects the acquired ability of future specialists to apply their professional knowledge through a foreign language, encompassing vocabulary, grammar, and pronunciation. It also contains effective foreign language communication skills, per the Common European Framework of Reference for Languages (CEFR), while incorporating developed professional and personal attributes. These attributes include overcoming psychological barriers during foreign language communication, tolerance, effective communicativeness, mastery of speech etiquette, and a wealth of experience in foreign language professional communication. This comprehensive competence empowers individuals to creatively tackle professional challenges within an intercultural professional sphere (Khomenko, 2014, pp. 209-210).

For future specialists, learning a foreign language takes on a pragmatic significance inseparable from mastering their respective professions, and it adapts in response to the evolving professional context. This professional context, in turn, undergoes transformations influenced by economic conditions, labor market dynamics, social changes, and other factors. These shifts affect the specific demands placed on future specialists, leading to adjustments in their professional foreign language communicative competence.

It is worth noting that professional foreign language communicative competence development occurs within the broader framework of *intercultural competence*, which also encompasses *professional intercultural competence*. Challenges often arise at these levels due to insufficient knowledge of the socio-cultural background or its absence. Therefore, we consider intercultural and industrial intercultural competence integral *to professional foreign language communicative competence*. These competencies necessitate teachers to understand professional culture and appropriate behavior and possess sociolinguistic, linguistic, and regional knowledge. This also includes familiarity with the national and cultural characteristics of the countries whose language is being studied. This holistic approach encompasses mastery of foreign language business

communication, business rhetoric, and the cultural preparation of future specialists. It involves reducing ethnocentrism, fostering tolerance for cultural differences, and more. In essence, future specialists must possess a comprehensive and integrated capability to engage effectively in a foreign-language professional subculture, considering its culturally specific values and behavioral norms.

Hence, the proposed structure of pedagogical competence, consisting of interconnected and mutually reinforcing components such as didactic, personal, professional foreign language communicative, intercultural, and cross-cultural professional competencies, aligns well with the specific demands of teachers of specialized disciplines and foreign language working collaboratively.

In bilingual education, linguistic and professional training of future specialists cooccur with equal emphasis. This means that teachers of foreign languages essentially grasp the fundamentals of specialized disciplines. This understanding allows them to tailor the educational process in alignment with the real professional context of foreign language communication and the actual needs of students. Consequently, they can establish clear educational objectives and more. Teachers of specialized disciplines, on the other hand, gain an opportunity to enhance their foreign language proficiency. They use it as a tool to acquaint themselves with specialized publications in foreign scientific sources and consistently augment their professional knowledge.

This dual emphasis gives rise to another facet of teachers' professional competence: *interdisciplinary competence*. Proficiency in this competence empowers educators to collaboratively create a personalized learning environment that fosters students' personal and professional development through research, design, and communication activities. This approach bolsters the study and practical aspects of specialist training and enhances the work of academic and pedagogical staff. Additionally, both teachers and students, as equal participants in the educational process, gain the capacity to monitor innovations in relevant fields of science and promptly integrate them into integrated programs. This adaptability extends to responding to innovative changes in the professional landscape, encompassing economics, management, and foreign language teaching methods.

The formation of professional competence is profoundly influenced by the characteristics of the information society in which we currently reside. In this context, the role of the teacher as the sole source of knowledge for students has evolved significantly. Today, the primary competitors to contemporary educators include the internet, AI chatbots (such as Chat GPT), and other technologies. Consequently, teachers and students interact within an information-rich environment with its technologies, tools, and language.

Information technology competency is pivotal in enhancing a teacher's ability to effectively harness modern communication technologies for interpersonal interactions and the organization of educational processes. It involves the acquisition of theoretical knowledge and practical skills in the realm of innovative technologies. This proficiency equips educators with the capacity to adapt to new literacies essential for navigating the information age.

It is important to emphasize that competencies are not static attributes of an

individual; they are dynamic and ever evolving. They require continuous development and adaptation, integration with other competencies, and alignment with the education system's evolving needs and societal expectations. Additionally, the practice of bilingual education will inevitably unveil the demand for new competencies that will complement the list presented in this article. These emerging competencies will be shaped by the evolving landscape of bilingual education, including changes in value orientations and the demands of contemporary society.

Conclusions. Synthesizing the points above, we underscore that bilingual education, characterized by the simultaneous and equal emphasis on linguistic and professional training for future specialists (learning a profession through language and languages through a profession), necessitates specific competencies in teachers of specialized disciplines and foreign languages. These competencies have been identified and systematically organized in this article, drawing upon the research of both Ukrainian and international scholars, as well as the experiences and insights gleaned from the Department of Foreign Languages at Kyiv Linguistic University.

We delineate the following key competency categories:

- a) Socio-psychological and autopsychological competence.
- b) Professional competence, which encompasses professional/professional subject knowledge and pedagogical proficiency.
- c) Pedagogical competence, tailored to the unique demands of bilingual education, is further subdivided into the following dimensions:
  - Didactic competence.
  - Personal competence.
  - Professional foreign language communicative competence serving as an integral component of professional competence.
  - Intercultural and professional intercultural competence.
  - Interdisciplinary and interdisciplinary competence.
  - Information technology competence.

Our research's novelty and theoretical significance lie in the precise specification and systematic arrangement of teacher competencies in the nascent field of bilingual education in higher education institutions in Ukraine.

Future research prospects involve the development of theoretical and methodological foundations for such training, as well as the creation of a comprehensive system for interdisciplinary integrative education within a bilingual framework.

The outcomes of this research can prove invaluable for educators in designing specialized courses, developing methodological and didactic materials, crafting educational and methodological complexes, and formulating integrated curricula. This, in turn, will enhance the quality and effectiveness of their teaching efforts, fostering the cultivation of key competencies, self-development, and self-improvement. For students, familiarity with the research findings will contribute to a holistic understanding of their future professional roles, motivating them to diligently develop the requisite skills and qualities needed for their careers while boosting their motivation to excel in foreign language study. Thus, the practical utility of our work is evident.

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# ORGANIZATION OF DISTANCE LEARNING OF MATHEMATICS IN INSTITUTIONS OF SECONDARY AND HIGHER EDUCATION

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Annotation. The article discusses two ways of organizing distance learning - synchronous and asynchronous modes. The differences of the model curricula in the school education system "New Ukrainian School" (NUS) from the existing curricula are described. Some distance learning technologies are described, namely: cloud technologies, STEAM education, Case method, Crossense, Game technologies, or gamification, Health-saving technologies, Project method, storytelling and tools used by teachers during distance learning. The following services are provided for the organization of online learning: Gios, My class, EDERA, "Mathematics is simple" course. Changes in the organization of the process of teaching mathematics are described, which take place in accordance with the concept of the "New Ukrainian School" (NUS).

The methods, organizational forms and teaching tools used in higher education institutions when combining distance learning with face-to-face learning are described. The specific features of the educational process during distance learning in institutions of higher education are described. Various forms and measures are proposed for the organization of the educational process in order to maintain the appropriate level of knowledge acquisition and the formation of relevant skills in geometry during distance learning of future mathematics teachers.

**Keywords:** distance learning, methods of distance learning organization, distance learning technologies, learning methods, organizational forms of learning, learning tools, education, mathematics, geometry.

**Problem statement.** Laws of Ukraine «On education» and «On full general secondary education» [5] provide the opportunity for schoolchildren and students of higher educational institutions to receive educational services in the distance form of education. This follows from the right to education provided for by Art. 53 of the Constitution of Ukraine.

Depending on the conditions that have developed in Ukraine since 2020, education

in schools and universities will be conducted either in a mixed form of education or completely remotely. First, the country was forced to introduce a quarantine, and then from February 2022, martial law was introduced in the country.

**Analysis of recent research and publications.** The concept of distance learning in scientific and methodical literature is interpreted in different ways.

V. Bykov means distance learning as «a form, a system, according to which the interaction between the teacher and the student, students is carried out at a distance, and reflects all the components inherent in the educational process (goals, content, methods, organizational forms, means of learning), implemented by specific means of Internet technologies, or other means that involve interactivity» [2, p. 14].

Another scientist describes distance learning as «a new level of correspondence education, which provides the use of information technologies based on the use of personal computers, video and audio technology, satellite and optical fiber technology» [3].

**Presenting main material.** In general, if we analyze a large number of definitions of the concept of distance learning, we can conclude that it really differs from traditional learning, to which teachers and students are accustomed.

There are two ways of organizing distance learning - synchronous and asynchronous modes.

Synchronous mode is such an interaction between a teacher (teacher) and a student (student), when all of them are simultaneously in the web environment of distance learning. It can be a video conference, audio conference, chat, social networks, etc. i.e., classes are purely online.

Asynchronous mode involves participation in communication between students and teachers with a certain delay in time (e-mail, interactive educational platforms, social networks, forum). But distance learning involves both online learning and offline learning, that is, to be mixed.

From the 2021-2022 academic year, the reform of the school education system «New Ukrainian School» began to be implemented in secondary education (gymnasium).

In Ukraine, since 2021, various author teams have been working on the development of new model curricula specifically for basic secondary schools.

Model educational programs of the New Ukrainian School (NUS) differ from existing educational programs in that they do not determine the number of hours and the order in which the sequence of studying the topic occurs, and do not determine the toolkit for the teacher that he needs. The model program needs to be approved by the state, but it must determine the content of the subject and various types of student activities.

On the basis of the Model Educational Program, seven model programs for 5-6 grades of NUS were created and approved by Order of the Ministry of Education, Culture, Sports, Science and Technology of February 19, 2021 No. 235 «On Approval of the Model Educational Program for Grades 5-9 of General Secondary Education Institutions». From 2021, the 5th and 6th grades of Ukrainian schools began to work according to the new model programs of the New Ukrainian school (NUS). In

accordance with the current model curricula, new textbooks in mathematics for grades 5-6 of different authors' collectives were created, first in electronic form, and then paper samples of the textbooks were printed. Textbooks have been supplemented with additional electronic resources, such as workbooks, online materials and video lessons, which make the learning process more interesting and productive.

Mathematics textbooks by different authors for grades 5-6 differ from each other in terms of content, there are more problems with modern content, problems about Ukraine and the world, problems for financial calculations, about health preservation, environmental problems for traffic and its safety, applied and practical problems. Modern textbooks of NUS in mathematics, contains QR codes, digital tools for some topics can be downloaded from the link. Most textbooks are very convenient for students to use during distance learning.

The new Ukrainian school involves the use of new learning technologies, i.e. organized learning methods and processes that ensure quality learning results. Distance learning technologies are one of these technologies:

- 1. Cloud technologies are the possibility of using computing resources and memory of remote servers (Gmail, Meta). The first to use the term «cloud computing» in the science of commercial products was the Amazon company, so in 2006 the Elastic Compute Cloud service was launched. At school, these are online services for educational communication, a library, file storage, electronic journals, diaries, creating presentations, tables, drawings, etc. In mathematics lessons, it is successfully used during the so-called «inverted learning». For example, the study of the topic «Pyramid» in grade 11 takes place online, and solving problems and checking homework is done in a real classroom. It can be video conferences, preparation for the thematic control work.
- 2. STEAM education includes science, technology, engineering, art and mathematics. During STEAM lessons, the focus is not on the teacher, but on the practical task to be solved. For example, one of the interesting tasks is the students' construction of an automated greenhouse. Various disciplines are involved: mathematics, physics, computer science, biology, labor training.
- 3. The case method is a learning technique that uses a description of real economic, social, and business situations. This method has been known since ancient times. The analysis of «cases» was one of the favorite methods of Socrates' time. Even in ancient Sparta, the discussion of situations that arose on the battlefield became widespread. As a method, it took shape 100 years ago at Harvard University. The concept of the case method is now used in today's leading schools and universities. In class, students not only take part in the learning process, but also see the practical application of the learned new material.

Formulas of simple and complex percentages are studied by students in the algebra course.

In fiction, there are stories related to the calculation of simple and compound interest. In O. Balzac's short story «Hobsec», one of the heroes, Mr. Derville, borrowed 150,000 francs from Hobsec for 10 years at 15% per annum. Pupils are given the task of

calculating the amount that Dervil returned to Hobsek after 10 years.

Joint teamwork emotionally improves the level of knowledge and increases motivation. Students learn to apply mathematics to the realities of the world around them.

The task can be divided into two stages:

The first stage. Consider simple and compound interest formulas at home.

The second stage. Class work using the compound interest formula.

- 4. Crossense (from the English word «cross») is a visual associative chain consisting of 9 images, each of which is connected to the previous and next image (analogous to crosswords). For example, the «On the Lesson» and «Vseosvit» platforms contain various examples of cross-senses for the 5th grade on various topics (angles, percentages), which are interestingly used during distance learning at school.
- 5. Game technologies, or gamification. The Classtime platform contains a large number of team games that can be used both in class and given as homework. For example, in the 6th grade, students study the topic «Coordinate plane». At the stage of consolidating new material, it will be appropriate to offer the game «Sea Battle» to students.
- 6. Health-saving technologies tasks for a healthy lifestyle, which are aimed at strengthening the physical, mental, emotional, moral and social health of students. Example:

Problem 1. The norm of salt consumption for a person is 6 grams per day. The salt content in boiled sausage is 2-4%. How many grams of cooked sausage should be eaten in order not to exceed the existing salt norm?

Problem 2. How many hours does a person shorten his life if he smokes 20 cigarettes every day? (One cigarette shortens a person's life by 14 minutes).

The conditions of the tasks are accompanied by interesting presentations that help to better visually understand the conditions of the tasks.

7. The project method is an educational technology aimed at the acquisition of knowledge by students in close connection with real life practice, the formation of specific abilities and skills in them thanks to the systematic organization of problem-oriented educational research.

Students in groups or individually receive a task - create a new product, solve a problem. In the implementation of the project, students are helped by existing pedagogical software tools and the Internet.

When studying the topic «Vectors and coordinates on the plane», prepare a presentation using the PS PowerPoint program on the topic «Vectors in science and technology», as well as «Rene Descartes». Pupils consider the use of vectors in physics, technology, illustrate interesting historical material about the founder of the Cartesian coordinate system, the scientist René Descartes.

Each slide of the presentation contains video information, graphic information, and animation that visually illustrate the research project. The demonstration method may contain a linear or branched structure.

The linear structure contains only message theses. It is, as a rule, used in sequential teaching of new material. In years of generalization and systematization of knowledge, a branched structure is used.

The most popular tools used by teachers during distance learning are Google Classroom—for the work of the teacher and the class, Google Sheets—tables for journaling, Google Forms—for communication with students, Gmail—for communication with students, electronic educational resources and services: Zoom—for conducting online classes, creating polls on the Vseosvita and Na urok platforms.

When conducting lessons, software tools should be used. For example, in geometry lessons, such programs help to build geometric models of objects and change their parameters. These are the so-called dynamic geometry packages. Some of these programs are GRAN 1, GRAN 2D, GRAN 3D, DG. They enable students to create images of planimetric or stereometric figures, or combinations of these figures, to transform them on the coordinate plane or in space.

The GRAN software tool was created by the Mykhailo Dragomanov State University of Ukraine team under the leadership of Professor M. I. Zholdak. GRAN 1 enables students to construct graphs, graphically solve equations, inequalities and systems, find definite integrals, surface areas and volumes of bodies of revolution.

- 8. Using the GRAN 2D program, students can solve construction problems on a plane. GRAN 3D is used in space to construct sections of polyhedra and bodies of revolution, helps to build combinations of polyhedra with polyhedra, or with bodies of revolution. It is convenient that the computer helps to perform cumbersome calculations that take a lot of time in the lessons.
- 9. Storytelling is one of the technologies, or the art of interestingly telling stories. In mathematics lessons, the teacher can activate the educational and cognitive activities of students by telling a story about the importance of mathematics in people's lives. For example, after studying the signs of equality of triangles in geometry lessons

in the 7th grade, you can interest students in the question «How to determine the distance

to an inaccessible point?», for example, a house located on the other side of the river. The following services can be used to organize online training:

1. Gios. The platform has online mathematics courses for grades 5-9. The Gios service has the seal of the Ministry of Education and Science of Ukraine and fully corresponds to the mathematics program.

This platform contains video lessons on theory, examples of solving problems and a practical unit (tasks in the form of a test).

- 2. My class. The service contains online courses from the 1st to the 11th grade.
- 3. EDERA, Course «Mathematics is simple».

This course helps to systematize knowledge of mathematics. It is especially useful for high school students who have to take the NMT (national multi-subject test).

During distance education, the teacher must adapt the calendar and thematic plans, namely:

- highlight topics that can be taken out for independent study;

- reduce topics that are easier for students to learn and thereby save time for topics that require detailed study;
- topics that are planned to be studied independently should be divided into logical thematic blocks. The teacher should provide students with instructions and advice for mastering the material and criteria for evaluating the learned material.

According to the «New Ukrainian School» concept, there is a change in the organization of the process of teaching mathematics.

Under modern conditions, distance learning is a requirement of the time, therefore teachers need to develop their range of competences, create interesting lessons for students, be fluent in modern distance learning technologies, use software pedagogical tools and existing services that activate the educational and cognitive activities of students of different ages.

If we talk about studying in institutions of higher education, distance learning is mostly combined with face-to-face. This happens sequentially (they study sometimes in classrooms, sometimes remotely) or in parallel (some students study in classrooms, and some remotely).

At the same time, the purpose, goals and tasks of each academic discipline do not change. And the methods, organizational forms and teaching tools are improved and adapted to new requirements and conditions. The main means of distance learning are:

- modern pedagogical technologies;
- available technical capabilities;
- capabilities of the subject of study.

Among the technical capabilities, the technical parameters of the computer used by the subject of study and the ability to connect to the worldwide Internet are especially highlighted. Distance learning systems use special communication technologies (electronic and non-electronic) to support the interaction of the subjects of the distance learning process, namely directly those who teach and those who study, as well as those who organize the technical process. Information and communication technologies (ICT) provide communication between all participants of distance learning. Among them, the following are distinguished:

- 1. symbolic or text educational information objects. These include an electronic whiteboard, a multimedia whiteboard, newsletters, teleconferences, etc.;
- 2. symbolic and graphic statistical and dynamic educational information objects: audio and video communications in real time, interactive audio and video.

Since we are talking about the distance form of student education, which is combined with face-to-face, the part of the course offered for consideration remotely can be:

- automated (training takes place without a person accompanying the training);
- under control. In this case, there is a person who monitors the learning process and provides consultations;
- interactive. It assumes the existence of a person who supports the course of training, not only controlling it, but also participating in discussions, group discussions, providing instant advice on complications;
  - network. In this case, a personal learning environment is created, which requires

the additional use of technologies, for example, web cameras, Viber applications, YouTube, etc. [O. Rudenko. «Mathematics remotely»].

The use of information and communication technologies is a new level of mediating mental, creative, communicative, and executive activities and leads to a radical restructuring of various aspects of activity. The effectiveness of pedagogical action during the application of distance education using computer telecommunication networks is possible provided that the peculiarities of communication between the teacher and the student are taken into account.

t should be taken into account that:

- information in the process of communication is not only transmitted, but also assimilated, understood and realized;
- verbal communication is implemented with the help of actual, debatable types of dialogues;
  - the interactive side of communication is manifested in joint activities;
- during communication, there should be mutual understanding between its participants.

Communication during distance learning has a certain specificity.

- 1. The teacher is a group. The main purpose of this communication is to set goals and analyze the results of students' activities.
- 2. The teacher is a student. The coordinator manages the actions of an individual student, gives advice, recommendations and analyzes the results of activities.
- 3. A student is a teacher. The main form of such communication is a request from the listener, who tells the teacher what information he needs. In this case, the student becomes aware of his ignorance, the ability to distinguish it as a separate category. By formulating his difficulties, the student learns to anticipate possible complications in the work of others during the study of this material, independently pose a problem, and present the results of his work.
- 4. Student 1 student 2. Similar interactions occur spontaneously at first. As a rule, the most active participants of the distance course are the first to come into contact.
- 5. A group is a student, a student is a group. In educational activities, cooperation with classmates is an essential moment of knowledge acquisition, because the polarization and coordination of points of view in the group is a way of recognizing the limits of each student's knowledge and ignorance.

All of the above should be taken into account when transitioning to distance education in the process of studying all academic disciplines by students.

Let's consider distance learning of the discipline «Projective geometry and methods of images». The final module of this discipline is module 3 «Projective geometry», which is studied remotely. An important place among the topics of this module is occupied by topics related to configuration theorems: «Theorem of Desargues. Principles of duality», «Complete tetrahedron and its harmonic properties», «Theorems of Pascal and Brianchon».

It is during the study of these topics that the acquired skills to solve construction problems are improved, and new skills are formed to solve construction problems with one ruler based on configuration theorems.

Distance learning is carried out with the help of teleconferences. Teleconferences

are a type of event in which group communication is carried out between geographically distributed participants using technical means. Computer conferences can be held using various forms of organization, the best online resources are Zoom and Meet. We use them when teaching projective geometry.

Let's consider the forms of training classes. The lecture is one of the most important forms and forms the basis of the theoretical training of the students. Their purpose is to provide a systematized basis of scientific knowledge of projective geometry, to reveal the problems, to focus attention on more complex and knotty issues. A study of approaches to geometry lectures revealed the expediency of using text lectures («electronic lectures»). «Electronic lecture» is a set of educational materials in electronic form, the content of which includes, in addition to the text, additional materials (excerpts from scientific articles, historical references with portraits of outstanding mathematicians, whose names bear the theorems under consideration).

At the lectures, students learn and realize the knowledge that underlies the ability to perform specific constructions. In particular, while studying configuration theorems, students build Desargues and Pascal configurations according to the teachers step by step, but before that, drawings with a ready configuration are offered to their attention. The teacher first shows the picture on the computer monitor, and then uses the «Electronic board» resource to build the image on the computer screen, students build after the teacher in a notebook (ordinary) with a pencil and a ruler.

The ability to perform geometric constructions and solve construction problems is formed in practical classes. Practical classes are an active form of educational classes and are widely used during the teaching of geometry. They are conducted using computer video conferences. Students solve problems using the frontal form of work, or individually, and not only for construction.

When solving a construction problem, a drawing of the desired shape is shown, the condition is shown, and a solution plan is drawn up. The construction on the electronic board is performed step by step by a student (appointed by the teacher or who has shown activity himself), all this happens in the mode of a video presentation, other students build with ordinary means (a ruler and a pencil) in an ordinary notebook, as an option, the construction can also be carried out with the help of a computer on the screen of one's own computer, but this (very often) delays the solution of the problem.

With such an organization of training, the teacher has difficulties with the organization of individual approaches to students. If the student does not succeed in something, then you can contact the teacher for consultation through a video call in the Viber application, show the constructed image and get a hint on how to complete it. For example, such situations arise when the lines of the specified configurations intersect at non-own or inaccessible points.

Very often, constructions are suggested to be performed according to a guideline rule, which is displayed as a sequence of steps on the screen. This is very convenient, because you can return to it every time you solve the corresponding basic task.

The degree of complexity of educational activities (assimilation of knowledge and formation of skills) during solving educational tasks in practical classes on projective geometry and image methods determines:

- activity according to the model in different situations and conditions, practice of operations;
  - reproduction of actions in different conditions and situations;
- reproduction of actions with a separate addition of necessary conditions, modeling of activity;
  - partially search activity, examination and resolution of problem situations.

One of the forms of guiding students' work and providing them with assistance during independent study of educational material is consultation. Consultations can be individual or group. Consultations with the use of information and telecommunication technologies are carried out by telephone, e-mail, video and teleconferences. With the help of consultations, a person-oriented approach to student education is implemented.

**Conclusions.** Therefore, distance education at the current stage of the development of Ukrainian education is important, and in modern social conditions, it is the main form of education at various levels of its acquisition. Thanks to the successful organization, the appropriate level of knowledge acquisition and the formation of relevant skills in geometry is maintained during distance learning of future mathematics teachers at the pedagogical university.

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# SOCIAL AND CULTURAL SCIENCES

# ORGANIZATION IN SOCIO-CULTURAL ACTIVITY: FEATURES OF CREATION AND PROSPECTS OF DEVELOPMENT

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Annotation. The article provides an overview of publications in which conceptual approaches to the classification of the organization in the socio-cultural sphere have been studied. The essence of the concept of "organization" is considered and supplemented, the stages of the process of forming a model of organizations in the socio-cultural sphere are substantiated. The activity system of socio-cultural organizations is described. A conclusion was made about the expediency of further scientific investigations in the direction of socio-cultural activities, namely the theoretical substantiation of practical recommendations for building an organization system: features of creation and prospects for development.

**Keywords:** organization, socio-cultural sphere, management of socio-cultural activities, entrepreneurial model of the organization.

Formulation of the problem. The socio-cultural sphere as a special organizational component allows to systematize the competent actions of specialists, support the relationships of various structures and organizations, attract resources, act as an effective modern management model [1] (Tadlia, O., 2020). Management is understood as organizational activity aimed at the development of certain stages that contribute to the effective solution of tasks, being a means of direct interaction, resource potential and, under certain time frames, a specific systemic form of regulation of sociocultural processes [2] (Martynyshyn, Y., Khlystun, O., Adamonienė, R., & Dibrova, V. (2020). Given that the specific feature of management in a manager's activity is related to the analysis, design and implementation of various measures, this aspect has the ability to be influenced by technologies that provide answers on the modern needs of the sociocultural organization

Thus, in determining the problematic direction of the research, it is worth focusing attention on the main elements of the socio-cultural organization as an open system and analyzing the peculiarities of its creation and development prospects.

A modern manager of the socio-cultural sphere constantly works in an environment where he himself becomes a subject of activity. The problem of the technology of creating an organization in the activity of a manager of the socio-cultural sphere deserves constructive attention.

The following scientific works are devoted to solving problematic issues related to the functioning and development of management processes in the sphere of culture and art, the development and testing of technologies of organizational aspects of sociocultural management: Astley V.G. and Van de Ven A.H. (1983) formulates perspectives and debates in organization theory, Juli, J. E., Gould, A. M. (2023) distinguishes theory, explanation, and understanding in management research; Rojas-Cordova, C., Williamson, A. J., Pertuse, J. A., & Calvo, G. (2023) Uncovering Why One Strategy Doesn't Fit All: A Systematic Review of Research and Exploitation Across Organizational Archetypes; Martynyshyn Y., Khlystun O., Adamonene R., Dibrova V. (2020) note systemic analysis in sociocultural management: theory, methodology and technology; Kondra, A. Z., Hurst, D. K. (2009) analyze institutional processes of organizational culture; Drucker P. (2007) focuses on modern management challenges for the 21st century; Strati, A. (2000) distinguishing Theory and Method in Organization Studies: Paradigms and Choice; Kerzner, G. (2017) conceptualizing Project Management: A Systems Approach to Planning, Dispatching, and Controlling. understands the theoretical and practical aspects of designing in the field of academic musical art; Ren D. A. and Bedeyan A. G. (2023) formulates the evolution of management thought; Kay, R. and Alder, J. (2017) planning and Management; Drory, I., Honig, B. and Schaeffer, Z. (2009) The Internet Firm Life Cycle: Scenarios, Legitimacy, and Identity; Nadeem, A. and Singh, P. (2019) leading Change for Success: Embracing Resistance; Kofinas G. P. (2009) Adaptive co-management in social and ecological management. Principles of Ecosystem Management: Resilience-Based Natural Resource Management in a Changing World, Dufour, Y., Steane, P., & Corriveau, A. M. (2018) from Organizational Life Cycle to Ecocycle: A Configurational Approach to Strategic Thinking; Nadim Arne G. (1994) social Organizations: Interaction Within, Outside, and Between Organizations.

Noting the importance of the scientific research of these scientists, it should be emphasized that the mentioned problem requires further research into activities that allow to complement the very nature of practical work, to identify and form competent actions of the manager of the socio-cultural sphere in the management of art projects. In particular, this concerns the prerequisites for identifying technologies and features of creating an artistic project, clarifying individual stages and forms of activity in the socio-cultural sphere. Thus, the identified unsolved problems allow us to formulate the purpose of our work.

The aim of the study. Identify and analyze the main elements of the sociocultural organization as an open system, a kind of strategic tool capable of ensuring the implementation and effective activity of the manager of the sociocultural sphere.

**Presenting main material.** The organization initiates and plays a special economic role in the life of society and is the main structural and sociocultural element of market realities. The activities of organizations have a multi-functional nature, and sometimes have an ambiguous theoretical and methodological basis, where in the process of

constant knowledge there is a conflict situation with certain contradictions between the fundamental level of cultural experience of the past heritage and specific operational practice, which is specified by real events that lead to the generation of certain concepts, which in turn substantiate the stages of its emergence and further functioning.

The theoretical description of the phenomenon "organization" can be found in various theories and purely management concepts, where the organization acts as an object of management [3] (Astley, W. G., & Van de Ven, A. H., 1983); [4] (Joullié, J.E., & Gould, A.M., 2023).

The awareness of the essence of the organization is understood as such a holistic entity that transforms raw resources into a final product, where the parameters of its production function are determined by those technological processes that are used for the production of this product. The main task facing the organization should be focused on finding such a volume of resources and their ratio, which will allow producing a sufficient number of products. Sufficiency and necessity will be determined by the ratio of the marginal costs of the organization and the market price.

Таким чином, функція такої організації обмежується інструментальним характером: вона слугує тільки «передатковою ланкою» між попитом та умовами ресурсних ринків при заданій виробничій технології.

Scientists Rojas-Córdova, C., Williamson, A. J., Pertuze, J. A., & Calvo, G. (2023), emphasize the need to take into account the simultaneous pressure on the organization and its environment of factors of external and internal origin, where a dilemma constantly arises regarding the possibilities of external and internal use of available resources [5]. Each organization chooses an individual direction, combining relations between external and internal factors, motivating motives and limitations.

At the same time, the top-down principles by which the creation and construction of the organization took place, as well as the initiation of management [6] (Wren, D. A., & Bedeian, A. G. (2023) acquire special importance. These basic provisions are a reflection of those laws that will determine the features of the design of organizations and the mode of coordination of all types of its relations with both the external and internal environment. According to this understanding of the essence of internal and external organizational processes, a whole series of problems that are primarily related to the vital activities of the organization may become aggravated, namely: the adoption and implementation of management decisions, organizational structure, establishment of target orientations, including strategic ones, and means of their achievement.

According to P. Drucker (2007), in modern society there are market institutions of all types, sizes, purposes and structures. Institutes are characterized by the following main parameters: purpose of existence (purpose), scope of application, functional content, time period for change, functional costs, degree of rejection or acceptance of innovation, degree of stability of the institution and resistance to transformations into another form. "Challenges of management in the 21st century look at the future of managerial thinking and practice in a new way. The content revolves around two fundamental issues that are happening simultaneously: changes in the global economy and shifts in governance

practices. These developments, especially in developed countries, are crucial for studying and understanding the challenges of the future" [7].

Thus, the purpose and target priority of an organization whose philosophy corresponds to the institutional theory is to establish a balance between tasks determined by a specific internal socio-economic policy and the public interests of the system in which this organization operates.

Institutional theory assumes that the external environment has a certain pressure on the organization and forces it to develop legitimate rules that correspond to social norms [8].

The creation of the organization is due to the need to increase efficiency from the use of internal connections between its members. A typical task, which is solved by the organization according to the institutional theory, can be presented as the optimization of the mode of operation in the presence of diverse interests of market subjects and the available information space [9].

Thus, the level of efficiency of the organization and its management system will be the higher the quality of the amount of information at their disposal, and the more quickly and fully it will be used.

Today, the need for careful planning and control of general processes in the organization is increasingly relevant [10], [11]. An organization becomes appropriate for creation only if the operating costs are lower than the corresponding costs in open markets. According to these provisions, the organization works efficiently and is competitive if the costs of economic operations within it are lower than those of other market participants. Such a requirement can be achieved under the conditions of reassignment of unproductive work or part of it to other organizations or specialists, partial or full performance of individual management and production functions outside the organization and regulation of distributed activities in order to achieve maximum satisfaction of consumer needs. Therefore, the main task of the organization is the comprehensive reduction of operating costs, which becomes a fundamental aspect that ensures organizational development.

Evolutionary organizational theory has gained considerable popularity as the ideological basis of the concepts of the "organizational life cycle" [12], [13].

Thus, the priority for the functioning of the organization, whose internal ideology of creation corresponds to the principles of ecological theory, should be the development of its own characteristics that correspond to the parameters of the external environment. The main task of management from the point of view of the ecological model of the creation of the organization consists in the formation of one's own potential with a clear orientation to the external environment. The problem of current efficiency comes first, that is, the transformation of existing resources and competencies into competitive advantages, rather than the development of resources and competencies that would allow generating only certain opportunities, for example, market ones.

It is extremely useful from the point of view of management that the evolutionary model is based on the principles of situationism and assumes the absence of a single criterion for optimizing management decisions. The most important thing in the evolutionary theory, in our opinion, is the assumption about the possibility of changing the criterion of the effectiveness of the organization's functioning and the duality of its status, namely: belonging to a certain "population of organizational formations and the possibility of having "its own traditions in a certain direction of activity, volumes and offers of involved factors". That is, he will take into account the advantages that will be provided when making a management decision and the real mode and experience of success - failure of the organization's functioning.

The entrepreneurial model of the organization is based on the existing variety of forms of ownership and organizational and legal forms of organizations and the inevitable overcoming of contradictions, which are caused by the need to subordinate the results of the organization to the multiplicity of goals and interests of parties or stakeholders interested in its activities, that is, those who influence the activities of the organization, and those who falls under its influence. Social groups of stakeholders include: competitors; consumers of goods and services; territorial communities; ecological condition of the territory; resource providers and partners; other interested groups that significantly influence the organization's activities.

This theory is based on the obligation to coordinate the interests of the organization's participants. The main idea of this concept is that the results of the organization's activities have multiple subordination and are a source of problems and contradictions between the state, owners, management system and the collective. The process of determining priorities and aligning the interests of the parties involved in the distribution of results or the final product is complex, because it is a mandatory procedure to maintain the integrity of the organization and ensure its development.

To reflect all the diversity of aspects of the organization's functioning, a concept is proposed that integrates the positives of the above theories and can be recognized as active-adaptive [14]. The active-adaptive theory of the organization is based on the fact that organizations do not simply play the role of a passive observer of the changeability of the external environment, but must manage the external conditions of their functioning [15]. According to the theory, the achievement of the set goals takes place under the conditions of the existing potential and strategically oriented active influence on the external environment.

The components of success are synergistic relationships and interdependencies between the limited available resources of the organization and the principles of their use, which correspond to the well-founded utility function of the organization's behavior. One of the key reasons failure to ensure effective management of a socio-cultural organization – the impact of the uncertainty of the external environment on direct activity – is eliminated or leveled, which allows managers to focus on making management decisions with the maximum usefulness of the final results. In our opinion, the active-adaptive model of organization creation and behavior is the most promising and effective. It forms the basis for full and indisputable use of the existing potential of the organization, aggressive search for new opportunities, prevention of conflicts and

problems, provides the possibility of using intensive technologies.

The extraordinary importance for maintaining the essential significance of the concept "organization", from our point of view, is that it belongs to a group of economic categories according to the following criteria: universality, fundamentality, interconnectedness.

The category "organization" is characterized by universality, which is manifested in the similarity of the system of subject-object and object-subject relations in the general structure of relations, including managerial ones. From this point of view, the properties of internal organizational interaction should be "predictable, orderly, expedient, sustainable." This ensures compliance of the organization category with the "versatility" criterion. The system paradigm assumes, on the one hand, a clear identification of the organization in one of the structured meaningful spaces (economic organization, state or market institution, labor collective, focus group, etc.), and on the other hand, the organization cannot be such that it exists only in one identification space and should be considered comprehensively.

The category "organization" serves as a fundamental basis for the formation of general explanatory principles, with the help of which the relationships between the subject and the object of management or between other phenomena and processes are analyzed. It should be emphasized that for completely independent systems, not only the types of intersystem interaction can be extremely diverse, but the interaction itself will acquire both an irrational and a rational character.

For such a category as "organization", the changeability of its individual components determines the provision of a new meaning to the whole concept. This criterion has an extremely important theoretical and methodological significance, because it actualizes the obligation to conduct continuous research of significant parameters of the organization and its environment.

There are different approaches to the interpretation of the term "organization". It should be noted that even today the understanding of the essence of the category "organization" is a debatable issue and even one that introduces a certain dissonance into the practice of research. The search for the most accurate definition of the essence of the concept of "organization" within the classical and neoclassical paradigms remains the object of the greatest attention for scientific thought. The version that the organization is a group of people whose activities are deliberately coordinated to achieve a common goal has become the most widespread [16]. Such an approach among the key elements of the "organization" category involves the selection of the following elements: man-society, structure, goal, technology, functions, which are the object and means of organizational transformations.

Thus, every social entity interpreted as an "organization" must meet the following characteristics: have at least two persons in its composition, united by a common goal, activity and conscious coordination of actions.

Summarizing the scientific-theoretical and empirical results published in the scientific literature, we will come to the conclusion that the term "organization" also

exists in another context: to define activity as "ordering of all elements of a certain object in time and space" or as "an aggregate processes or actions that lead to the unification of elements, parts into a whole" and "formation of a viable sustainable system", and "improvement of relationships between parts of the whole". In addition, it is identified with the simple creation of a formal organizational structure as "the process of creating an enterprise structure, transferring tasks and powers to a person who takes responsibility for their implementation" and "correct selection of personnel."

In our opinion, this interpretation is more in line with the concept of "organizing". Because the term "organize" is appropriate to use when it refers to a process involving "people, their work, their efforts", on the one hand, and on the other - when it is necessary to "group people for some purpose, coordinate and regulate their actions in the spirit of expediency". It is likely that this fact explains the inconsistency in the understanding of the etymology of this word, and also causes the destruction of the single semantic load of the term.

In explanatory dictionaries, you can find the cognate words organization and organize (English), organization and organizer (French), which correspond to the static "organization" and the dynamic "organize" contextual content, respectively. They have the same etymological roots and come from the Greek word oryavov "organon", which means a device, a tool. In our opinion, considering the organization in the context of "action" rubs off belongs to systemic ideology, because "such a set of objects that does not acquire integrity, or does not have single subjects of management, or has antagonistic and conflicting relationships" cannot be considered as a system. In view of this, we also consider the opinion of some scientists who claim that activities in organizations are coordinated "spontaneously" to be erroneous.

Using all the possibilities of human resources management becomes a priority direction in the activities of prosperous art firms and cultural institutions. As a result, organizational-technical and social-psychological conditions are created for the formation of labor potential and the maximum realization of professional, physical and spiritual qualities of professionals. And modern managers strive for the organization under their management to work in an open system mode, interacting with the environment, to use the full intellectual and spiritual potential of the staff and modern situational technologies in solving the most difficult tasks of survival and development.

The comparison of open and closed management systems, which is given in table 1, becomes interesting.

The new management paradigm requires that management hierarchies, rigid schemes and rules be replaced by teamwork, direct interactions, permanent innovation, continuous learning and improvement. In this case, managers turn into assistants and partners for subordinates, they must be able to take conscious risks, promote fuller development of abilities and effectively use their energy.

Such requirements led to the emergence of a new type of organization - a learning organization. The key to the success of such organizations is the creation of work teams and the mutual exchange of information, which contributes to the formation

of an atmosphere of trust and a sense of belonging to the company. The traditional model of an organizational structure built with a single top-down chain is giving way to new, flatter models that support the self-management of competing teams that include representatives from different departments and different levels of management. Team management is especially widely and fruitfully used in the field of art and culture.

Table 1
Comparison of open and closed social objects (organizations)

No	Comparative characteristics	Traditional organizations	Modern organizations
1.	Managerial thinking	staff Thinking of a closed system	Thinking of an open system
2.	The main goal	Economic efficiency	Стійкий розвиток
3.	Assumptions about environment	The environment is predictable	The environment is completely uncertain
4.	General characteristic behavior	Monotony. Emphasis on planning and management	The search for a new type of behavior,
5.	Sources of development	Internal: increase in labor productivity of personnel; cost reduction; saving resources; own innovations; own funds from profits	Internal: the same. Mainly external: information about innovations; investments; new resources; new markets
6.	Technology management	power and responsibility, that is. bureaucratic regulation; division and cooperation of labor at the enterprise, in the industry; economic coercion	integration of interests, values and goals of personnel; Involvement of personnel in decision-making; transfer of information to personnel, training in the use of information

The educational organization can be represented by the following elements: vision and corporate culture of managers; authority; new structures and their "flattening"; sources of internal information; socio-cultural technologies: education, trainings, team actions.

The new management paradigm is based on the modern integrative perception of the world, which is not stable and involves the search for an acceptable state of the object (organization) in continuous change.

**Conclusions.** Thus, the advantages of the organizational approach, which is a continuation and development of the processional, system and situational approach in management, are:

1. a fundamental basis that provides a wide range of research, where approaches are considered that are the boundaries of the whole and determine its stages within these

## boundaries;

- 2. a combination of new modern theoretical developments and their practical application to increase the effectiveness of the activities of organizations in the socio-cultural sphere;
- 3. the possibility to choose the optimal path of effective development on the basis of system forecasting, which takes into account the unity of the mission, goals, tasks of the organization in its relations with the external environment.

Thus, managers of the socio-cultural sphere must confidently navigate the modern social space of urgent needs, evaluate and draw up business plans, a strategy for the promotion of goods or services, or orient the socio-cultural market according to their individual values; analyze information materials, be able to turn information into a business or social component, while applying the principles of formation, functioning of the management system, professional experience, technologies, finances and legal components for the development of the organization and the realization of one's artistic project.

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