



# **Innovative tools for socio-economic systems' development**

edited by Oleksandra Mandych  
Aleksander Ostenda

**Series of monographs Faculty  
of Architecture, Civil Engineering  
and Applied Arts**

Katowice School of Technology

Monograph 25

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## PREFACE

The monograph is devoted to the formation of innovative tools for the development of socio-economic systems. The current state, peculiarities and trends of development require the socio-economic systems to constantly search for new forms and methods of management, as well as alternatives through the introduction of changes aimed at economic growth. Moreover, economic growth is the main indicator of the development and prosperity of each state and at the same time is the most important characteristic of social production. The parameters of economic growth are widely used in assessing the state and prospects of development of the national economy, and its potential is the key to the formation of a mechanism for the effective functioning of various sectors of the economy in the country. The unfilled capacity of the Ukrainian market (goods and services) in the field of agribusiness, the virtually unlimited potential for tourism development and ecological production in Ukraine create all the necessary conditions for increasing the level of competitiveness of domestic enterprises. Formation of the proper level of competitiveness is the end result of the production and commercial activity of enterprises, which requires the business entities to introduce the latest management mechanisms. In order to ensure a high level of competitiveness and efficiency, it is necessary to determine the directions of organizational, production, technological and commercial changes, the implementation of which is the content of strategies for creating and realizing competitive advantages. Strategic management includes in its functionality issues related to the introduction of innovative tools based on the involvement of the latest technologies, technical and technical upgrades, as well as the formation of human capital. However, there are also restraining factors, which include complexity in technological support, underdevelopment of market infrastructure, lack of relevant competitive strategies in place, as well as the risks involved in shaping a gradual adaptation process and introducing appropriate strategic changes, etc.

Of course, all the components of competitive development of business entities in different areas will be different. However, there are a number of common problems for each industry, the solution of which lies in the formation of models of innovation and investment development. These problems can be addressed if strategic changes are made; risk management systems and strategic management are implemented. This necessitates the development of methodological tools, methodological support and practical recommendations. The main efforts of the research presented in the monograph are devoted to solving these problems.

The monographic research presents the scientific developments of the team of authors. They reveal different directions and aspects of modern socio-economic systems. These include the following: innovative tools for the development of socio-economic systems, strategic management as a basis for ensuring competitive development of enterprises, as well as innovative trends in the development of modern organizations.

The first section of the monograph "Innovative tools that develop socio-economic systems" discusses the development of agribusiness in Ukraine; the importance and role of innovation in shaping the competitiveness of enterprises; planning of organizational structure of enterprise management in the conditions of introduction of innovative production technologies and technological changes; risks in the management of commodity specialization of agricultural enterprises; principles of strategic management of land use of agricultural enterprises of Ukraine; factors of efficiency of innovation-investment activity of agricultural enterprises; state support of innovative activity in agriculture of Ukraine; methodological aspects of assessing the competitiveness of an agricultural product; features of innovation and investment activity in the

field of landscaping; generalization of approaches and models of enterprise change management; organizational change management processes based on project approach methodology; formation of strategies of organizational changes in the management of agricultural enterprises as a necessary condition for their innovative development.

The second section of the monograph "Strategic management tools as a basis for ensuring competitive development of enterprises" addresses issues related to marketing and logistics business models for different markets; competitiveness of organic production and prerequisites for the formation of competitive strategies for its development; innovative marketing technologies for organic production; an innovative mechanism for improving the organization of marketing management at the enterprise; dependence of economic efficiency of enterprise activity on the impact of globalization processes; financial and credit support to the agrarian market of Ukraine; market positions and formation of marketing activities of manufacturers; strategic management of enterprise marketing activities based on SWOT-analysis; assessment of economic indicators of Ukrainian economies; theoretical and methodological aspects of strategic management effectiveness assessment.

The third section of the monograph "Innovative trends of modern organizations development" presents the results of research in the field of agritourism as a tool for diversification of agricultural units and as an innovative project of modern globalization; improving the efficiency of students' preparation in higher educational institutions of agricultural profile in the specialty "tourism"; main aspects of innovation and investment activity of rural tourism enterprises; management of tourist industry activity on the basis of modern information technologies; generalized scientific approaches to defining the principles of management accounting; the influence of public administration on ensuring the socio-economic development of the region; the issues of information-axiological training of future agrarian specialists in the cultural aspect and linguistic practices as anthropotechnics in the context of informative modernity are considered; the role of information and innovation technologies in the modern economy and the role of the state in supporting the field of promotion of an innovative investment model for the development of companies in Ukraine are analyzed.

The team of authors hopes that the monograph contains useful research findings that are relevant for scientists, students and all those interested in innovative development of socio-economic systems.

We are grateful to the authorities of Kharkiv Petro Vasylenko National Technical University of Agriculture in the person of Rector Oleksandr Nanka, the first Vice-rector Mykola Lysychenko and Vice-rector for the scientific work Victor Melnik for facilitating the scientific researches and participating in the formation of this monograph. We would also like to thank the Directorate of the Educational and Scientific Institute of Business and Management and personally the director Svitlana Zaika for organizing the joint activity of all authors of the monograph and for supporting the editorial work in the formation of the monograph.

*Oleksandra Mandych  
Aleksander Ostenda*

## **Part 1. INNOVATIVE TOOLS THAT DEVELOP SOCIO-ECONOMIC SYSTEMS**

### **1.1. DEVELOPMENT OF AGRIBUSINESS OF UKRAINE: AN INNOVATIVE ASPECT\***

The current state of the Ukrainian economy, a significant part of which belongs to the agrarian sector, depends on precise estimation, forecasting, effective planning and management of the agribusiness enterprises. Implementation of state acts and regulations, in particular, the State Target Economic Program for the introduction of the latest agricultural technologies in agribusiness, Ukraine-2020 Sustainable Development Strategy, which includes the Program for the Development of Innovations, calls on the agribusiness enterprises to improve their organizational and managerial activities through the implementation and rational management of innovation processes (IP): This is particularly about the processing enterprises, as the agricultural products sector accounts for a significant part of all agribusiness production. Thus, out of UAH 370.8 billion of agricultural production in 2018, more than 230 billion UAH came from processing enterprises. The share of the processing industry of the agribusiness of Ukraine tends to increase in the total volume of exports. The gross value-added associated with the production of agricultural raw materials is not less than 10% and is one of the largest indicators in the structure of Ukraine's GDP. However, in the field of agro-processing, indicators of gross value added are the smallest – about one percent in the structure of GDP, which indicates the significant export potential of Ukraine due to the development of agro-processing enterprises of agribusiness.

This task became particularly relevant after the ratification of the Association Agreement between Ukraine and the European Union with the postponement of the EU-Ukraine Free Trade Area. The EU regulations, directives, decisions and recommendations contained in the annexes to the Agreement are part of the legal standards to be fulfilled by the Ukrainian party. They also urge the processing enterprises of agribusiness to produce innovative products with high-quality consumer characteristics, to use innovative technologies for in-depth processing of agricultural raw materials and their storage, other elements of the IP. The implementation of the requirements for bringing the domestic agrarian business to a higher level, in particular, European standards, stabilizing and developing the agricultural production, requires the development of innovation activity (IA) in the processing industry, and the formation of new approaches and mechanisms for its implementation.

The effective solution of the associated tasks in the rapidly changing economic, social, and political environment requires the use of analytical methods in the management of innovation processes of processing enterprises (MIPE) based on the tools of economic and mathematical modeling taking into account the features of agro-processing production. R. Bellman, V.M. Glushkov, O.G. Granberg, V.A. Zabrodsky, M. Intryligator, R. Kalaba, L.V. Kantorovich, A.V. Lotov, A.A. Pervozvansky, O.I. Propoy, O.M. Ter-Krykorov, and many other scholars studied the issues of economic and mathematical modeling and optimal control in economics. The proceeding and deeper insight into the study of modeling the economy, considering the risks in economic activities under modern conditions, were reflected in the works of such scholars as V.V. Vitlinsky, V.M. Vovk, V.M. Heyets, P.M. Hrygoruk, M.O. Kyzym, T.S. Klebanova, Yu.G. Lysenko, L.M. Malyarets, O.I. Pushkar, O.V. Rayevnyeva, V.V. Khristianovsky, O.I. Chernyak, A.F. Shorikov etc.

Multidimensional research on modeling in agrarian economics was carried out by N.K. Vasiliev, P.M. Hrytsyuk, M.F. Kropivko, S.I. Nakonechny, O.V. Ulyanchenko, S.V. Tsyupko, V.V. Chepurko, and other leading scholars. The research of theoretical and methodological aspects of the issues of modern innovative development of enterprises, its investment support are highlighted in numerous works of such scientists as R. Amit, O.I. Amosha, V.M. Grinova, M. Johnson, S. Zott, Yu.B. Ivanov, S.M. Ilyashenko, T.I. Lepekiko, L. Massa, R.A. Fathutdynov, P.G. Pererva, V. Seizin, D. Tis, H. Chesbaugh, O.M. Yastremskaya, etc.

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\* The article is executed in the framework of research work on the topic «Agricultural production competitiveness management systems in the terms globalization of agricultural markets» № 0119U001387.



However, despite different research, the issue of IA management in the process of dynamic development of agribusiness cannot be considered fully grounded and adapted without an in-depth analysis of production programs at all stages of the IP introduction into the productive work. Several practical issues should also be solved. The issues are related to the program implementation of the relevant models of MIPE in agribusiness in the form of the system of information support (SIS) and the peculiarity of their implementation, which will increase the efficiency of decision-making in the IA of agro-industrial enterprises. Thus, despite the diversity of work on the management of IAs, available economic and mathematical models and methods, modeling in the MIPE and the use of information technology for its implementation in the activities of processing enterprises of agribusiness is an important scientific issue and needs further research.

Domestic agrarian processing industry has a significant innovative potential that is capable of ensuring a high level of scientific and technological development of Ukraine. At the same time, the prevailing sources of growth in the agribusiness processing industry are the reserves of production capacities and the foreign economic environment favorable for the export of agricultural raw materials. Keeping current tendencies in the agribusiness sector, which are based on the low-tech production, as well as the ongoing decline of production in agribusiness proves the necessity of applying scientific approaches to the introduction and management of IP in agribusiness<sup>1</sup>. At present, one of the priorities of the state policy is to modernize the national industry in general, as well as its processing industry, based on IP activation, to use its powerful scientific and technological potential efficiently. Currently, we need to implement comprehensive measures to support the IA of domestic enterprises, including processing enterprises of agribusiness, at all stages of IP, to stimulate the demand for the results of scientific research and innovative development, to provide qualified personnel, and to create favorable conditions for the production of innovation products with a high rate of value-added.

This issue is also relevant to the world community. The development of an IA in the economic development of any country is important. Thus, in 1977, the special commission of the Senate of the United States made conclusions about the prospects for the development of science and technology, which should be preferred to any other component of the national policy or the national programs<sup>2</sup>. In the leading countries, the development and implementation of technological innovation as a decisive factor in social and economic development is the guarantee of economic security. For example, in the United States, the growth of national income per capita due to this factor in recent years is up to 90%<sup>3</sup>. Thus, in today's world, the level of the IA becomes decisive in determining the level of the state's economy. In January 2003, in Helsinki, a round table discussion «Science, Technology, and Innovation Policy: Parliamentary Perspectives» initiated by the Finnish Parliament, as well as UNESCO and ISESCO was held at the international level with the participation of the parliaments of Europe, Asia, Africa, and America. As a result, the participants approved the Helsinki Declaration, which is an appeal to world parliamentarians. This Declaration states that the future development of the global economy is increasingly dependent on the international development of the IA and the continuous improvement of its quality, efficiency, and adequacy. The main criterion for success is determined by the development of national innovation systems, the validity of the implementation of innovation policy at the regional and local levels.

Ukraine, according to the Helsinki Declaration, had to decide on the prospects of innovation development, taking into account their competitiveness. Thus, the Verkhovna Rada of Ukraine<sup>4</sup> approved the recommendations of the parliamentary hearings «Economic Policy of Ukraine: Current Issues», which determined that the priority task of the economic policy focused on long-

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<sup>1</sup> Babenko, V.O. (2014): *Upravlinnia innovatsiinymy protsesamy pererobnykh pidpriemstv APK (matematychni modeliuvannia ta informatsiini tekhnolohii): monohrafiia*. [Management of innovative processes of agro-industrial enterprises (mathematical modeling and information technologies): monograph]. Kharkiv: KhNAU, 380 p.

<sup>2</sup> Science and Technology. U. S. Department of State. Retrieved from <http://www.state.gov>.

<sup>3</sup> Science and Technology. U. S. Department of State. Retrieved from <http://www.state.gov>.

<sup>4</sup> Postanova Verkhovnoi Rady Ukrainy Pro provedennia parlamentskykh slukhan na temu: «Ekonomichna polityka Ukrainy: aktualni pytannia» vid 18.03.2004 r. № 1615-IV. Retrieved from <https://zakon.rada.gov.ua/laws/show/1615-iv>.

term internal factors of growth is the formation of an innovation-investment model of the development. Among other things, this is one of the most important tasks.

Recently, some labor-intensive and technologically outdated productions, which pollute the environment, need reconstruction. Besides, the crisis and competition in the international and domestic markets of agricultural production are aggravated. This requires more attention of managers of agricultural processing enterprises, agricultural holdings and other agricultural enterprises to the IA because its results can enable to produce products that would meet growing competitive demand on the market and provided a fairly high level of profits for agricultural producers<sup>1</sup>. In addition, the requirement to increase the efficiency of the use of investment resources, as well as the desire to obtain high profits, encourages the processing industries to develop an IA that needs the acceleration and effective management of IP in agribusiness, in the processing industry in particular. In Ukraine, the development of enterprises' IAs in different periods tended to grow as well as decline, but in recent years, there has been an increase in the share of processing and industrial enterprises that introduced innovations in their activities<sup>2</sup>.

Important strategic directions for the development of the agricultural processing sector are the introduction of IP that allow for the sustainable restoration of production based on the development of scientific and technological achievements, and is to focus the development of processing enterprises of agribusiness on the activation of the IA and is based on an innovative approach<sup>3</sup>. The innovative approach is referred to as an approach for the use of new technologies to allow the production of knowledge-intensive high-tech production of management that ensures the production efficiency<sup>4</sup>.

To achieve the competitiveness of the Ukrainian economy, where the competitiveness of domestic enterprises' goods and services in the domestic and foreign markets plays a special role, is one of the main tasks of economic science. An important element of competitiveness is innovation, which recently has become crucial for the development of agrarian production in the social system, based on the acquired knowledge and information resources. An increasing degree of openness of the Ukrainian economy and the strengthening of integration processes in the world economy to overcome food insecurity requires adequate responses from Ukrainian agro-processing enterprises.

Dealing with the food security problem in Ukraine is a national task that is directly related to the development of the IA of agribusiness<sup>5,6,7</sup>. Ukraine has long since declared its determination for an innovative way of development. To implement this program, a large number of legislative and regulatory documents have been approved, specialists are actively working on the issue of reorganization in government bodies, hold conferences, forums, and public discussions, consider

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<sup>1</sup> Rozporiadzhennia Kabinetu Ministriv Ukrainy Pro skhvalennia Kontseptsii Derzhavnoi tsilovoi ekonomichnoi prohramy vprovadzhennia v ahropromyslovomu kompleksi novitnikh tekhnolohii vyrobnytstva silskohospodarskoi produktsii na period do 2016 roku vid 23.12.2009 r. № 1650. Retrieved from <https://zakon.rada.gov.ua/laws/show/1650-2009-%D1%80>.

<sup>2</sup> Ukraine in Figures: statistical publication / State Statistics Service of Ukraine. K.: «Avgust Trade», Ltd. 2018. K., 2019. 241 p. .

<sup>3</sup> Babenko, V.A. (2012): Aspekty upravleniya innovatsionnymi tekhnologiyami v sfere pererabotki produktsii sel'skokhozyaystvennogo proizvodstva [Aspects of the management of innovative technologies in the processing of agricultural products]. Innovatsiini tekhnolohii v kharchovii promyslovosti ta restorannomu hospodarstvi: mizhnar. nauk.-prakt. internet-konf (m. Kharkiv, 14-16 lystop. 2012 r.) / redkol.: O. I. Cherevko [ta in.]. Kharkiv: Khark. derzh. un-t kharchuvannia ta torhivli. pp. 141-144.

<sup>4</sup> Babenko, V.A. (2013): Formirovanie dinamicheskoy modeli mnogokriterialnoy optimizatsii upravleniya innovatsionnymi protsessami pererabatyvayushchikh predpriyatiy APK [Formation of a dynamic model of multi-criteria optimization of management of innovative processes of processing enterprises of the agro-industrial complex]. Biznes Inform [Business-Inform]. № 7. pp. 85-88.

<sup>5</sup> Zakon Ukrainy Pro natsionalnu bezpeku Ukrainy vid 21.06.2018 r. № 2469-VIII. Retrieved from <https://zakon.rada.gov.ua/laws/show/2469-19#n355>.

<sup>6</sup> Postanova Verkhovnoi Rady Ukrainy Pro pryiniattia za osnovu proektu Zakonu Ukrainy pro prodovolchu bezpeku Ukrainy vid 14.06.2011 r. № 3498-VI. Retrieved from [http://w1.c1.rada.gov.ua/pls/zweb\\_n/webproc4\\_2?pf3516=8370-1&skl=7](http://w1.c1.rada.gov.ua/pls/zweb_n/webproc4_2?pf3516=8370-1&skl=7).

<sup>7</sup> Ukaz Prezidenta Ukrainy Pro rishennia Rady natsionalnoi bezpeky i oborony Ukrainy vid 09.12.2005 r. «Pro stan ahropromyslovoho kompleksu ta zakhody shchodo zabezpechennia prodovolchoi bezpeky Ukrainy» vid 28.12.2005 r. № 1867/2005. Retrieved from <https://zakon.rada.gov.ua/laws/show/1867/2005/print>.

the problems of innovations in numerous publications. However, the main thing is the launch of real innovative development mechanisms that will work in every sector of the national economy, taking into account national priorities and trends in world development of scientific and technological progress<sup>1</sup>. According to the latest legislative acts, the task of the Government of Ukraine was «to transform the agribusiness of Ukraine into a highly competitive sector of economy competitive in the domestic and foreign markets»<sup>2</sup>.

To support the state intentions, the Cabinet of Ministers of Ukraine approved the Strategy for Sustainable Development Ukraine-2020<sup>3</sup>. This document proclaims the general provisions and declares the basic strategy of scientific and technical development of the branches of agro-industrial production. The necessity of the Strategy development is due to «the problem of a clear definition of the conceptual foundations of the state scientific and technical policy regarding the transfer of agricultural production sectors to an innovative model of development, sustainable competitive production of knowledge-based agro-industrial products». The legal basis for the formation and implementation of the priority directions of the IA is the Constitution of Ukraine, the Laws of Ukraine On research and scientific and technical activity, On state forecasting and development of the programs of economic and social development of Ukraine, On innovation activity, On priority directions of science and technology development, On investment activity, Concept of scientific, technological and innovation development of Ukraine and other legislative acts of Ukraine.

The Verkhovna Rada of Ukraine referred to high-tech development of agriculture and processing industry in Ukraine for 2003-2015 as the nation-wide strategic priority direction of the IA. Thus, the main purpose of reforming the agribusiness as a component of Ukraine's economy is to transform it into a highly effective, competitive sector of the national economy competitive in the domestic and foreign markets, which also requires the state involvement in supporting the IP in the agrarian sector of the Ukrainian economy<sup>4</sup>.

Today, the share of exports of metals, minerals and chemical products in the structure of Ukraine's exports accounts for about 60% of its volume, which suggests that the gross domestic product (GDP) of the country largely depends on fluctuations in the world prices for metals, minerals, etc. To increase the level of GDP, it is necessary to diversify the exported products, which relate mainly to the agribusiness of the country. Besides, according to the estimates by the FAO (Food and Agriculture Organization of UN): by 2050, the world population is expected to reach 9.1 billion. Population growth will come mainly from developing countries with accelerated urbanization, which will lead to an increased demand for food<sup>5</sup>. The global challenge for the processing industry of agribusiness in terms of constant population growth is to increase production by at least 70%. This was stated by Jean-Jacques Hervé, an Advisor to Credit Agricole, PJSC, during a round table discussion «Implementing new technologies: challenges for Ukrainian companies»<sup>6</sup>.

At the opening of the International Investment Forum in Kirovograd, which took place on October 2013, it was pointed out that the agricultural sector forms a large part of the GDP of the country, and the uniqueness of the resource base of the industry creates the virtually unlimited potential for its economic growth. It was also noted that agrarian production is one of the priority

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<sup>1</sup> Zakon Ukrainy Pro osnovni zasady derzhavnoi aharnoi polityky na period do 2015 roku vid 18.10.2005 r. № 2982-IV. Retrieved from <https://zakon.rada.gov.ua/laws/show/2982-15>.

<sup>2</sup> Zakon Ukrainy Pro osnovni zasady derzhavnoi aharnoi polityky na period do 2015 roku vid 18.10.2005 r. № 2982-IV. Retrieved from <https://zakon.rada.gov.ua/laws/show/2982-15>.

<sup>3</sup> Rozporiadzhennia Kabinetu Ministriv Ukrainy Pro zatverdzhennia planu zakhodiv z vykonannia Prohramy diialnosti Kabinetu Ministriv Ukrainy ta Stratehii staloho rozvytku «Ukraina-2020» u 2015 rotsi vid 04.03.2015 r. № 213-r. Retrieved from <http://zakon3.rada.gov.ua/laws/show/213-2015-r/ed20150304>.

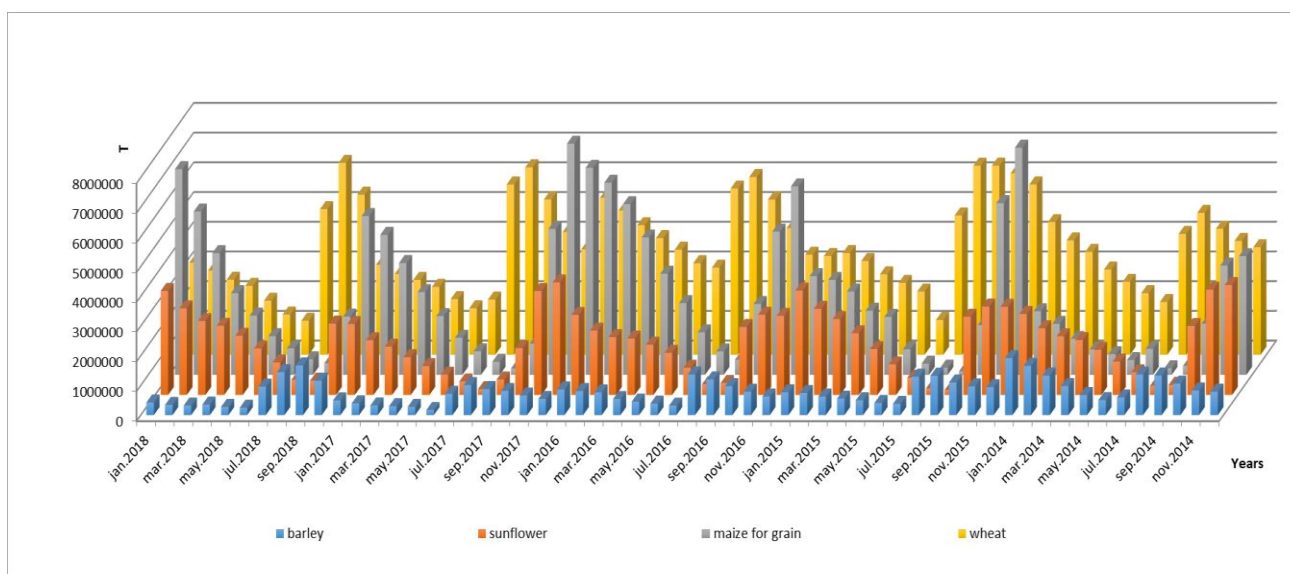
<sup>4</sup> Uriadovi portal. Yedynyi veb-portal orhaniv vykonavchoi vlady Ukrainy. Retrieved from <http://www.kmu.gov.ua/control>.

<sup>5</sup> Agrarnyy sektor Ukrainy: investitsionnaya privlekatel'nost', nesmotrya na nesovershennoye regulirovaniye. IFC (Mezhdunarodnaya finansovaya korporatsiya): APK-inform. 2017. Retrieved from <http://www.apk-inform.com>.

<sup>6</sup> Vnedreniye novykh tekhnologiy: vyzovy dlya ukrainskikh kompaniy: materialy kruglogo stola. Agrokholding «KHarmeliya». 2017, 29 iyulya. Retrieved from <http://http://www.harmelia.com/2017/07/29>.

issues in terms of investing<sup>1</sup>. Concurrently, Ukraine has a huge agrarian potential: black earth, convenient geographical position in the export markets, deep-sea ports, developed infrastructure, which is a large and powerful basis for the development of a competitive agrarian sector, including its processing sub-sector, which is one of the sources of the economy's growth and development and raising the standard of living of the country's population.

To substantiate the relationship between the component of processing enterprises' production of the main types of products and the availability of agricultural raw materials, the factor of seasonality concerning the raw materials of plant production was taken into account. Based on the statistical information<sup>2</sup>, the volumes of production of the main types of products of processing enterprises of agribusiness on the basis of crop raw materials in the period of 2014-2018 in monthly terms (fig. 1) were collected, as well as available volumes of corresponding types of agricultural raw materials of crop production for the same period (fig. 2):



*Fig. 1. Dynamics of the availability of grain crops in the period 2014-2018 in the monthly cut*

The input data for the analysis was the system of indicators of production of processing enterprises of agribusiness and agricultural enterprises, structured into two main components of production: production of the main types of products by processing enterprises of agribusiness on the basis of crop raw materials (margarine, spreads and food mixtures ( $v_1$ ); sunflower oil unrefined ( $v_2$ ); bread and bakery products ( $v_3$ ); cocoa-free sugar confectionery (including white chocolate) ( $v_4$ ); vodka, liqueurs and other alcoholic beverages, malt beer, except alcohol-free beer, and beer with an alcohol content of less than 0,5% ( $v_5$ )) and volumes of the main types of crop raw materials available for this production – grains (wheat, rye, millet, rice, buckwheat, and corn (in terms of grain); barley (including brewing); leguminous plants, oats, wicks, other grains) ( $z_1$ ) and oilseeds (sunflower seeds, soybean, and rape) ( $z_2$ ):

<sup>1</sup> Agrovypusk agrokhodringa «KHarmeliya». Agrokhodring «KHarmeliya». 2017, 4 okt. Retrieved from <http://www.harmelia.com>.

<sup>2</sup> Ukraine in Figures: statistical publication / State Statistics Service of Ukraine. K.: «Avgust Trade», Ltd. 2018. K., 2019. 241 p. .

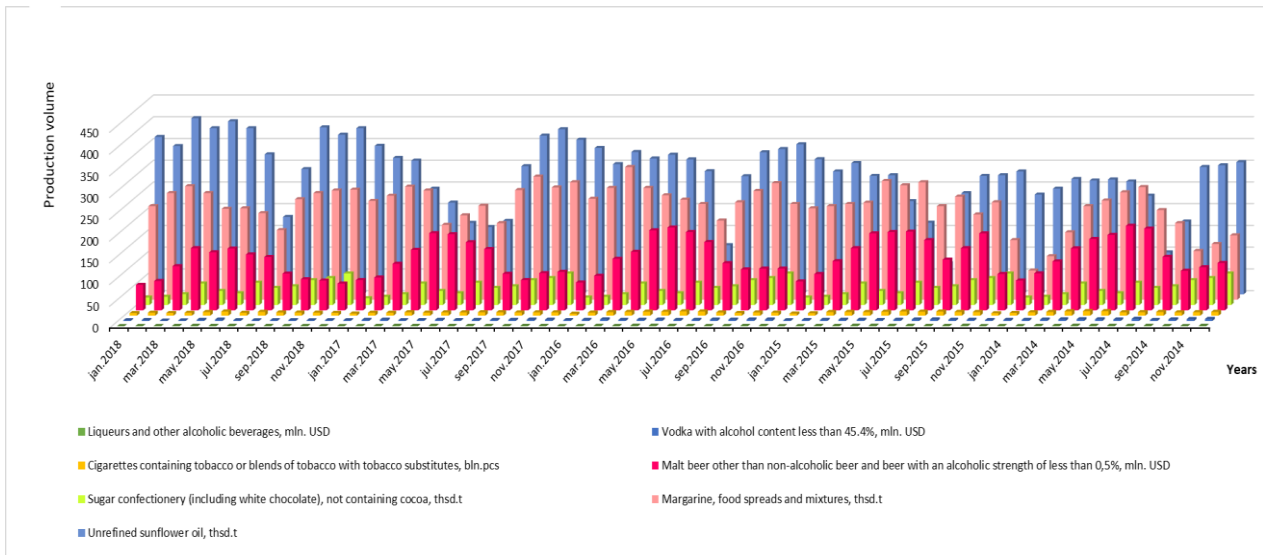


Fig. 2. Dynamics of production of processing enterprises of agribusiness in the period of 2014-2018 in monthly terms

Based on the grouped data, the canonical correlation procedure was performed<sup>1</sup>. To solve this problem, the author used the *Statgraphics Centurion* package, the *Canonical Correlation* procedure. The construction of the model of the relationship between the component of the main production of processing enterprises of agribusiness on the basis of crop raw materials ( $v_1, \dots, v_5$ ) and the availability of the main types of crop production ( $z_1, z_2$ ) using canonical correlations is fulfilled. Thus, the model of the relationship between these constituents has the following form:

$$\begin{cases} U_1 = 0,014v_1 - 1,001v_2 + 0,238v_3 - 0,991v_4 - 0,150v_5 \\ V_1 = 1,339z_1 - 1,193z_2 \\ r_{u_1v_1} = 0,983 \end{cases}$$

The coefficients in the equations for the canonical variables  $U_1, V_1$  characterize the effect of the initial values on these variables. This allows performing a ranking of signs by the power of their influence. Thus, the rating of the indexes by the influence of the first canonical variables  $U_1, V_1$  in the relationship between the component of the main production of processing enterprises of agribusiness on the basis of crop raw materials ( $v_1, \dots, v_5$ ) and the availability of the main types of plant products ( $z_1, z_2$ ) has the form:

$$\begin{aligned} v_2 > v_4 > v_3 > v_5 > v_1 \\ z_1 > z_2. \end{aligned}$$

Another model of the relationship between the component of the main production of processing enterprises of agribusiness on the basis of crop raw materials ( $v_1, \dots, v_5$ ) and the availability of the main types of plant products ( $z_1, z_2$ ) is as follows:

$$\begin{cases} U_2 = 0,168v_1 + 0,541v_2 - 0,051v_3 - 0,443v_4 - 0,181v_5 \\ V_2 = 0,294z_1 + 0,770z_2 \\ r_{u_2v_2} = 0,888 \end{cases}$$

Analyzing the equation of the model, we obtain that the rating of the indicators by the force of influence on the canonical variables  $U_2, V_2$  has the form:

$$\begin{aligned} v_2 > v_4 > v_5 > v_1 > v_3 \\ z_2 > z_1. \end{aligned}$$

<sup>1</sup> Babenko V.A. (2017): Modelling of factors affecting innovational agricultural activity of enterprises AIC in Ukraine. Scientific bulletin of Polissia, № 1 (9): P. 2, pp. 115-121. .

According to the rating of influence of the indicators on the first and second canonical variables  $U$  and  $V$  in the relationship between the production of the main types of products by the processing enterprises of agribusiness on the basis of crop raw materials and the availability of the main types of crop production, we obtain that the level of production at these enterprises is formed, first of all, due to the following kinds of products of processing enterprises: sunflower oil unrefined ( $v_2$ ); vodka, liqueurs and other alcoholic beverages, malt beer, except for alcohol-free beer and beer with an alcohol content of less than 0,5% ( $v_4$ ); bread and bakery products ( $v_5$ ); and indicators (types of products) having a low rating by force of influence: cocoa-free sugar confectionery products (including white chocolate) ( $v_1$ ); margarine, spreads and food mixtures ( $v_3$ ): That is, the efficiency of production of processing enterprises is linearly connected with the volumes of the raw material base.

Consequently, the statistical tools analyzed in the form of canonical analysis of the relationship between the main components of the processing enterprises of agribusiness on the case of production of the main types of products from crop raw materials and the availability of plant products for it confirms the existence of a mechanism for their interconnection. A fairly significant level of correlation coefficient pairs (0.98 and 0.89) confirms that the interconnections of these factors are very close, which substantiates and confirms the risk factor for the availability of the resource component in the form of agricultural raw materials and the production of processing enterprises.

Thus, having obtained the results, on the basis of the toolset of economic and mathematical modeling, which is grounded on the processing of statistical information of retrospective nature, the evaluation of individual variables and their parameters, the interdependence of the most influential factors of agricultural production is found, and regression models of indicators of the most significant generalizing factors are calculated, characterizing the development of the agrarian potential of the Ukrainian economy. It is a practical toolset for making managerial decisions for forecasting tactical and strategic directions of development of agribusiness of Ukraine and the export of agricultural production to the global food commodity markets.

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## 1.2. IMPORTANCE AND ROLE OF INNOVATIONS IN THE SYSTEM FORMATION OF THE ENTERPRISE COMPETITIVENESS

Saturation of the market of agricultural production leads to increased competition, which increases the importance of innovation and justifies the need for strategic changes in the production process of agrarian enterprises. The introduction of new technologies with the correct organization of labor and control can provide the necessary level of economic sustainability of economic agents of the agro-industrial complex. At the same time, the transition of agro-industrial production to the innovative model of development acquires a special significance. Maximizing the use of the opportunities of the environment, the ability to quickly adapt to constant changes is a key to maintaining an adequate level of competitiveness based on the established steady competitive advantage.

The issue of increasing the competitiveness and keeping their own positions in the market is on the agenda of each manager. In order to ensure stable competitive advantages, that is, those that are difficult to copy by competitors, the agrarian enterprise must constantly make managerial decisions regarding the improvement of activities, including the production process. The improvement of the latter should take place on an innovative basis, ensure the reduction of the unit cost of production, and increase its qualitative characteristics. In this case, it is more expedient to invest in the prospect of activity rather than an attempt to get quick profit. Therefore, the question of choosing an innovative product in the agrarian sector, the correctness of the organization of the process of its implementation, the training of employees, providing information support is quite relevant. This is evidenced by the large number of publications on this issue.

Namely, the main theoretical positions related to the disclosure of the essence and content of innovations, innovative processes and innovation activities in agricultural enterprises were investigated in the works of V. Ambrosov<sup>1</sup>, M. Kropivko<sup>2</sup>, O. Datsiy, M. Zubets, P. Muzyk, P. Sabluk, O. Krisalniy, V. Sitnik, V. Tregobchuk, O. Shkilova<sup>3</sup>, O. Shubravskaya<sup>4</sup>, and others.

The purpose of the article is to justify the importance of introducing innovative agrarian technologies in order to ensure the competitiveness of agrarian enterprises.

In accordance with the provisions of the Single Integrated Strategy and Action Plan for Agricultural and Rural Development in Ukraine for the period from 2015 to 2020, the transition to an innovative way of development has been taken as a basis for state policy<sup>5</sup>. Innovation is recognized as an important factor in ensuring the competitiveness of domestic production and a prerequisite for the sustainable development of rural areas in general.

At present, there is a certain innovation-investment crisis in agricultural production, the outcome of which is the need to find sources of financing for the introduction of innovations. Projects on the introduction of innovative agrotechnologies, taking into account the high cost of modern machines and equipment, as well as capital investment in the processing of agricultural

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<sup>1</sup> Ambrosov, V. Ya., Marench, T. H. (2007): Velykotovarni pidpriemstva yak osnova vprovadzhennia innovatsii [Large trade enterprises as the basis of innovation]. The Economy of Agro-Industrial Complex, vol. 6, pp. 14–20.

<sup>2</sup> Kropyvko, M. F., Orlova, T. S. (2007): Orhanizatsiyni formy innovatsiy u silskohospodarskomu vyrobnytstvi z vykorystannyam potentsialu ahraryoi nauky [Organizational forms of introduce innovations in agricultural production using the potential of agrarian science]. Ekonomika APK – Economy AIC, vol. 7, pp. 11–18.

<sup>3</sup> Shkilov O. V. (2011): Innovatsiino – investytsiine zabezpechennia silskohohospodarsskoho vyrobnytstva ta yohonaslidky [Innovative investment support for agricultural production and its consequences]. Ahrosvit – Agrosuites, vol. 4, pp. 2–5.

<sup>4</sup> Shubravskaya, O. (2012): Innovatsiyniy rozvytok ahraryoho sektora ekonomiky Ukrainy: teoretyko-metodolohichnyy aspekt [Innovative development of the agricultural sector of Ukraine: Theoretical aspects]. Ekonomika Ukrainy - Ukraine economy, vol. 1, pp. 27–35.

<sup>5</sup> Yedyna kompleksna stratehiia ta plan dii rozvytku silskoho hospodarstva ta silskykh terytorii v Ukraini na 2015 – 2020 roky [The uniform complex strategy and the action plan of development of agriculture and rural territories in Ukraine for 2015 - 2020], Ministerstvo ahraryoi poliyky ta prodovolstva Ukrainy. Available at: <http://www.minagro.gov.ua/node/16025>.



products, are usually associated with multimillion-dollar costs. Innovative agrotechnologies are used, above all, in enterprises with large massifs of agricultural land<sup>1</sup>.

Since a large agroholding, given the size of its land bank, has more opportunities for introducing agro-innovations than a small farm.

The State Target Program for Sustainable Development of Rural Territories of Ukraine for the period up to 2020 declares: stimulation of innovative development of agro-industrial production and rural territories, including:

Provision of financial support for the purchase of complex agricultural machinery;

Development and implementation of a special scientific and technical program for substantiating the ways of development of rural territories;

Stimulating the development of the infrastructure of the innovation market in the agroindustrial complex.

The situation in the agrarian market is characterized by increased competition, markets are saturated with a large number of goods within a single commodity group, competitiveness is formed either by reducing the price of sales, such as the implementation of wholesale batch of products, or at the expense of quality higher than that of competitors. This increases the importance of innovation, changes in the production of agrarian enterprises, the implementation of which in the new technologies provides the necessary level of economic development of economic agents of the agro-industrial complex. Competition plays the role of regulator of the rates and volumes of production, prompting the manufacturer to introduce scientific and technical achievements, increase productivity, improve technology, organization of work, etc.

Innovation and competitiveness are interconnected. A well-known scientist in the field of strategic management of competitive behavior – Michael Porter, argued that competitiveness is not inherited and not a consequence of available resources or labor, but is based on the constant use of innovation. Therefore, the value of innovation activity of enterprises is intensifying; there is a need for the formation of innovative potential and the creation of investment funds for development, which will enable to improve existing ones and to master new competitive technologies. Only in this direction, agrarian enterprises will be able to provide an economic<sup>2</sup>.

Innovation means innovation in a variety of industries and spheres of activity, as well as their use in order to increase the efficiency and competitiveness of production and management. In scientific literature, you can find many definitions, which the authors give the term "innovation", depending on the object and subject of their research.

So, according to J. Schumpeter's definition. Innovation should be interpreted as a change in order to introduce and use new types of consumer goods, new production and vehicles, markets and forms of organization in the industry<sup>3</sup>. Other scholars of the problem under investigation disclose innovation as a process in which an invention or idea takes on economic content<sup>4</sup>. Or, innovation is a socio-technical and economic process that is due to the practical use of ideas and inventions leads to the creation of the best in their properties of products, technologies, and if the innovation is oriented towards economic profit, profit, its appearance on the market can bring additional income<sup>5</sup>.

P.A. Fatkhutdinov considers innovation as the result of the introduction of innovation in order to change the object of management and obtain an economic, social, environmental, scientific and technical or other kind of effect. In this case, the innovation refers to the design of the result of

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<sup>1</sup> Maznyev, G., Dudnyk, O. (2015): Planuvannya finansovogo zabezpechennya innovacijnih agrotehnologij v umovah riznogo finansovogo stanu pidpriemstv [Planning of financial support of innovative agro-technologies in the condition of different financial status of enterprises]. Visnik HNTUSG - KhNTUSG Bulletin, Vol.161, p. 61

<sup>2</sup> Dudnyk, O., Minenko, S. (2019): Diagnostika konkurentospromozhnosti v upravlinni pidpriemstvom [Diagnosis of competitiveness in enterprise management]. Visnik HNTUSG - KhNTUSG Bulletin, no 200, p. 211

<sup>3</sup> Shumpeter, J. (1982): Teoriia ekonomicheskogo razvitiya [Theory of economic development]. Progress Moscow, Russia, p.455

<sup>4</sup> Tviss, B. (1989): Upravlenie nauchno-tehnicheskimi novovvedeniyami [Management of scientific and technical innovations]. Translated from English, Ekonomika, 271 p.

<sup>5</sup> Santo, B. (1990): Innovatsiya kak sredstvo ekonomicheskogo razvitiya [Innovation as the economic development funds]. Progress, Moscow, Russia, 295 p.

fundamental, applied research, development or experimental work in any field of activity to increase its efficiency<sup>1</sup>.

No less interesting is the consideration of innovation in the broad sense of the profitable use of innovations in the form of new technologies, types of products, organizational and technical and socio-economic decisions of a production, financial, commercial or other nature<sup>2</sup>. The authors note that innovation is the final result of the creation and development (introduction) of a fundamentally new or modified means (innovation) that satisfies specific social needs and gives a number of effects (economic, scientific, technical, social, environmental)<sup>3</sup>.

In accordance with international standards, innovation is treated as the result of innovation, which has been implemented as a new or improved product introduced on the market, a new or improved technological process used in practice or in a new approach to social services<sup>4</sup>.

The analysis of different concepts of innovation makes it possible to conclude that the essence of innovation is to make changes that make up the functional content of the enterprise's innovation activity. The changes inherent in innovation transformation include the use of new technology, new technological processes or new market supply of production; introduction of products with new properties; use of new raw materials; changes in the organization of production and its logistical support; emergence of new markets<sup>5</sup>.

Innovation – is "the embodiment of new forms of organization of labor and management, covering not only a separate enterprise, but their totality, industry."<sup>6</sup>

Various innovations are applied in agriculture, but this process has a mostly point-oriented character, and innovations themselves are called agronomy. Approaches to the interpretation of this category are shown in Table 1.

Innovation activities are an important part of accelerating the development of agriculture. In the agrarian sector, unlike other spheres, the development of innovation is more slowly, requiring special attention. Innovative processes in agriculture have certain features related to its specificity, namely: the presence of living organisms, seasonality, dependence on climatic conditions and type of soils and increased risks, etc.

The introduction of innovations in the agrarian sector is not an absolute guarantee of increasing the competitiveness of manufactured products and increasing the share of this product on the market.

The development of innovations in agrarian enterprises can be carried out primarily through the interaction of external and internal environments, through the development of the constituent internal environment and available resource potential. In an unstable environment, innovative development is carried out mainly at large enterprises due to its own financial capabilities. Improvement of the situation is possible only with the establishment of a system of mechanisms for attracting foreign financial resources from the state<sup>7</sup>.

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<sup>1</sup> Santo, B. (1990): Innovatsiya kak sredstvo ekonomicheskogo razvitiya [Innovation as the economic development funds]. Progress, Moscow, Russia, 295 p.

<sup>2</sup> Morozov, Yu. (1997): Innovatsionnyy menedzhment [Innovative Management], tutorial, NNGU, N.Novgorod, Russia, p. 186

<sup>3</sup> Sokolov, D.V., Titov, A.B., Shabanova, M.M. (1997): Predposylki analiza i formirovanie innovatsionnoy politiki [Background analysis and formation of innovation policy], GUJeF, St.-Peterburg, Russia, p. 32.

<sup>4</sup> Gohberg, L.M. (1996): Statistika nauki i innovatsiy. Kratkiy terminologicheskiy slovar [Statistics of science and innovation. A short glossary of terms], Centr issledovaniy i statistiki nauki, Moscow, Russia, p.221

<sup>5</sup> Shumpeter, J. (1982): Teoriia ekonomicheskogo razvitiya [Theory of economic development], Progress Moscow, Russia, p.455

<sup>6</sup> Sabluk, P.T. (2001): Pidvyshchennia roli ahraryoi ekonomichnoi nauky u fornuvanni ta realizatsii ahraryoi polityky v Ukraini [The increase the role of agrarian science in forming and realization of agrarian policy in Ukraine], Ekonomika APK – Economy AIC, vol. 3, pp. 3—10.

<sup>7</sup> Shkilov, O.V.(2011): Innovatsiino – investytsiine zabezpechennia silskohohospodarsskoho vyrobnytstva ta yohonaslidky [Innovative investment support for agricultural production and its consequences]. Ahrosvit – Agrosuites, vol.4, pp. 2-5.

Table 1. Modern interpretation of the category "agronomy"

Authors	Definition
Buhvostov Yu. <sup>1</sup>	the result of work, obtained through the application of new scientific knowledge, transforming the process of functioning and development of the industrial and economic system of agroindustrial complex in the direction of increasing its efficiency, stability and systemic quality of relations
Shubravska O. <sup>2</sup>	innovations that are implemented in the agrarian sector and ensure the growth of economic, ecological and social effects there.
Kot O. <sup>3</sup>	systematic introduction of research results into the agrarian sphere leading to positive qualitative and quantitative changes in the characterization of interactions between the biosphere and the technosphere, and also improves the state of the environment
Kravchenko N. <sup>4</sup>	the final result of the introduction of new or improved products (services): technology, technology, variety, breed, organization of production, its management system for the purpose of obtaining different types of effect and ensuring the process of expanded reproduction
Popova O. <sup>5</sup>	innovation that affects directly (or indirectly, within the technological chain) processes involving the person, the machine (equipment, instrument, etc.) and the component of the environment (animal, plant, etc.) of existence which in the natural environment (without human involvement) is impossible or possible with the loss of basic functional characteristics
Yankovska O. <sup>6</sup>	the final result of the introduction of innovation in the field of agriculture (a variety of plants, animal breeds, plant protection products or animals, cultivation technologies, etc.): which led to economic, social, environmental and other species

For agrarian enterprises the introduction of innovations into production is first of all: the digitalization of accounting, the use of drones, precision farming systems, modernization of machinery, etc. The directions of innovative improvement of agricultural production are shown in Figure 1.

<sup>1</sup> Buhvostov, YU.V. (2009): Determiniruyushchee vozdejstvie investitsij na formirovanie ekonomiki innovacionnogo tipa (na primere agrarnogo sektora) [Determining impact of investment on the formation of an innovative type of economy (on the example of the agricultural sector)]. Extended abstract of candidate's thesis. Moskva.

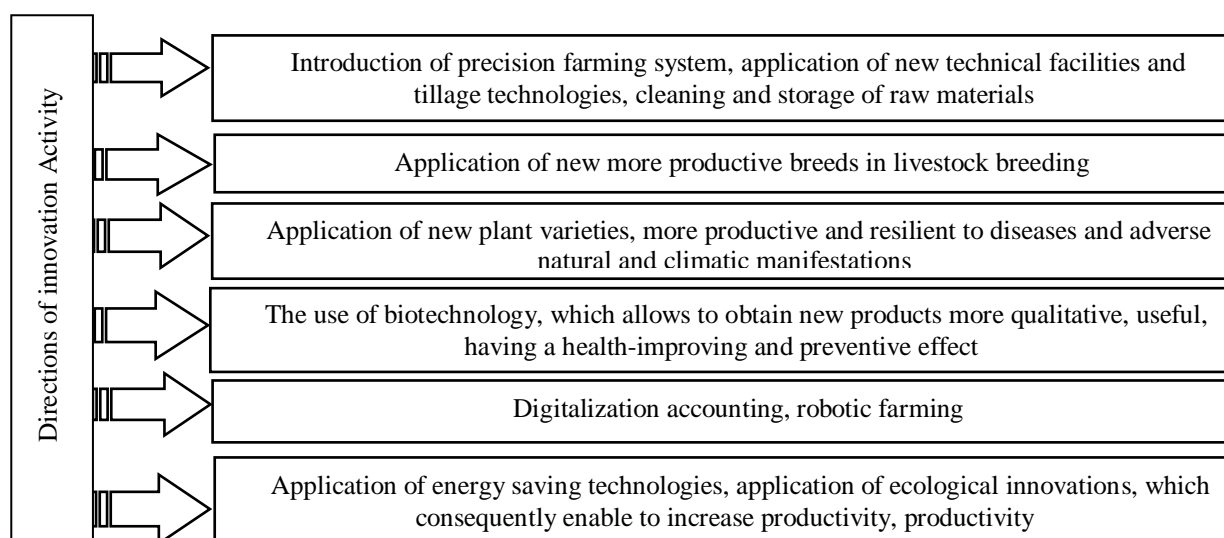
<sup>2</sup> Shubravs'ka, O.V. (2010): Innovatsijni transfor-matsii ahropodovol'choho sektora ekonomiky: svitovi ten-dentsii ta vitchyzniani realii [Innovative transformation of agri-food sector: global trends and local realities]. *Ekonomika i prohnozuvannia - Economy and forecasting*, vol. 3, pp. 90–102.

<sup>3</sup> Kot, O.V. (2008): Teoretychni aspekty innovatsiinoho rozvytku ahrarnoho sektoru ekonomiky ta yoho orhanizatsiiho – ekonomichne zabezpechennia [Theoretical aspects of innovative development of the agrarian sector of the economy and its organizational and economic provision]. *Problemy nauky – Problems of science*, vol.9, pp. 30-37

<sup>4</sup> Kravchenko, N. P. (2011): Obosnovanie prioritnykh innovatsij v rastenievodstve i ocenka ih effektivnosti (teoriya, metodologiya, praktika) [Justification of priority innovations in plant growing and assessment of their effectiveness (theory, methodology, practice)] Extended abstract of candidate's thesis. Majkop.

<sup>5</sup> Popova, O. V. (2007): Voprosy metodologii upravleniya innovatsionnymi processami v APK [Questions of methodology of management of innovative processes in agriculture.] *Upravlenie obshchestvennymi i ekonomicheskimi sistemami - Management of social and economic systems*. Vol.1. doi: [http://bali.ostu.ru/umc/zj2007\\_1.php](http://bali.ostu.ru/umc/zj2007_1.php).

<sup>6</sup> Yankovska, O. I. (2010): Osoblyvosti innovatsii v silskomu hospodarstvi. [Features of innovations in agriculture]. *Ekonomika. Upravlinnia. Innovatsii: elektronne naukovie fakhove vydannia - Economy. Management. Innovations: electronic scientific professional publication*, vol.2(4): URL: [http://www.nbu.gov.ua/e-journals/eui/2010\\_2/10yaoiicg.pdf](http://www.nbu.gov.ua/e-journals/eui/2010_2/10yaoiicg.pdf).



*Fig. 1. Areas of innovative improvement of agricultural production*

Leading experts point out that the issue of improving agricultural production is currently aimed at maximizing control with the use of resources and reducing unreasonable losses, while abroad they are aimed at raising the quality indicators - productivity growth.

By subject and field of application in agriculture it is expedient to allocate biological, technical, technological, chemical, economic, social, managerial, environmental and marketing innovations (Table 2)

*Table 2. Classification of innovations by subject and sphere of application in agriculture*

Classification mark	Type of innovation
Biological	<ul style="list-style-type: none"> <li>- new varieties and hybrids of agricultural plants;</li> <li>- new breeds, types of animals and birds;</li> <li>- creation of plants and animals resistant to diseases and pests, unfavorable environmental factors</li> </ul>
Technical	<ul style="list-style-type: none"> <li>- use of new types of equipment and equipment</li> </ul>
Technological	<ul style="list-style-type: none"> <li>- new technologies of processing of agricultural crops;</li> <li>- new technologies in animal husbandry;</li> <li>- scientific - conditioned systems of agriculture and animal husbandry;</li> <li>- new resource-saving technologies of production and storage of agricultural products;</li> <li>- ecologization of agriculture.</li> </ul>
Chemical	<ul style="list-style-type: none"> <li>- new fertilizers and their systems;</li> <li>- new plant protection products;</li> </ul>
Economic	<ul style="list-style-type: none"> <li>- new forms of organization, planning and management;</li> <li>- new forms and mechanisms of innovative development of the enterprise</li> </ul>
Social	<ul style="list-style-type: none"> <li>- providing favorable conditions for life, work and rest of the rural population</li> </ul>
Innovations in Management	<ul style="list-style-type: none"> <li>- new forms of organization and motivation of work;</li> <li>- New methods of effective personnel management</li> </ul>
Marketing	<ul style="list-style-type: none"> <li>- access to new segments of the market;</li> <li>- Improving the quality of products and expanding the range;</li> <li>- new distribution channels</li> </ul>

Source using<sup>1</sup>.

<sup>1</sup> Trehobchuk, V. (2006): Innovatsiino-investysiiyny rozvytok natsionalnoho APK: problemy, napriamky, mekhanizmy [Innovation and investment development of the national AIC: problems, directions and mechanisms], Ekonomika Ukrainy - Ukraine economy, vol. 2, pp. 4–12.

Across the globe, innovative approaches to soil cultivation are being actively used to increase crop yield and microelement preservation. As a result, it is possible to increase the volume of production and reduce the constant costs per unit of output and compete in the market at the expense of lower selling prices, but such technology may have a negative impact on the quality of the product. A separate variant of crop cultivation technologies is Minni-Till (minimal impact on soil during cultivation): Non-Till (zero tillage) and Strip-till (Straw tillage): Their use allows farmers to preserve the soil from erosion, reduce the consumption of fuel and lubricants, fertilizers, plant protection products, optimize crop rotation and increase the productivity of one hectare of arable land, which will result in a decrease in the cost price of agricultural production and increase its quality.

The availability of the Internet and the proliferation of digital technologies contribute to the development of robotic farming and accounting deductibility. For precision farming based on ground maps, the use of satellites and drones, as well as additional data from the Internet, the latest technology allows you to increase the volume of manufactured products, with the use of less resources and allocated space. The use of such a field monitoring system for one farm costs about 20 thousand UAH per year. For example, Digital Farming Products helps optimize field and field potential in 15 countries worldwide, and Climate Corporation advises and provides technologies that transform field data into information that is needed to increase crop yields, improve efficiency and timely manage risks, agrarians in 21 countries.

The use of unmanned aerial vehicles is already a requirement of the present. With the use of drones, measure the fields, analyze the state of crops, spray the plant protection products, monitor the preservation of crops in the field, etc. However, the cost of one dron starts from 50 thousand UAH and not every farmer can afford these costs. The advantages of using this technology are to ensure that labor costs are reduced to certain jobs, the ability to pollinate fields in the absence of bees, to apply fertilizers and plant protection products to the point, and encourage young people to develop and work in the agrarian sector, since working in a company with high-tech equipment is prestigious.

Also, the achievements of the space industry, in particular using Rapid Eye, CORINE Land Cover (Coordinate Information on the Environment): Global Positioning System (GPS): are also used to monitor fields, yields, amount of required fertilizers, and herbicides.

Quite interesting is the Dutch project VanderSat. Its action is innovative in modern conditions and differs from already well-known systems of space monitoring in fields, namely, it collects data not from satellite images, but using microwave sensors. The advantage of this system is to obtain information in all weather conditions and cloudiness.

The livestock industry is not deprived of innovative solutions. Scientific research is carried out in the direction of raising the productivity of animals, automation of processes and intellectual analysis of the state of animal health. Artificial intelligence captures the basic habits of animals, forms a database of information received, and then when changing behavior makes a conclusion about their health.

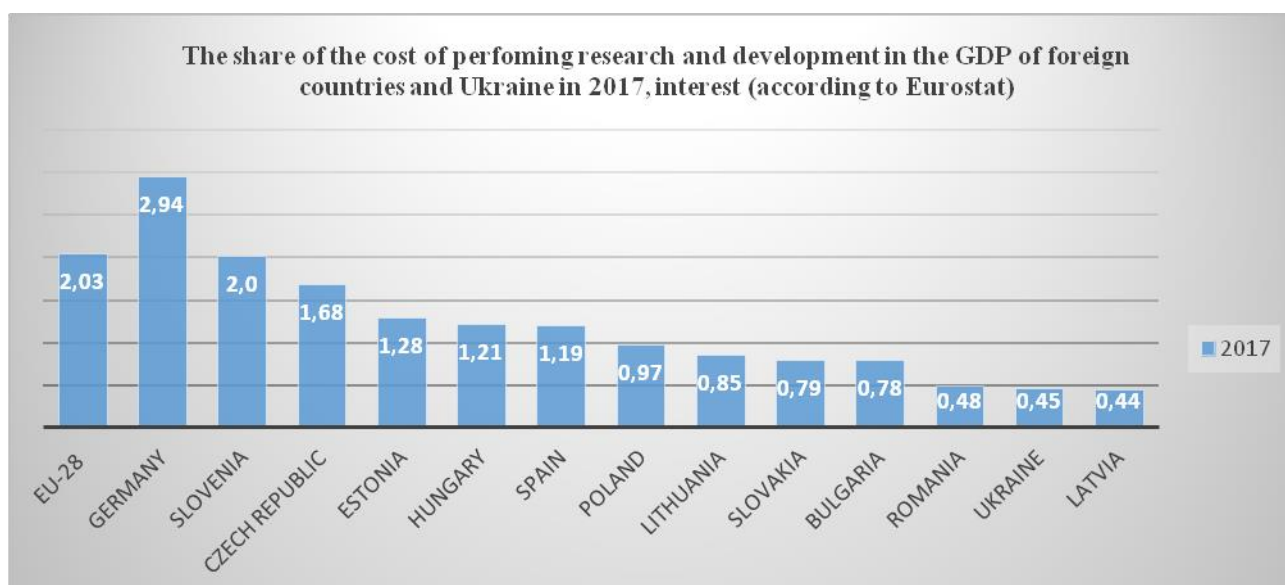
As you can see, there is a sufficient number of innovative projects, both domestic and foreign. One of the main innovators in agriculture in Ukraine is a network of research institutes of UAAS and the Ministry of Agrarian Policy of Ukraine.

At the initiative of the National Academy of Agrarian Sciences of Ukraine and the Ministry of Agrarian Policy and Food with the aim of streamlining the system of scientific support of agricultural production of administrative areas, raising the level of innovation in the agrarian sector of the economy, the effective impact of agrarian science on the competitiveness of agribusiness in each region of Ukraine, centers of scientific support of agro-industrial production (APO)<sup>1</sup>.

In order to compare the state of financing research and development in GDP of foreign countries and Ukraine, we have taken available publicly available data for 2017. As you can see from Figure 2.

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<sup>1</sup> Ministry of Agrarian Policy and Food of Ukraine [Official site of the Ministry of Agrarian Policy of Ukraine]. Available at: <http://www.minagro.gov.ua>.



*Fig. 2. Comparison of the state of financing of research and development in GDP of foreign countries and Ukraine in 2017, %<sup>1</sup>*

The share of research and development expenditures in Ukraine's GDP is only 0.45%, whereas in Germany it is 2.94%.

Scientific researches require annual large-scale financing and comprehensive state support, since this depends on the scientific level and the quality of innovations, which is extremely important in the conditions of dissemination in the Ukrainian market of scientific and technical products of competitive foreign technologies and technologies that are not inferior to their technical and economic parameters. and sometimes even surpass domestic analogues. This is especially true for imports of agricultural machinery, seeds of foreign plant varieties and plant protection products. Financial support for innovation is also required at other stages of the innovation process, as the stimulation of implementation should provide the demand for domestic research. The development of innovation in agriculture in Ukraine is an important direction in increasing the competitive advantages of both an individual company and the country as a whole, since the agrarian sector of economically developed countries is gradually becoming a science-intensive industry.<sup>2</sup>

Ukraine has the potential to intensify innovation. Thus, according to the Global Competitiveness Report in 2017/2018, Ukraine ranked 81th by the Global Competitiveness Index, which is 4 points less than in the previous period. It is worth noting the decline in indicators for all positions except for infrastructure (+3): labor market efficiency (+13) and innovations (+9):

*Table 3. Changes in Ukraine's place in the Global Competitiveness Index*

Indicator	2013/ 2014	2014/ 2015	2015/ 2016	2016/ 2017	2017/ 2018	Change 2017/2018 to 2016/2017
Place of Ukraine by Global Competitiveness Index,	84	76	79	85	81	-4
Including the subdecins:						
Institutions	143	130	132	129	118	-11
Infrastructure	70	68	82	75	78	3
Macroeconomic conditions	112	105	104	128	121	-7
Healthcare and basic education	1	43	n/a	54	53	-1

<sup>1</sup> State Statistics Committee of Ukraine, Statistical information.

<sup>2</sup> Zubets, M.V., Bezuglyi, M.D. (2010): *Ekonomichni aspekty reformuvannya agrarno-promyslovogo kompleksu Ukrainy* [Economic aspects of reform of the agro-industrial complex of Ukraine], Agrarna nauka..

Higher education and professional development	54	40	39	33	35	2
Efficiency of commodity markets	106	112	99	108	101	-7
Labour market efficiency	125	80	87	73	86	13
Development of financial markets	109	107	101	130	120	-10
Technological readiness	106	85	96	85	81	-4
Market Size	36	38	46	47	47	0
Business Excellence	81	99	61	98	90	-8
Innovation	100	81	52	52	61	9

Formed on the basis of the Global Competitiveness Report 2016-2018<sup>1</sup>

In general, the relationship between the innovation activity of an agrarian enterprise and the level of competitiveness can be reflected in the logical chain, presented in Fig. Therefore, the first step in this process is to research the market of innovations and the activities of competitors in order to ensure that the introduction of an innovative product can create a competitive advantage. The next step is to study the investment potential of the company, find sources of funding for innovations, and assess the human potential. In the context of the global necessity of increasing the volume of agricultural production and the need for competitiveness in the foreign market, they choose an innovative product that can increase the output of 1 hectare or 1 head of cattle, while preserving quality or improving it.

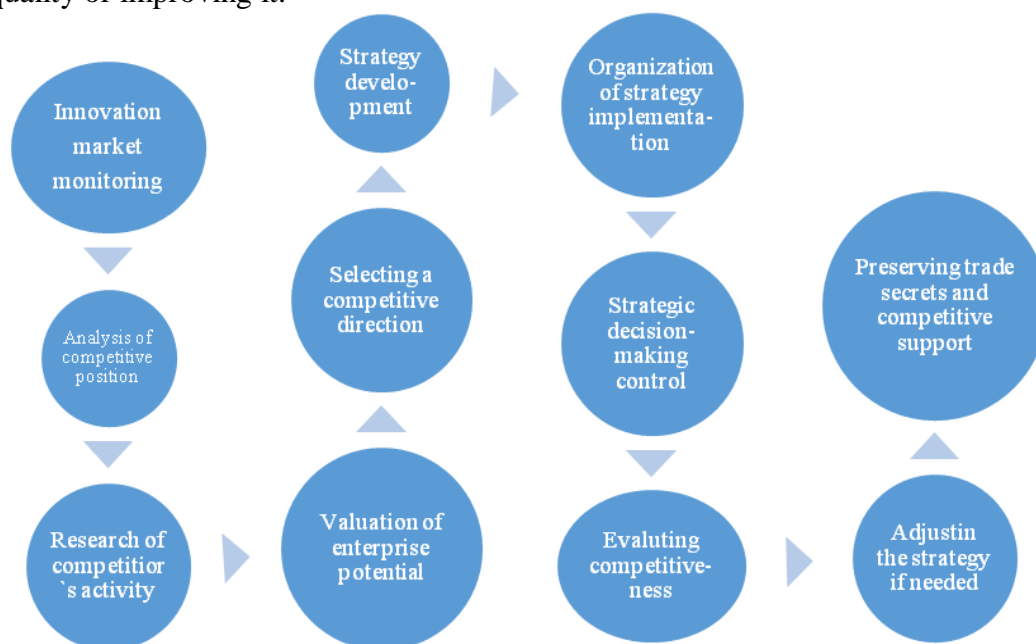


Fig. 3. Interconnection of innovative activity of agrarian enterprise and level of competitiveness

The introduction of such changes is strategic, and therefore should be accompanied by an appropriate functional strategy for innovation development of production, which will correlate with the strategies of competitive behavior of the enterprise and the general strategy of enterprise development. It is imperative to monitor the implementation and implementation of strategic decisions and actions to maintain its own technology from competitors.

In the end, it should be noted that in the immediate and strategic perspective, taking into account the innovation factor should be one of the decisive conditions for the further development of agrarian enterprises. Today, there are a number of theoretical and applied problems that hinder

<sup>1</sup> Global Competitiveness Report 2017–2018/ World Economic Forum. –[Электронный ресурс]. – Режим доступу:<http://www3.weforum.org/docs/GCR20172018/05FullReport/TheGlobalCompetitivenessReport2017%E2%80%932018.pdf>

the effective implementation of innovations, which should encourage the activation of state support and the establishment of partnerships between state structures and the private sector of the economy aimed at ensuring the competitiveness of commodity producers, including on foreign markets, to increase the efficiency indicators of production and economic activity and create opportunities for investment.

Science does not stand still - scientists are offering more and more innovative solutions in agribusiness. The task of the same managers of enterprises in a timely manner to choose for themselves that innovative direction, which is not used by competitors and on this basis create competitive advantages. It is important to remember that timely identified and used innovation can be an opportunity for enterprise development, and hesitation on its implementation or a long stage of implementation or not maintaining its own commercial secrets will lead to the threat of activity and the risk of loss of resources.

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### **1.3. PLANNING OF THE ORGANIZATIONAL STRUCTURE OF THE ENTERPRISE MANAGEMENT IN THE CONDITIONS OF IMPLEMENTATION INNOVATIVE TECHNOLOGIES OF PRODUCTION AND TECHNOLOGICAL CHANGES**

The turbulence of the enterprise environment, strengthening of competition in the target markets requires agrarian enterprises to rethink their policies, encourages on the introduction of strategic management and the maximum using of managerial methods and tools. Effective strategic management will provide a quick response to changes in the market situation, adaptation to various changes in the environment, the formation and maintenance of sustainable competitive advantages, increasing efficiency of activities and the achievement of strategic objectives. In the process of functioning of agrarian enterprises under the influence of numerous environmental factors there is a discrepancy of the existing organizational structure of management to real needs. Organizational discrepancies in such cases become the area of organizational change management. Thus, it is relevant to study the patterns and characteristic features of the designing of the relevant organizational management structures, which are the sphere of management organizational changes in agrarian enterprises in the conditions of the formation of stable competitive advantages on the basis of improving production.

Creating favorable conditions for the sustainable development of enterprises in the present conditions, increasing the speed and scale of changes requires the formation of mechanisms for adapting the internal environment of the enterprise to constantly changing environmental conditions. In this connection arise the relevance of ensuring the sustainable development of the enterprise through management of organizational changes that can be considered as "constantly current changes aimed at transforming the values, aspirations and behavior of people with simultaneous improving of the production, marketing and other processes of the enterprise, methods and tools of their conduct, strategies and systems as a whole" <sup>1</sup>.

Such scientists as V. Gagarsky <sup>2</sup>, J. Gibson <sup>3</sup>, P. Druker <sup>4</sup> engaged in problems of designing the optimal organizational structure of management. For example, P. Druker emphasizes that when it implementing organizational changes it is necessary to take into account that the organizational structure of management should ensure the efficiency of the operation of the enterprise and also he says that the optimal organizational structure has a minimum number of levels of management and the shortest chain of hierarchical links, and at the end the enterprise should have a reserve management personnel and ensure its timely preparation. Issues of effective management of organizational changes were engaged in a large number of Ukrainian and foreign scientists such as D. Anderson, T. Baulina, D. Voronkov, J. Gibson, L. Greiner, J. Kotter, I. Mazur, D. Naipak, S. Roberts, P. Senge, K. Freilinger and others.

The development of an enterprise as an economic system is its direct, logical change, which is expressed in qualitative and quantitative transformations - changes in goals, structure, technology, personnel, the emergence, transformation or disappearance of elements or links between them (figure 1): Thus, organizational changes are an indicator of the development of an enterprise as an open economic system with active elements. At the same time during the development of the enterprise may occur changes in the direction of both progress and regress, which is characterized by the transition from higher to lower (lowering level of organization in the enterprise): Proceeding from this, the management of organizational changes should be aimed at ensuring its progressive development, in which it provides stability of the enterprise to change the factors of influence of the internal and external environment in each separate planning period of functioning.

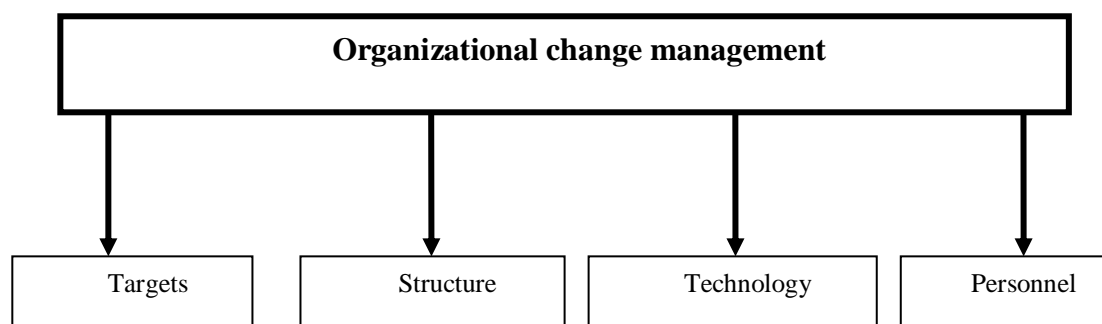
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<sup>1</sup> Lazarenko, L. (2005): Osoblivosti menedzhmentu v umovah organizacijnih zmin/ Visnik Hmelnickogo nacionalnogo universitetu "Ekonomichni nauki", No. 6, Vol.1, pp.19–22.

<sup>2</sup> Gagarskij, V. Optimizaciya orgstruktury: Upravlenie kompaniej. [online]. Available online: <http://www.intalev.ru/>

<sup>3</sup> Gibson, Dzh. (2000): Organizacii: povedenie, struktura, processy, INFRA-M, 200,0, 662 p.

<sup>4</sup> Druker, P., (2000): Management Challenges for the 21st Century M.: Izdatelskij dom «Vilyame», 272 p.



*Fig.1. Sphere of organizational change management*

Enterprises should initiate a process of making changes to meet market demand. They often need to initiate and make changes in order to safe enterprise stability and maintain balanced economic growth and the continuity of development. Change Management is a process that makes it possible for an enterprise to modify any part of its structure to function effectively in an ever-changing environment.

The development of enterprises is a prerequisite for survival in a dynamic competitive environment , and the larger the enterprise, the more employees are involved in its structure, and the more senior managements should pay more attention to the issues discussed in this article.

Future innovation activities activation of agricultural enterprises should be through the innovation technologies introduction which will provide improving their economic activity by improving product quality, reducing costs of production and provide increased efficiency and competitiveness <sup>1</sup>.

It should be noted that the number of large enterprises, i.e. those in which the average number of employees in the reporting period (calendar year) exceeds 250 people and the annual income from any activity exceeds the amount equivalent to 50 million euro, determined by the average annual rate of the National Bank of Ukraine for the last five years is gradually increasing: from 13 enterprises in 2010 to 29 in 2015. At the same time, the average number of employees at one such company decreased by 34% and in 2015 that is 1665 people. The number of medium-sized enterprises is 28% and the average number of employees is 131, which also requires a balanced approach to organizational structure management. At the same time, in our opinion, the definition of the organizational structure of management is exhaustive (OSM) which is compiled on the basis of the proposed definitions presented in the works of Bobrovnik V.M.<sup>2</sup> and Zagorodniuk O.I.<sup>3</sup>, namely, "the system of organized positions, powers, responsibilities and tasks that enable the enterprise to carry out its management, and hence the production and financial activities".

Today, the conditions for the modernization of economic processes are constantly occurring in the economic environment. At the same time, the effective management of the enterprise becomes more and more relevant. A well-known condition for successful management of an enterprise is the introduction of innovations. Innovative activity at the enterprise reveals ways of using existing development opportunities with leveling up of market threats and deficiencies of the enterprise. Innovative activity in agriculture is a complex process of creating new or more productive high-yielding varieties, livestock, elite seeds, high-yielding agricultural machines and aggregates, etc., the introduction of advanced techno-technological, organizational-economic and managerial

<sup>1</sup> Kalinichenko, S., Dudnyk, E., Zaika, S., Gridin, A. (2016): The essential characteristics of innovative agricultural technologies. American Journal of Agricultural Economics Oxford University Press No. 1, Vol. 99, p. 1280-1286.

<sup>2</sup> Bobrovnik, V. (2007): Teoretichni aspekti doslidzhennya kategorii «organizacijna struktura Upravlinnya pidpriemstvom [Theoretical aspects of the study of the category "organizational structure of Enterprise Management]. Visnik Hmelnickogo nacionalnogo universitetu. Ekonomichni nauki - Bulletin of the Khmelnytsky National University. Economic sciences, No.2., pp. 166-170.

<sup>3</sup> Zagorodnyuk, O. (2013): Mehanizm udoskonalennya organizacijnoyi strukturi ta strukturi upravlinnya pidpriemstvom [The mechanism of improvement of the organizational structure and structure of enterprise management]. Suchasni pitannya ekonomiki ta prava - Modern issues of economy and law, No.2, pp.10-15.

decisions, commercialization of modern consumer norms. In order to create favorable conditions for the innovative development of agrarian business in Ukraine, it is necessary to eliminate the financial instability of agriculture, which holds back financial investors. Measures to improve the financial recovery of agricultural market actors should become a priority in the state agrarian policy<sup>1</sup>.

*Table 1. Grouping of agricultural enterprises by number of employees*

Years	Large			Medium			Small		
	Number of enterprises	number of employees employed		Number of enterprises	number of employees employed		Number of enterprises	number of employees employed	
		Total, thousand people	at one enterprise, persons		Total, thousand people	at one enterprise, persons		Total, thousand people	at one enterprise, persons
2010	13	32,9	2529	3075	448	146	45972	137,6	4
2011	15	... <sup>k</sup>	... <sup>k</sup>	2913	... <sup>k</sup>	... <sup>k</sup>	37023	185	5
2012	26	44,5	1711	2774	383,6	138	43123	209,5	5
2013	27	38,8	1438	2553	350,7	137	45246	227,2	4
2014	28	46,6	1666	2267	308,5	136	41885	208,2	4
2015	29	48,3	1665	2200	288,3	131	42668	193,8	4

Source: Formed by the authors according to the data <sup>2</sup>

The use of strategic management tools in introducing innovative production technologies in agrarian enterprises will allow to create adequate organizational structures management (OSM) taking into account labor potential, which will ensure the formation of a productive organizational culture at the enterprise and, as a result, a comprehensive solution to the strategic objectives of the enterprise.

From year to year many new technologies appear. In some cases, they compete with each other. There is nothing unusual about choosing from a large number of technologies that are inherently similar but based on slightly different terminologies. The problem is not the choice of one as opposed to another. For the most part, the problem lies in the fact that each technology has a supporter. If not take properly, the process of choosing new tools and technologies may not be as simple as it should be, even if the choices are guided by adequate criteria.

In many cases, confrontation with changes occurs because senior management or senior officials in the organization have little or no knowledge about new technologies and are afraid of losing their dominant positions based on old management methods in favor of those who are better able to understand specific new technology than they themselves.

Changes in agricultural production technologies are a necessary time requirement aimed at improving production efficiency, reducing costs per hectare of crop or its intensive growth.

We support opinion of O.I. Kondratyuk that said that in conditions of an intensive type of economic growth, which involves the process of concentration of the total costs of living and materialized labor on the same land area to increase output of production and increase the economic

<sup>1</sup> Sahachko, Yu.M. (2018): Imperatyvy innovatsiino-investytsiinoho rozvytku subiektiv rynku produktsii tvarynyntstva [The imperatives of innovation and investment are the development of the subjects of the livestock products market]. *Ukrainskyi zhurnal prykladnoi ekonomiky - Ukrainian Journal of Applied Economics*, no. 3. T4, pp. 41-46.

<sup>2</sup> Diyalnist sub'yektiv velikogo, serednogo, malogo ta mikropidpriyemnictva statistichnij zbirnik [Activities of subjects of large, medium, small and micro-enterprises statistical collection] (2015): Available online: <http://www.ukrstat.gov.ua/>

efficiency of production, it is necessary to increase production, and improve its quality not only due to attraction of additional resources, but also better use of accumulated potential on the basis of systematic development of scientific achievements and progressive technical solutions<sup>1</sup>.

The essence of intensive technology is to optimize the conditions of cultivation at all stages of the growth and development of plants, the placement of crops after better predecessor, the cultivation of intensive varieties, the application of fertilizers in terms of planned yield, the use of an integrated system of plant protection against weeds, pests and diseases, soil protection from erosion<sup>2</sup>.

In modern national agriculture, the experience of introducing technologies of minimal tillage and precision agriculture "Mini-till", "No-till", "Strip-till" accumulates, which reduce the technological influence on the soil, allow to save as much as possible its natural useful properties, reduce the amount of fuel used, to reduce the emission of pollutants into the atmosphere in comparison with traditional technologies. Along with the implementation of intensive technologies, considerable attention should be paid to improving seed production, reducing the cost of harvest in the cultivation, harvesting, refining, storage and processing of grain, sustainable development of new organizational forms of management, and increased material interest of workers<sup>3</sup>.

Changes in production technology are strategic in nature and therefore the process of managing the implementation of the strategy for improving production should be systemic character and include the consistent implementation of all constituent measures:

- a) organizational- personnel support for the implementation of the strategy and strategic management in general, the creation and organization of the relevant organizational structures of the OSM;
- b) the creation and organization of the financial- economic mechanism for ensuring the implementation of the strategy;
- c) socio-psychological support of the strategy, introduction of strategic thinking in the implementation of organizational culture;
- d) informational-analytical support.

When designing the organizational structure of management it is important to cover all tasks, to identify and mutually agree on each management body of the system of functions, rights and responsibilities. And effective management is a necessary prerequisite for the maximum possible in these conditions of impact from positive organizational-technological changes. It is in this that the key role is played by the systematicity of the measures being taken.

The optimal organizational structure of management can be considered only when it has the following characteristics: simplicity; flexibility; reliability; economy. With the first two characteristics everything is clear, but "reliability" requires some comments. Reliability is the probability that the organizational structure of management will function in a given mode during a given period according to the established conditions of the environment. Reliability consists of three components:

- faultlessness, as a property of an organizational management structure to directly maintain efficiency in real conditions of functioning;
- reproducibility, as a property of an organizational management structure that allows management personnel to quickly eliminate the failures in its functioning;
- readiness, as a property of the organizational structure of management, that allows it to perform the functions assigned to it at any moment.

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<sup>1</sup> Kondratyuk, O. (2005): Pidvishennya konkurentospromozhnosti virobnictva silskogospodarskoyi produkciyi [Increasing the competitiveness of agricultural production]. *Ekonomika APK - AIC economy*, No. 10, pp. 109-112.

<sup>2</sup> Moldovan, L., Shubravska, O. (2015): Investicijni prioriteti u sferi rozvitku agropromislovogo virobnictva ta mehanizmi yih realizaciyi [Investment priorities in the development of agro-industrial production and mechanisms for their implementation]. *Ekonomika Ukrayii - Economy of Ukraine*, No. 74, pp. 78-87.

<sup>3</sup> Komarova, I. (2013): Komponenti strategichnogo upravlinnya investicijnoyu diyalnistyu silskogospodarskih pidpriemstv [Components of strategic management of investment activity of agricultural enterprises]. *Agroinkom - Agroinkom*, No. 10-12, pp. 15-22.

Table 2. Types of organizational structures of enterprise management

Types of OSM		A characteristic feature	Advantages	Weaknesses
VERTICAL	Line organizational structure	the concentration of the entire complex of management functions and the development of managerial actions in one control chain, characteristic of small enterprises	Unity and clarity of orders, consistency of actions of subordinates, personal responsibility of the head for the final results of the activities of department	The need for universal qualification, overload of information, non-compliance with modern production requirements
	Functional organizational structure	It is assumed that each management body (or executor) specializes in the implementation of certain types of management activities (functions): Execution of directions of a functional body within its competence is mandatory for production department.	Allows linear managers to expand their powers of strategic management of production by providing a number of functions to specialized units. Possibility of centralized control of strategic results. Correspondence of the structure of the selected strategy.	Violation of the principle of united command, lack of mutual understanding and unity of action between employees of functional services of different production sites of the enterprise, transfer of responsibility for profits to higher levels of management.
	Linear-functional organizational structure	Combined structures provide such work events in which linear management should make decisions and control, and functional - to advise, inform, organize, plan	Correspondence of the structure of the chosen strategy of activity, high competence of specialists, combination of the principle of specialization management with the principle of unity of management.	Resistance to any changes in the enterprise, excessive development of the vertical component of the control system
	Divisional organizational structure	Created by delegation of authority decentralized level divisions on certain grounds for goods by consumers, by geography, etc.	rapid adaptation to environmental changes, decentralization of management, accelerated decision-making, better coordination, end-result targeting, etc.	the duplication of management functions in each division, the growth of management costs, the conglomeration of production and the loss of synergy, the attempts of divisions to get full Independence can lead to the collapse of the enterprise

HORIZONTAL	Matrix organizational structure	an organic combination of the target orientation to achieve concrete results, with the preservation of clearly expressed functional, temporal and territorial aspects of the activity	creation of organizational conditions for accelerating project achievement, high flexibility, dynamic structure, rapid strategic response, effective coordination of works and optimization of resource use, innovation. Reducing the load on the top management.	violation of unity in management, difficulties in the implementation of balance of power and responsibility, increase of managerial staff, socio-psychological problems associated with the creation of a more efficient working group, etc.
	Project organizational structure	along with permanent functional units create temporary project groups	maximum customer orientation, high degree of flexibility and speed response to market demands and effective use of personnel in terms of its professionalism.	the limited scope of application, the risk of lack of projects, and, consequently, the instability of work with staff in terms of its load capacity.
NETWORK	Networking organizational structure	are formed to interact with individual elements of a turbulent environment in order to better utilize its capabilities, as well as to effectively restructure the internal environment in order to better use its strengths in order to achieve strategic goals.	the form of communications is more flexible and this is different from the hierarchical, where interconnections are regulated by means of internal rules, instructions, etc.	Complications of coordination of functions between network participants, high risk of activity and degree of dependence

The experience of many enterprises shows that at the stage of strategy implementation, the greatest problems arise when it carrying out changes in the organizational structure. The analysis of the conformity between the existing organizational structure and the structure being implemented to answer the following questions:

- 1) How existing organizational structure will promote or prevent to strategy?
- 2) At what levels should the tasks be solved in the process of implementing the strategy?

To begin, consider the main types of structures, table 2.

The listed organizational structures do not provide complete correspondence between the enterprise strategy and the structure of the table. 3. Therefore, to effectively support the implementation of the chosen strategy, some organizations use two or more types of organizational structures of management.

*Table 3. Interconnection of changes in OSM and production-technological changes*

Strategy of formation of competitive advantages	Organizational and technological changes	Recommended type OSM
Strategy of differentiation	Diversification	Matrix organizational structure
	Create a new product for existing technology	Matrix organizational structure
	Implementation of innovative technologies for the production of new types of products	Advisory organizational structure
Focusing strategy	Implementation of innovative technologies of production of already mastered product	Networking organizational structure
Cost minimization strategy	Implementation of resource-saving technologies	Functional organizational structure
	Extensive expansion of production	Divisional organizational structure

Unfortunately, the successful transition to an optimal organizational structure does not mean that it will continue to function successfully and give the return that the management and staff of the organization expected. The optimal organizational structure of management will be able to justify all expectations as to its maximum possible positive impact on the functioning of the organization only if a number of organizational and economic conditions are created, and among them the most crucial is the availability of the appropriate organizational and economic mechanism (management mechanism): The internal organizational and economic mechanism is a well-ordered arrangement of the functioning of the entire system of internal variables. In order for this mechanism to be adequate to the conditions for the functioning of entrepreneurship, it must, above all, be enriched at the expense of new levers, instruments, forms, motives and controls. This is the first. Secondly, it is necessary to provide appropriate proposals between its constituent blocks, which should be five:

- block of organizational and legal instruments and tools (hierarchy);
- block of economic instruments and instruments (market);
- a block of social levers and instruments (social responsibility of organizations);
- block of psychological instruments (culture);
- a block of ethical (moral) levers and instruments (ethics of organizations);

In what way is the modern organic management structure formed? Is it the result of effective management or natural process? Both options are possible. In the first case, the process of organizational design will practically not be different from the traditional algorithm and will include



the standard stages: the formulation of goals and objectives, the definition of the composition and location of units, their resource support (including the number of employees); the development of regulatory procedures, documents, regulations, fixing and regulating forms, methods, processes, carried out in the organizational management system. The methods used can be: the method of analogies, expert-analytical, the method of structuring goals, organizational modeling. The complexity and flexibility of modern structures requires detailed analysis and definition of system goals, thought-out allocation of organizational units and forms of their coordination, development of relevant organizational documents. The main problem is the search for a balance between the formalization and the freedom of procedures of organizational processes. Possible and reverse variant: formation of the structure from the bottom to the top, when the organizational system is formed evolutionary way. In this case, the structure grows from simple elements until a dedicated subsystem is allocated, which will assume the functions of coordination. In the future, this subsystem can attract new elements and create new hierarchical levels. Each of the subsystems of the organization gets its share of the common goal, and the managing subsystem implements goals correction in the process of their implementation through the feedback mechanism. At the same time, each of the subsystems has and implements its own goals. Consistency of general and individual goals determines the effectiveness of such an organizational system<sup>1</sup>.

Proceeding from this, one can formulate the basic requirements for the optimal OSM, which assumes that managers of all levels possess

- 1) the desire and opportunities to find reserves to improve the efficiency of their organization;
- 2) readiness to deliberately risk, seeking change and improvement;
- 3) the ability to think and act as think and act entrepreneurs.

Thus, to transform an organization during the implementation of the strategy, it is necessary to implement the following measures:

- create a sense of the need for change, recognition and discussion of the causes of the current state;
- to form a powerful coalition that has the ability to manage change and motivate it;
- to promote the organization's perspectives, using all possible means to explain the mission and strategies, to train employees in a new style of work, for example, of a formed coalition;
- implement the necessary changes, remove obstacles to them, and, if necessary, change the organizational structure and culture of the organization;
- plan and implement short-term victories, identify and encourage employees who have achieved certain results at work;
- plan more significant results, encourage employees who can achieve such achievements, and involve new projects, technologies, and specialists;
- to adopt new approaches, to track all the best that appears in competitors, to lead the market.

These measures can be supplemented by other, not less important, but to achieve the desired result, they should be implemented in accordance with the conditions in which the organization operates.

It should be noted that the issue of changes in the organizational structure of management remains relevant academic research on this subject. The conducted researches of the types of organizational management structures have shown that they do not provide complete correspondence between the strategy of the enterprise and the structure. Therefore, to effectively support the implementation of the selected strategy of some organizations use two or more types of organizational structures of management.

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<sup>1</sup> Kralia, V.G. (2016): Rozvy`tok pidxodiv do proektuvannya organizacijny`x struktur upravlinnya pidpry`yemstv ta yix ob'yednan` [Development of approaches to the design of organizational structures of enterprise management and their integrated]. Visnik HNTUSG - KhNTUSG Bulletin, No. 171, p.124-134. - Available online: [http://nbuv.gov.ua/UJRN/Vkhdusg\\_2016\\_171\\_15](http://nbuv.gov.ua/UJRN/Vkhdusg_2016_171_15)

The process of designing an organizational management structure needs to be considered as an important component of an enterprise strategy to ensure sustainable development and investment attractiveness, achieved through the implementation of new ways to combine resources to ensure a higher level of their use. Enterprises are constantly searching for innovations in order to stay competitive in the market is quite dynamic. In order to create favorable conditions for the innovative development of entrepreneurial activity in Ukraine, it is necessary to eliminate the financial instability that constrains financial investors. Measures to improve the financial health of market players should become a priority in state policy.

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#### 1.4. RISKS IN THE PROCESS OF MANAGEMENT OF COMMODITY SPECIALIZATION OF AGRICULTURAL ENTERPRISES

Specialization of production gives to every enterprise the opportunity to grow those crops that can be produced most effectively in the corresponding natural and climatic conditions and the presence of socio-economic factors. It is historically objective and logical process and is determined by the social division of labor, which arises because of the contradiction between unlimited growth of needs and limited production resources. Placement and specialization are the main forms of social division of labor. Scientifically grounded distribution of agricultural production by natural and economic zones and areas allows the most effective use of natural resources, that is, to achieve high efficiency of the use of productive resources.

The emergence of specialization is associated with the development and division of tools, which directly affects the differentiation of labor resources. Differentiation of labor activity takes the form of the introduction of an effective and productive system of division of labor. It has a hierarchical principle on its basis and in the scale of society includes two hierarchical levels:

- higher level - the general division of labor, which involves the division of labor in large numbers (industry, agriculture, construction, etc.);
- lower level - a partial division of labor into separate branches, which involves the division of labor activities into species and subspecies (division of agriculture into crop production, animal husbandry, poultry farming, etc).

The sectoral structure of agrarian enterprises is not sustainable. The value of industries is constantly changing under the influence of natural, economic and social conditions. The factors of formation of specialization in agrarian enterprises include the following groups:

- *economic* (level of development of production, infrastructure, labor supply);
- *natural and climatic* (natural zone of production placement, type and quality of soils, amount of precipitation and duration of frost-free period during the year);

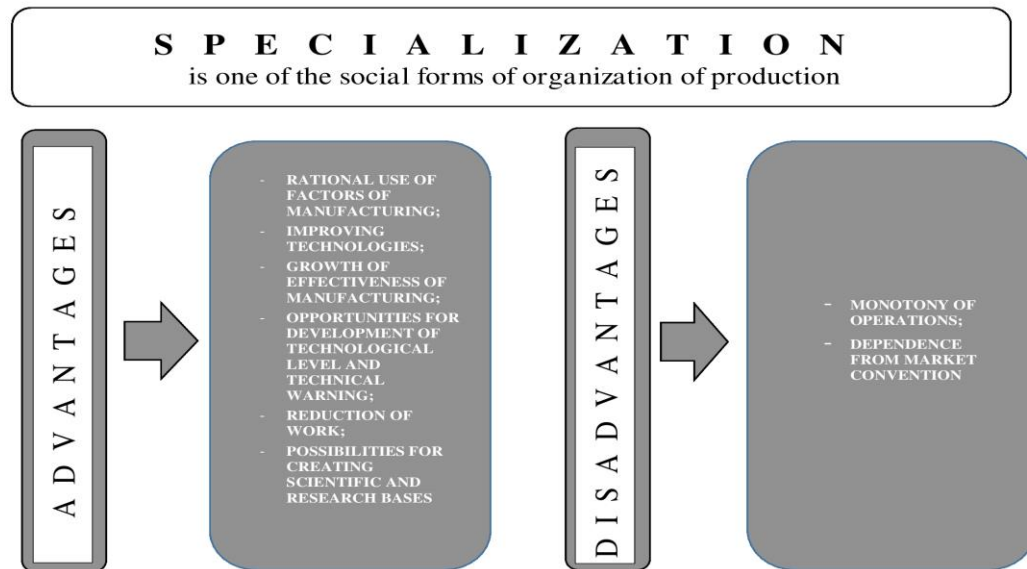
The obstacle for progressive transformations in the organizational system of economic activity is the national outdated views on the newest processes of concentration, specialization and integration of commodity production, the formation of powerful regional and interregional world markets with the intensification of competition, and especially high-tech and high-tech goods of the post-industrial era.

The experience of the developed countries testifies that the deepening of the specialization of agricultural production and the growing importance of cooperation and agro-industrial integration objectively require the departure of narrow-sector and departmental regulatory systems. An important element in the development of the agrarian sector is the renewal of management of its subdivisions, the deepening of the specialization and structuring of the economy of commodity livestock taking into account the necessary coordination between sectors and spheres of agro-industrial complex. To do this, a new agrarian policy based on land reform, the development of a multi-faceted economy in the countryside, ensuring the priority of the agro-industrial complex in the national economy, and addressing the social problems of the village on the basis of deepening the social division of labor.

Today in Ukraine, along with large farms of mostly collective ownership (joint-stock companies, limited liability companies): medium-sized private companies (agro-firms, peasant farms) and small farms of peasants operate. When choosing the production direction of the enterprise and its level of specialization, management and owners of agricultural enterprises are not always guided by scientifically substantiated recommendations, guided by the desire to get the maximum profit, concentrate on the production of only highly liquid products. In our opinion, the specialization of agricultural enterprises should be in advance thought out, coordinated with the strategic plan of the enterprise, to correspond to its goals and mission. Formation of specialization and production direction of the enterprise should be based on the nature-climatic conditions, on the basis of detailed study of the market of agricultural products. In developed countries, agricultural

producers make preliminary contracts, which largely follow the production direction of their management.

Undoubtedly, the specialization of agrarian production has its advantages and disadvantages (Figure 1): But, despite a greater number of benefits, a number of risks in the management of specialization should not be ignored (Table 1):



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*Fig. 1. Advantages and disadvantages of specialization*

*Table 1. Risks in the process of managing commodity specialization of agrarian enterprises*

RISKS IN THE PROCESS OF MANAGEMENT OF COMMODITY SPECIALIZATION OF AGRICULTURAL ENTERPRISES	
<i>Major groups</i>	<i>The character of manifestation</i>
➤ Market risks	Selling prices, supply / demand ratios, cyclicity of the market and the course of its development
➤ Financial risks	Lending, insurance, accumulation of capital
➤ Legal risks	Normative-legal support, the threat of raiding
➤ Natural and climate risks	Climate change, variability of weather conditions, seasonal characteristics
➤ Material and technical risks	Technical and technical re-equipment
➤ Agrotechnological risks	Observance of crop rotation, depletion of soils
➤ Personnel risks	Seasonal agricultural production, labor migration
➤ The only mechanism of state regulation for many branches of agriculture	The appropriate direction of specialized production needs targeted unique support

*Market risk* in determining the product specialization for agrarian enterprises is the dynamic transformations that occur in the process of production and sales of products. Monitoring of market trends, peculiarities of its functioning, the nature and market conditions, factors of influence, causal relationships allows to study, analyze and form the information and analytical base for determining the priority directions of production of agricultural enterprises.

Market risks are manifested in the detailed practical analysis of the following parameters:

1. Proposal - volume, structure, dynamics; production and raw material potential; elasticity of the offer.
2. Demand - level of satisfaction, peculiarities of changes; market capacity; elasticity.
3. Proportionality of the market - the ratio of demand and supply; the ratio of markets, means of production, goods and services; commodity structure; market segments; regional market structure.
4. The course of market development - sales volumes, prices, inventories, investments.
5. Fluctuations, stability, cyclicity of the market.
6. Regional features of the state and development of the market.

According to the State Statistics Service<sup>1</sup>, the production of main types of agricultural products and the average prices of its implementation in Ukraine over the past 10 years have undergone significant changes under various factors (Table 2): To account for market risks, such information reveals the overall dynamics and gives the manufacturer the opportunity to determine the effective level of specialization.

*Table 2. The production of agricultural products and its average sales prices in Ukraine over the past 10 years*

Years	Grain and leguminous crops	Oil seed	Sugar beet	Potatoes	Vegetable crops	Fruit and berry crops	Farm animals (live weight)	Milk	Eggs
1	2	3	4	5	6	7	8	9	10
<i>Production volume, thousand tons; eggs - million pieces</i>									
2009	46028	6364	10068	19666	8341	1618	1917,4	11609,6	15907,5
2010	39271	6772	13749	18705	8122	1747	2059,0	11248,5	17052,3
2011	56747	8671	18740	24248	9833	1896	2143,8	11086,0	18689,8
2012	46216	8387	18439	23250	10017	2009	2209,6	11377,6	19110,5
2013	63051	11051	10789	22259	9873	2295	2389,4	11488,2	19614,8
2014	63859	10134	15734	23693	9638	1999	2359,6	11132,8	19587,3
2015	60126	11181	10331	20839	9214	2153	2322,6	10615,4	16782,9
2016	66088	13627	14011	21750	9415	2007	2323,6	10381,5	15100,4
2017	61917	12236	14882	22208	9286	2048	2318,2	10280,5	15505,8
2018	70057	14165	13968	22504	9440	2571	-	-	-
<i>Average selling prices, UAH per ton; eggs - per thousand pieces</i>									
2009	778,6	1734,6	218,9	1154,3	2059,9	1877,4	10184,3	2065,1	377,4
2010	799,0	2086,2	409,9	1298,6	1790,0	1892,4	10362,9	1888,8	403,9
2011	1120,9	2942,6	478,5	2131,0	2551,6	2419,8	10797,1	2938,7	470,6
2012	1374,2	3312,0	516,0	2032,8	2139,1	3175,9	11967,2	3041,6	521,5
2013	1547,1	3584,0	426,8	1139,6	1956,6	2707,1	13456,9	2662,2	627,0
2014	1299,8	3087,5	397,8	1860,9	2354,0	3010,8	12901,3	3364,0	656,7
2015	1801,4	4062,8	494,2	2173,6	2514,3	2429,1	15736,9	3588,4	782,4
2016	2912,1	7531,5	788,6	2436,3	3903,4	5894,5	21966,2	4347,3	1333,2
2017	3414,0	8656,1	848,6	2631,8	3924,2	5863,8	22468,0	5461,8	1108,7
2018	3771,6	9132,0	825,3	3296,3	4136,1	8766,6	31838,4	7234,0	1145,9

<sup>1</sup> State Statistics Service of Ukraine [Electronic resource]. Access mode: <http://www.ukrstat.gov.ua/>

Table 3. State financial support of agroindustrial enterprises for Ukraine in 2018 <sup>1</sup>

Regions	Financial support of the activities in the agroindustrial complex by reducing the cost of loans	Financial support for the development of farms	State support for the development of hops, the laying of young gardens, vineyards and the supervision of them	State support of livestock sector	State support of producers of agricultural products (technique)	Total for programs
Cherkassy region	19282,7	10354,9	5463,7	140348,4	34351,0	209800,7
Chernihiv region	7865,3	8446,8	2595,6	138336,4	57372,4	214616,5
Chernivtsi region	6764,7	3302,6	29916,7	12443,9	8149,6	60577,5
Dnipropetrovsk region	8219,4	10179,4	46518,3	75796,7	44317,7	185031,4
Donetsk region	2435,6	3463,5	5061,1	22546,7	23085,3	56592,3
Ivano-Frankivsk region	9474,1	3672,3	9033,5	68944,3	5147,4	96271,6
Kharkiv region	10060,4	10182,1	9641,8	76949,9	42717,9	149552,0
Kherson region	5761,9	9169,3	13123,7	32089,0	37396,9	97540,8
Khmelnitsky region	24760,6	10841,8	34748,3	136326,6	46824,5	253501,8
Kievskaya region	19954,9	4709,9	41723,8	118419,2	34734,6	219542,4
Kirovogradskaya region	7860,7	10539,1	0,0	48459,4	37700,6	104559,8
Lugansk region	4755,5	4646,9	0,0	22804,4	39942,4	72149,2
Lviv region	6314,0	8415,6	36467,1	41459,2	13687,0	106343,0
Nikolaev region	7722,1	13600,8	10645,6	29796,4	58410,2	120175,1
Odesa region	8292,1	12135,5	11344,8	25181,4	68274,6	125228,5
Poltava region	20548,6	14300,4	2024,1	77784,4	44181,8	158839,2
Rivne region	9147,2	4315,2	710,6	32374,0	15816,0	62363,0
Sumy region	9431,1	7974,6	716,2	34902,3	56150,3	109174,5
Ternopil region	28639,5	7122,4	11454,3	90641,4	35431,1	173288,6
Transcarpathian region	321,3	3835,9	34165,8	11978,5	1 217,7	51519,2
Vinnitsia region	10389,0	19753,4	55609,8	997578,9	114669,7	1198000,8
Volyn region	18521,7	10838,3	12421,7	66138,2	11426,1	119345,9
Zaporozhye region	12412,2	8160,3	2561,3	23061,9	48920,7	95116,4
Zhytomyr region	6978,5	4346,0	15718,6	68933,2	33014,8	128991,1
Total	265913,0	204306,9	394964,5	2393294,8	912940,2	4171419,4
Number of companies that have taken advantage of the program	723	5100	171	154074 (including individuals)	7 043	-

*Financial risks* are faced by agrarian enterprises in the process of determining the production direction most acutely. The problems of finding start-up capital, its further accumulation, insurance and lending activities need to be neutralized in many respects.

<sup>1</sup> Ministry of Agrarian Policy and Food of Ukraine [Electronic resource]. Access mode: <https://minagro.gov.ua/ua/pidtrimka>

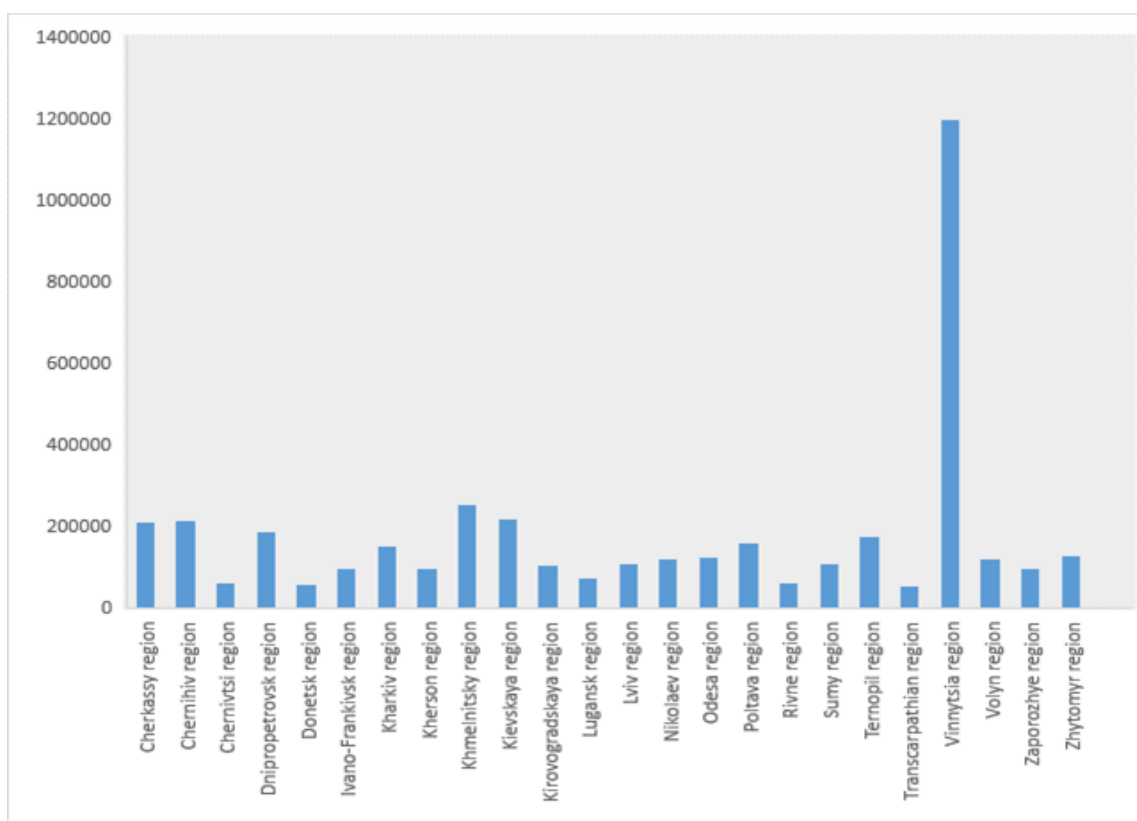


Fig. 2. The direction of state financial support in the field of agroindustrial complex by regions <sup>1</sup>

Agri-production is very sensitive to the cost of lending. The main reason behind the growing role of credit funds in the formation of financial resources of agrarian enterprises is the excessively high cost of this source of financing. In Ukraine interest rates on loans for agricultural enterprises consistently exceed the level of cost of credit resources for the economy as a whole.

Special forms of direct and indirect state support play a role in providing access to the crediting resources of the agrarian enterprises. The system of agricultural lending in Ukraine, under the current economic conditions, is characterized by a combination of market and preferential lending mechanisms. The preferential mechanism for lending to farmers is provided by special programs aimed at increasing the efficiency of agrarian production, increasing it provided that the production process is continued and the country's food security is ensured. Participants of the market of bank credit resources in the agricultural sector of the economy are banks (lenders) and agricultural enterprises (borrowers): Each participant in the credit market defends his own interests: lenders are interested in selling the most expensive loans, and borrowers - the cheapest to attract them. If for the enterprises of the agrarian sector banks are the most influential sellers of credit resources, for banks agricultural enterprises - only a part of the total number of subjects of lending.

In the course of lending to agrarian enterprises, banks put forward specific conditions:

- experience in the agrarian market;
- availability of a source of loan repayment;
- stability of money movement;
- Participation in a loan project at own expense.

In the process of determining the production direction the state should be the mainstay of solving financial problems of agrarian enterprises. Despite the fact that over a significant period of time most of the financial institutions called partnership with the agrarian sector one of the most

<sup>1</sup> Ministry of Agrarian Policy and Food of Ukraine [Electronic resource]. Access mode: <https://minagro.gov.ua/ua/pidtrimka>

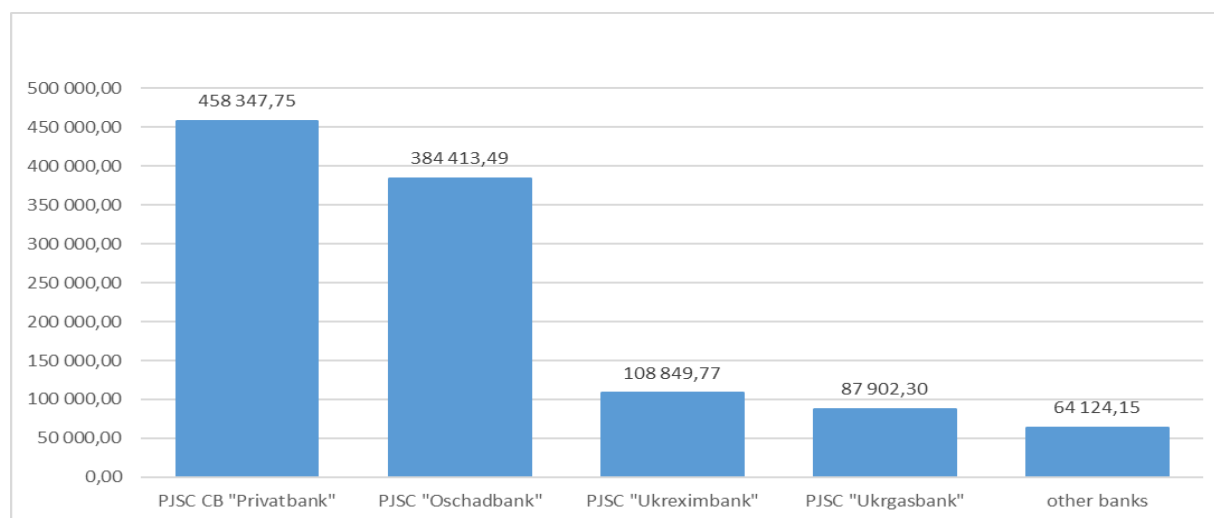


risked, more than 20 banks signed the Memorandum with the Ministry of Agrarian Policy and Food of Ukraine on the issues of implementation of state support to agricultural producers in the year 2019 (Table 2).

*Table 4.* The list of banks that signed the Memorandum with the Ministry of Agrarian Policy and Food of Ukraine on the implementation of state support to agricultural producers <sup>4</sup>

№	Name of bank	Date of signing the Memorandum
1	Public joint-stock company Joint-Stock Bank "Pivdennyi"	23.03.2018
2	Public Joint Stock Company "Bank SICH"	23.03.2018
3	Public Joint-Stock Company "First Ukrainian International Bank"	23.03.2018
4	Public Joint-Stock Company Joint-Stock Bank "UKRGASBANK"	02.04.2018
5	Public Joint-Stock Joint-Stock Commercial Bank "INDUSTRIALBANK"	02.04.2018
6	Public Joint-Stock Joint-Stock Commercial Bank "PrivatBank"	23.03.2018
7	Public Joint Stock Company "State Export-Import Bank of Ukraine"	03.04.2018
8	Public Joint Stock Company "Raiffeisen Bank Aval"	10.04.2018
9	Public Joint Stock Company "State Savings Bank of Ukraine"	03.04.2018
10	Public Joint Stock Company "KREDOBANK"	18.04.2018
11	Public Joint Stock Company "MTB BANK"	24.04.2018
12	Public Joint Stock Company "MetBank"	23.05.2018
13	Public Joint Stock Company "Credit Agricole Bank"	24.05.2019
14	Public Joint-Stock Company Joint-Stock Commercial Bank "Lviv"	19.11.2018
15	Joint-Stock Company "Piraeus Bank ICB"	12.12.2018
16	Joint-stock company "Motor-Bank"	20.02.2019
17	Toscombank Joint-Stock Company	20.03.2019
18	Joint-Stock Company "OTP Bank"	14.05.2019
19	Joint-stock company "BANK ALLIANCE"	21.05.2019
20	Joint-Stock Company "EAST-UKRAINIAN BANK" GRANT "	08.04.2019
21	Private Joint-Stock Company "BANK VOSTOK"	04.07.2019

The implementation of state support to agricultural producers in 2018 in the context of banks is shown in Figure 2.



*Fig. 2.* State financial support of agri-industrial enterprises in 2018 in the context of banks

Given the existing budget constraints and problems with the implementation of the program for cheapening bank loans, it is necessary to develop alternative financing mechanisms for the agrarian sector (leasing, factoring, etc.): as well as to promote modernization of own bank lending in order to strengthen its target character. In this perspective, promising forms of lending to the agrarian sector, in our opinion, are project and mezzanine financing, as well as pre- and post-export financing. Project financing in Ukraine is widespread in Ukraine with a small number of financial institutions. It involves long-term lending of investment projects, under which the object of collateral for a loan are the proceeds from the project. Despite the complicated procedure for issuing a loan, the advantage of project financing lies in a lower level of risk of lending to a financial institution and, consequently, a lower cost of credit resources for a borrower.

Choosing the direction of its activities, the company automatically falls under the influence of *legal risks*. The legal regulation of the specialization of agricultural production is carried out through the legal norms of both general and special laws and by-laws. According to Article 20 of the General Law "On Enterprises in Ukraine", Article 1 of the special Law "On the Priority of Social Development of the Village and the Agro-Industrial Complex in the National Economy" and Article 13 of the Special Law "On Collective Agricultural Enterprise", agricultural enterprises independently determine the directions and structure of agricultural production, and, consequently, his specialization and volume.<sup>8</sup>

The necessity of systemic legal influence on the management of commodity specialization of agrarian enterprises is determined by the following factors:

- appropriate use of natural resources;
- ensuring unification in the characteristics of the received products of the specified species;
- observance of principles and requirements of technologies;
- product quality control;
- the relationship between the elements of the mechanism of management of commodity specialization of agrarian enterprises;
- support of target sales of manufactured products and regulation of normative-contractual relations in this context.

Indirectly generalize these factors can be noted in the methods of legal influence on the production and economic activities of agrarian enterprises. Generating element in such a generalization are state bodies, which, through laws, regulations, regulations, guidelines or standards regulate production and economic activity. Enterprises, taking into account the established legal field, as well as under the influence of economic and natural and climatic factors, evaluate their capabilities and determine the structure of gross output, receive the appropriate level of specialization and production direction.

The category of legal risks should also include the threat of raider attacks. Unfortunately, in recent years such an illegal form of ownership by agrarian enterprises and property rights has become a widespread phenomenon. Raiding as a type of legal risk for agribusiness is a consequence of imperfect regulatory and legislative framework. If the company has an effective structure of gross output, high profitability, then it is very likely to become an object for raiders.

The existing legislative mechanism does not provide the owners of agrarian business with adequate protection, therefore they have to protect themselves independently by internal preventive measures. Attention should be paid to inspections of controlling bodies, requests from other enterprises, shareholders, participants. It is necessary to analyze the basic and circulating assets, provide protection of real estate, build an effective organizational structure, maintain and control the mode of observance of information confidentiality.

*The natural and climatic risks* in the process of management of commodity specialization are climate change, variation of weather conditions, seasonal characteristics (heat, frost, high or insufficient rainfall): as well as the interaction of the selected agricultural production with the natural-climatic zone. This risk category is the most unpredictable among others.

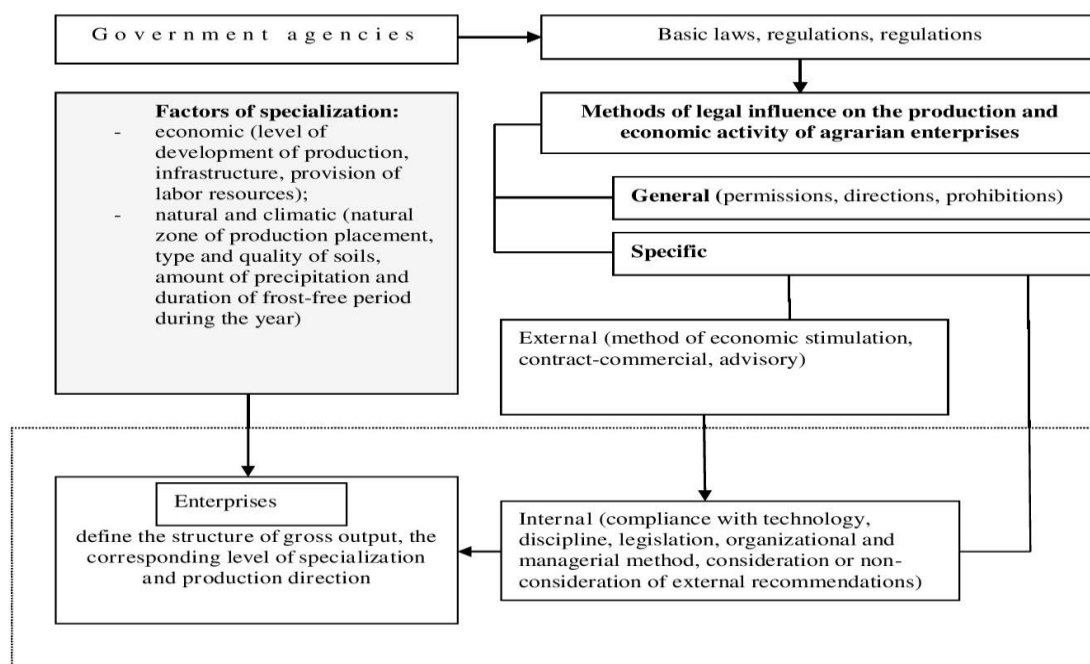


Fig. 3 The influence of the legal field on the formation of the industrial direction of enterprises and their specialization <sup>1,2,3</sup>

An enterprise can influence it on its own by adjusting technology, but in this case it may encounter *agrotechnological risks*. They include non-compliance with agrarian technologies due to lack of equipment, plant protection products, mineral fertilizers, qualified personnel, non-fulfillment of agricultural production technologies, and the risk of soil fertility is characteristic only for agricultural production, which is becoming increasingly relevant due to non-implementation of crop production technologies, excessive or insufficient introduction of mineral and organic fertilizers, non-compliance with crop rotation, viruses ends crops that deplete the earth.

Technological and technological re-equipment of the enterprise in determining the production direction is the cause of *material and technical risks*. Updating machines, equipment and technological lines involves not only the modernization of various components of these systems, but also their internal harmonization. In many fields of agrarian production, there is a renewal of the machine-tractor park, updated technologies of cultivating crops are being introduced, modern methods of primary processing of products, their storage and transportation are used. Techno-technological modernization of business entities in the agrarian sector is to a certain extent supported by the state. Thus, agricultural enterprises and farms can purchase certain types of equipment on the basis of financial leasing. It is also expected to compensate for the budget funds of a part of the funds for the construction and reconstruction of livestock complexes.

Agro-technological and logistical upgrades can not be implemented without proper human resources supply to the agrarian sector. To the process of managing commodity specialization it is necessary to add a personnel component, and as a consequence, *personnel risk*, in the case of a shortage of labor and scientific and intellectual resources. Today, Ukraine has a generally complex labor force situation. Seasonal agricultural production causes temporary unemployment. It is one of the reasons for the outflow of labor abroad, as well as its intra-regional displacement. This is risky

<sup>1</sup> Stativka, A.M. (2015): *Pravove rehulyuvannya vyrobnytstva silskohospodarskoyi produktsiyi: navchalnyy posibnyk* [Legal regulation of agricultural production: a textbook]. – Kharkiv: Yurayt, 272 p.

<sup>2</sup> Kaninsky, P.K. (2005): *Spetsializatsiya silskohospodarskykh pidpryyemstv* [Specialization of agricultural enterprises]. Monohrafiya – monograph. K.: NNTS IAE, 348 p.

<sup>3</sup> Yanchuk, V.Z. *Ahrarne pravo Ukrainy* [Agrarian Law of Ukraine]. Electronic resource. Access mode: <http://uristinfo.net/agropravo/6-2010-12-17-08-43-10.html>

for specialized agricultural enterprises. Their operation can not be effective without proper stable personnel support.

Maximally neutralize the impact of these risks is possible not only through internal organizational methods, but also external influence of the state. Taking into account the diversity of production lines and levels of specialization of domestic enterprises, the only mechanism of state regulation is also risky. It is necessary to differentiate the aggregate of agrarian enterprises by their production characteristics and needs, and on this basis develop unique programs of support for each type of specialized agricultural enterprises. Investigation of risks in the activities of agrarian enterprises is a necessary process, as the financial and economic state of the country is unstable. Agrarian enterprises in their activities meet certain risks and try to overcome them.

To be effective, companies should try to avoid risks, but to find methods for risk management, assess risks and develop ways to overcome them, so companies must adapt to the changing external and internal environment in order to reduce their risk. In order to maintain positions in the market, competitiveness must be able to effectively minimize the risks in the activities of the agrarian enterprise.

Effective management of commodity specialization and improvement of the system of interconnections between all participants in agrarian production can take place under the condition of creating a system of risk neutralization. The basis of the process of making managerial decisions in determining the product specialization, taking into account the risks, are as follows:

- the production direction of the enterprise should correspond to the strategy, mission and goals set by the enterprise;
- compliance of the structure of production with market conditions;
- taking into account the climatic conditions in order to ensure the highest performance of production (productivity of crops, productivity of animals);
- conformity of production line of the enterprise to regional and national programs of economic development;
- ensuring environmental safety and environmental management.

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## 1.5. STRATEGIC MANAGEMENT PRINCIPLES OF THE USE EFFICIENCY OF LAND RESOURCES OF FARM HOUSEHOLDS OF UKRAINE

Agriculture is characterized by specific properties associated with the biological nature of production processes and the mandatory availability of the land resources to implement such processes. Efficient use of land is the basis for the formation of the agricultural production efficiency over the short and long terms and its rational use is a basis for increasing the competitiveness of agricultural products and ensuring sustainable development of agricultural producers. In the course of agrarian reform in Ukraine, whose purpose was to make a farmer a full owner and user of the land, farms have developed significantly. The efficiency of farmland use is low in comparison with the use of the agricultural enterprise land, and the land use is ecologically unbalanced. All the above-mentioned factors deteriorate the land quality and cause environmental damage, as well as reduce the competitiveness of the products in the commodity market.

According to the Agriculture Development Strategy for the period up to 2020, approved by the Cabinet of Ministers of Ukraine dated October 17, 2013, № 806-p, one of the strategic goals of agricultural development is the rational use of agricultural land. Farms are considered economic entities of great socio-economic importance for rural communities. Creation of the necessary organizational, legal and financial prerequisites for the development of farms, increase of their competitiveness, efficient, intensive and environmentally safe use of land resources is the goal of the Concept of Farms and Agricultural Cooperatives Development for 2018-2020, approved by the Cabinet of Ministers of Ukraine dated September 13, 2017, No. 664-p.

The study of the land importance in the economy of farms has shown that its place and role are widely defined. In the economic sphere, it is defined as an economic entity, the material base of production, the allocation of productive forces and a source of human needs; in the ecological sphere, it is a natural object, ecosystem, and a biological resource; in the social sphere, it is a property object, a place of residence and a basis of spiritual production. Implementation of land relations in these spheres allows us defining land as a land capital, which consists of natural, intellectual and property capital<sup>1</sup>, and the main task of the farmer is the expanded reproduction and the increase of value of the capital.

Land as an object and means of labor has basic properties as follows: it is a unique product of nature, it has a permanent location, it is limited in space, it is territorially extended and configurable, it has fertility and the ability to self-restoration and it is an indispensable variable resource in agricultural production. The main property of the land as a means of production is the soil fertility, which is the ability to provide plants with the required amount of nutrients in plant uptake form, as well as water and air throughout the growing season<sup>2</sup>. Besides, soil fertility is a feature of the land, which makes it possible to call it a productive force. The transformation of the potential soil fertility into economic property occurs under the influence of objective agricultural laws. The main ones are the law of indispensability and equivalence of plant life factors, the law of the minimum, the law of optimum and maximum, the law of the combined effect of plant life factors, the law of soil fertility, the law of soil fatigue (decline fertility): the law of crop rotation, and the law of returning (balance) of nutrients in the soil.

We consider the management of farmland resources a well-structured open process-oriented system, consisting of economic, environmental, regulatory, administrative, economic, innovation and managerial, and land management and technological subsystems. The subject of this system, that is, the control subsystem, is the farms and state authorities of all levels that carry out the implementation of the state land, agrarian and tax policies, supervise compliance with the norms of rational use of land resources. The object of management is differentiated by the rate of the essence of the definition of «land», covers the land and its fertility, land resources and their capitalization,

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<sup>1</sup> Tretyak, A.M. (2011): *Zemel'nyy kapital: teoretyko-metodolohichni osnovy formuvannya ta funktsionuvannya* [Land Capital: theoretical and methodological bases of formation and functioning]. SPOLOM, Lviv, p.520.

<sup>2</sup> Korchynska, O.A. (2015): *Orhanizatsiino-ekonomichne rehuliuвання rozshyrenoho vidtvorennia rodiuchosti* [Organizational and economic regulation of the extended reproduction of soil fertility]. Kyiv: NNTs «IAE», p.388.

land and its investment attractiveness, agricultural land (by type) and efficiency of its use. The basis for the farmer managerial decision-making is the economic interests of landowners, land users, the state and the society. The subject of management is the processes of rational and effective organization of land use, which are implemented based on economic, and organizational and economic mechanisms.

Unfortunately, the monocultural agricultural production, irrational land use of most farms, where owners neglect the above-mentioned laws of agriculture, cause the land degradation, soil depletion and decline in the fertility. The restoration of land means the reproduction of its productive power – fertility, which is greatly complicated by the impossibility of replacing the latter with artificial. Depending on the nutrient balance, the type of restoration can be reduced (balance is negative): simple (zero balance) and extended (positive balance): The first type of restoration is characteristic for the anthropogenic type of economic development, predatory use of land resources. Other types of restoration refer to the sustainable development of agriculture, where the environmentalization and care for future generations is the dominant principle.

The management of the use efficiency of the land resources of farms should strategically be oriented towards the formation of sustainable agro-landscapes, which provide sufficient level of agricultural production efficiency to finance expanded reproduction and satisfaction of the farmer's interests. The land management system of farms should be based on the following main principles: consistency; purposefulness; balance of interests of the farmer, landowners, the state and the society when using land resources; payment for the land use; sustainable development of agricultural land use; rationality and economic feasibility of the use of land resources; the priority of protecting land as the main means of production; responsibility and informativity. The functions of land management of farms are planning the use of land resources; forecasting the use of land resources in the short, medium and long term; organizing the use of land resources; motivating and controlling the rational use of land resources. At the state level, in addition to those specified, the functions of coordination, accounting, analysis and regulation of farmland land use should also be distinguished.

The management of farmland resources is based on economic and organizational and economic mechanisms. These mechanisms include a set of measures aimed at implementing strategic objectives of land policy in terms of rationalizing farmland land use, ensuring landowners and land users rights, establishing fair land payments, introducing sanctions for deteriorating land quality, and economic incentives for enhanced fertility reproduction of soils. At the farm level, the instruments of the organizational and economic mechanism are the optimization of land use, territorial organization of land resources use, farmland land management, and management of farming value chains. According to the research of scientists of the Institute of Natural Resources and Sustainable Development of the National Academy of Sciences of Ukraine, the mechanism for managing the land resources capitalization consists of institutional (regulatory, informational, infrastructure of land use formation): intellectual and social (instruments of intellectual, moral and ethical influence and the scientific provision of the land management system): organizational and land management (land management, planning and institutional and structural tools): and financial and economic (economic incentives, guarantees, instruments of market circulation, credit and mortgage, fiscal and budget, and innovative tools) of sub-mechanisms<sup>1</sup>. In other words, it is supposed to manage and regulate the main components of land capital.

The progressive movement of the Ukrainian economy towards the market is invariably accompanied by the transformation of economic mechanism, the change of forms and methods of management. In agriculture, such transformations were marked by the reform of collective farms and state farms and the creation of various private agricultural enterprises, farms on their basis, the expansion of private farms, etc. The study showed that the essence of Ukrainian farming began to form in the early 1920s in the period of the «new economic policy»<sup>2</sup>. The first farms in Ukraine

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<sup>1</sup> Khvesyk, M.A. (2014): Kapitalizatsiia pryrodnykh resursiv [Nature resources capitalisation]. DU IEPSR NAN Ukrainy, Kyiv, p 268.

<sup>2</sup> Kachynskyi, V. (1925): Molodaia porosl fermerstva v ukraïnskoi stepy [Young growth of farming in the Ukrainian

were established in 1988, and by the time of independence, 332 farms had been registered, with only 24.7% of operative farms<sup>1</sup>. During 1990-1995, the number of operative farms increased 424.1 times, the area of farmland in their ownership and use in 393.2 times. However, as M. Shulsky pointed out, these farms were formed on the basis of the collective and state farm system, and their rapid development was not caused by objective factors, but by the authorities' desire to accelerate land share and reform of agriculture<sup>2</sup>. In 1996-1999, the process of establishing farms was suspended, and in some regions, the process of reestablishing farms started, which was due to their low efficiency and small size. The intensification of farm development in 2000-2005 contributed to the acceleration of agrarian and land reform, and land share. A certain decrease in the number of operative farms in 2008-2013 is due to a combination of factors of agrarian transformation, regulation, and consolidation of their areas, competition with large agricultural enterprises, integration and globalization processes, etc. In general, in the period from 1990 to 2017, the number of farms increased 416.3 times, the area of agricultural lands and arable land in their ownership and use 2290.1 and 8912.1 times, the average size of the farmland by area of agricultural land 5.5 times, arable land 21.4 times, respectively<sup>3</sup>.

By 01.01.2018, 80.6% of farms had been registered as the type of economic activity «Agriculture, Forestry, and Fishery», with the largest share of farms specializing in the cultivation of grain, legumes, and oilseeds<sup>4</sup>; 975 farms identified their main activity in animal husbandry, 260 in fishing.

In spite of the strategic role in the development of the industry and a large number of established farms, their place in agriculture of Ukraine remains insignificant so far (Table 1).

*Table 1. The position of farms in the agrarian economy*

The share of farms, %	Years					
	1995	2000	2005	2010	2016	2017
In the total number of operating agricultural enterprises	66,0	60,4	73,3	73,5	70,6	74,9
In the total area of the land of agricultural enterprises and households						
– agricultural land	1,9	5,6	9,9	11,8	12,2	12,5
– arable land	2,2	6,3	11,3	13,5	13,8	14,3
The share of employees in the total number of the population employed in the agricultural sector	n. d.	1,6	3,3	3,2	3,4	3,4
In the production of agricultural products (to the volume of production of all categories of farms)	0,8	2,1	4,6	6,1	8,7	8,7
– crop production	1,1	3,1	6,7	8,7	11,2	11,3
– livestock products	0,3	0,4	0,7	1,6	2,0	2,0
In total production						
– grain	1,5	5,1	10,7	12,0	13,4	14,0
– sunflower seeds	3,0	10,0	15,6	17,8	19,4	19,3
– meat (in slaughtering weight)	0,3	0,5	0,9	2,3	2,4	2,5
– milk	0,2	0,5	0,7	1,0	1,8	1,9

*Note.* n.d. – no data.

*Source:* the authors calculated according to the State Statistics Service of Ukraine<sup>5</sup>.

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steppe]. Khozyaystvo Ukrainy-The economy of Ukraine, No.6, p. 388.

<sup>1</sup> Haidutskyi, P.I. (2005): *Ahrarna reforma v Ukraini* [Agrarian reform in Ukraine]. Kyiv: NNTs «IAE», p. 424.

<sup>2</sup> Shulskyi, M.H. (2004): *Fermerstvo: Problemy stanovlennia i rozvytku* [Farmers: problems of formation and development.]. Lviv: Svit-Lviv: The world, p. 392.

<sup>3</sup> State Statistics Committee of Ukraine (2015): Statistical information, available at URL: <http://www.ukrstat.gov.ua>.

<sup>4</sup> State Statistics Committee of Ukraine (2015): Statistical information, available at URL: <http://www.ukrstat.gov.ua>.

<sup>5</sup> State Statistics Committee of Ukraine (2015): Statistical information, available at URL: <http://www.ukrstat.gov.ua>.

The level of intensity of farmland use is high. In particular, in 2017, 99.0% of the land was already used for economic purposes, 95.1% was cultivated. Concurrently, in 1995-2017, the level of forest areas of the territories decreased by half, and compared with 1995 by 3.3 times, indicating the ecological destabilization of agricultural landscapes (Table 2).

*Table 2. Intensity and ecological efficiency of the use of farmland resources*

Indicator	Years						
	1995	2000	2005	2010	2013	2016	2017
Level of economic use, %	97,4	97,6	98,6	98,8	98,8	98,9	99,0
Level of tillage of agricultural lands, %	90,9	92,3	93,3	95,1	95,2	94,9	95,1
Level of forest areas, %	1,0	0,8	0,4	0,3	0,3	0,3	0,3
Employment (per 100 hectares of agricultural land): people.	n. d.	3,3	3,6	2,3	2,2	2,2	2,1
Energy security (per 100 hectares of agricultural land): kW	53,1	72,4	118,2	120,7	139,5	152,6	157,5
Share in total crop area, %							
– grains and legumes	68,4	59,0	65,1	60,7	60,3	55,7	54,9
– technical crops	23,1	28,4	29,3	35,8	36,7	42,1	43,2
Coefficient of environmental sustainability	0,186	0,177	0,133	0,154	0,154	0,155	0,154
Coefficient of environmental stability	0,190	0,182	0,148	0,166	0,166	0,167	0,166
Coefficient of anthropogenic load	3,881	3,889	3,782	3,929	3,930	3,930	3,931

*Note.* N. d. – no data.

*Source:* the authors calculated according to the State Statistics Service of Ukraine<sup>1</sup> and the State Geo-cadaster of Ukraine.

The structure of cultivated farm areas, which generally does not meet the rational norms of scientifically grounded alternation in the crop rotation, is environmentally ineffective. In turn, unbalanced nature leads to a significant deterioration of the ecological and landscape parameters of land resources. During 1995-2017, the ecological sustainability ratio decreased by 17.2%, ecological stability – by 12.6%, the level of anthropogenic load – increased by 1.3%, which characterizes agricultural landscapes as unstable and degrading. The consequence of irrational use of land resources of farms is the fatigue of soils, erosion processes, etc., which ultimately lead to a decrease in the efficiency of management and quality of products.

Based on the comprehensive analysis carried out, it was established that the overall efficiency of the use of land resources of farms of Ukraine in 2000-2017 has significantly increased. This was mainly due to the intensification of crop production and the growth of energy security of production, the introduction of innovative agro technologies and reducing labor costs. The volumes of production of crop production per 100 hectares of agricultural land in 2017, compared with 2000, increased 3.3 times, livestock production – three times. Net income from sales of products and services per 100 hectares of farmland increased 9.2 times, profit – 20.2 times (Table 3).

*Table 3. Economic efficiency of the farmland use*

Indicator	Years						
	2000	2005	2010	2013	2015	2016	2017
Yield capacity, c / ha							
– grains and legumes	15,8	22,0	21,9	32,1	33,4	39,2	37,1
– sunflower seeds	10,2	11,1	13,4	20,9	20,8	21,2	18,8
– sugar beets (factory)	186,3	238,1	250,8	376,0	422,3	486,4	499,1
– potato	128,9	150,8	159,5	225,5	163,2	182,6	189,2
– vegetable	78,2	136,5	159,2	288,2	316,3	307,9	348,4
– fruits and berries	11,5	17,3	49,7	58,5	69,8	91,3	69,4

<sup>1</sup> State Statistics Committee of Ukraine (2015): Statistical information, available at URL: <http://www.ukrstat.gov.ua>.



<i>Produced per 100 hectares of agricultural land</i>							
Meat (in slaughtering weight): cwt	3,8	3,9	11,1	14,3	12,0	12,7	12,7
Milk, cwt	31,4	26,3	26,1	35,2	40,8	41,4	42,5
Wool, cwt	0,4	1,9	3,0	2,2	1,6	1,2	1,2
Honey, kg	3,8	3,2	5,0	3,9	2,8	2,8	2,4
Eggs, thousand pcs. (per 100 hectares of grains and legumes)	0,8	1,0	3,5	2,8	3,3	4,2	3,8
Agricultural products (at constant prices in 2010): ths. UAH	144,9	223,3	278,9	428,9	435,3	498,1	474,8
– crop production	134,6	210,8	252,7	397,5	404,4	466,6	444,1
– livestock products	10,3	12,5	26,2	31,4	30,9	31,5	30,7
Net income from the sale of agricultural products and services, thousand dollars USA	4,8	16,5	31,7	49,2	45,6	48,4	44,3
Profit from the sale of agricultural products and services, thousand dollars USA	0,5	2,5	7,7	8,0	15,0	15,1	10,1

*Notes.* Recount of the net income and mass of profit from the sale in US dollars was made based on the average annual rate of the National Bank of Ukraine for leveling the inflation.

*Source:* compiled and calculated by the authors according to the State Statistics Service of Ukraine<sup>1</sup>.

The most profitable, moreover, are products of plant growing, including sunflower seeds and grain, as well as fruits, berries, and grapes. The production and sale of livestock products are, in most cases, unprofitable, except for farm milk, poultry, and rabbits, as well as chicken eggs, which are in demand on some retail rural and urban markets.

One of the deterrent factors for improving the social efficiency of farms is the low wages of their workers. In 2017, the average monthly nominal wage of farmworkers was twice lower than the average level, indicating farmers' inability to fulfill the social role of effective employers in the rural area.

The most important factor in the development of farmland use is the mechanism of land lease. During 2003-2017, the share of the leased agricultural land increased by 1.7 times, and large and medium-sized farms operate fully on the leased land. However, unlike agricultural enterprises, the rent for land shares in farms, especially in small ones, was significantly lower: in 2017, its level was only 4.9% of the normative monetary value<sup>2</sup>. Among the forms of rent, the natural one was prevailing, which lead to the ineffectiveness of the institution of lease land relations of farms.

According to the theoretical and methodological basis and the current state of management of the use of farmland resources, a conceptual structural model of the organizational and economic mechanism was developed (Fig. 1):

Organizational and economic mechanism of the farmland use should be grounded on the following principles<sup>3</sup>: historicism; consistency; purposefulness; coherence of interests of the entities of the mechanism; adaptability to changing environmental conditions; maximum implementation of the farm potential; innovation; rational use of land resources; emergence; stimulation of the development of farming and preservation of the rural areas.

Currently, one of the main reasons for the decline in the efficiency of farmland use is the non-observance of scientifically justified crop rotation and the rules for the introduction of organic (in 2016, they were applied in 3.2% of farms in the area of 56.9 thousand hectares): mineral (the share of fertilized crop area in 2003-2016 did not exceed 45%) and micro fertilizers (according to expert

<sup>1</sup> State Statistics Committee of Ukraine (2015): Statistical information, available at URL: <http://www.ukrstat.gov.ua>.

<sup>2</sup> Hutorov, A.O., Groshev, S.V. (2018): Rozvytok zemelnykh orendnykh vidnosyn v aharnomu sektori ekonomiky [Development of the land lease relations in the agrarian sector of economy]. Agrosvit – Agroworld, vol. 17, pp. 3-11.

<sup>3</sup> Groshev, S.V. (2019): Orhanizatsiino-ekonomichniy mekhanizm upravlinnia efektyvnosti vykorystannia zemelnykh resursiv fermerskykh hospodarstv [Organization and economic mechanism for managing the efficiency of land use of farms]. Biznes inform – Business Inform, No 1, pp. 208-214.

estimates, 3-5% of farmers use them): According to the calculations, in total for 2012-2016, the farmland use in Ukraine had not received 5.95 t / ha of humus arable, 9.3 centners / ha of nitrogen, phosphorus and potassium, 10.6 c / ha of calcium and magnesium, which is equal to a loss of about 68.7 thousand UAH / ha of soil potential and 3.1 thousand UAH / ha of the cost of the short supply of agricultural products.

The solution to this problem in the system of the organizational and economic mechanism is in introducing administrative liability of land users for the irrational use of arable land. We propose determining the amount of compensation by the formula (1):

$$P_{\epsilon} = HFO_p \cdot III \cdot \Phi \cdot S / 100, \Phi > \bar{\Phi}; P_{\epsilon} = 0, \Phi \leq \bar{\Phi}, \quad (1)$$

where  $P_{\epsilon}$  is the amount of compensation, UAH;  $III$  is the size of the fine, calculated on 1% reduction of the soil quality parameter,%;  $\Phi$  is the actual value of the level of soil fertility reduction for a particular parameter,%;  $\bar{\Phi}$  is the permissible level of the soil fertility reduction for a particular parameter,%;  $S$  is the area of land, ha.

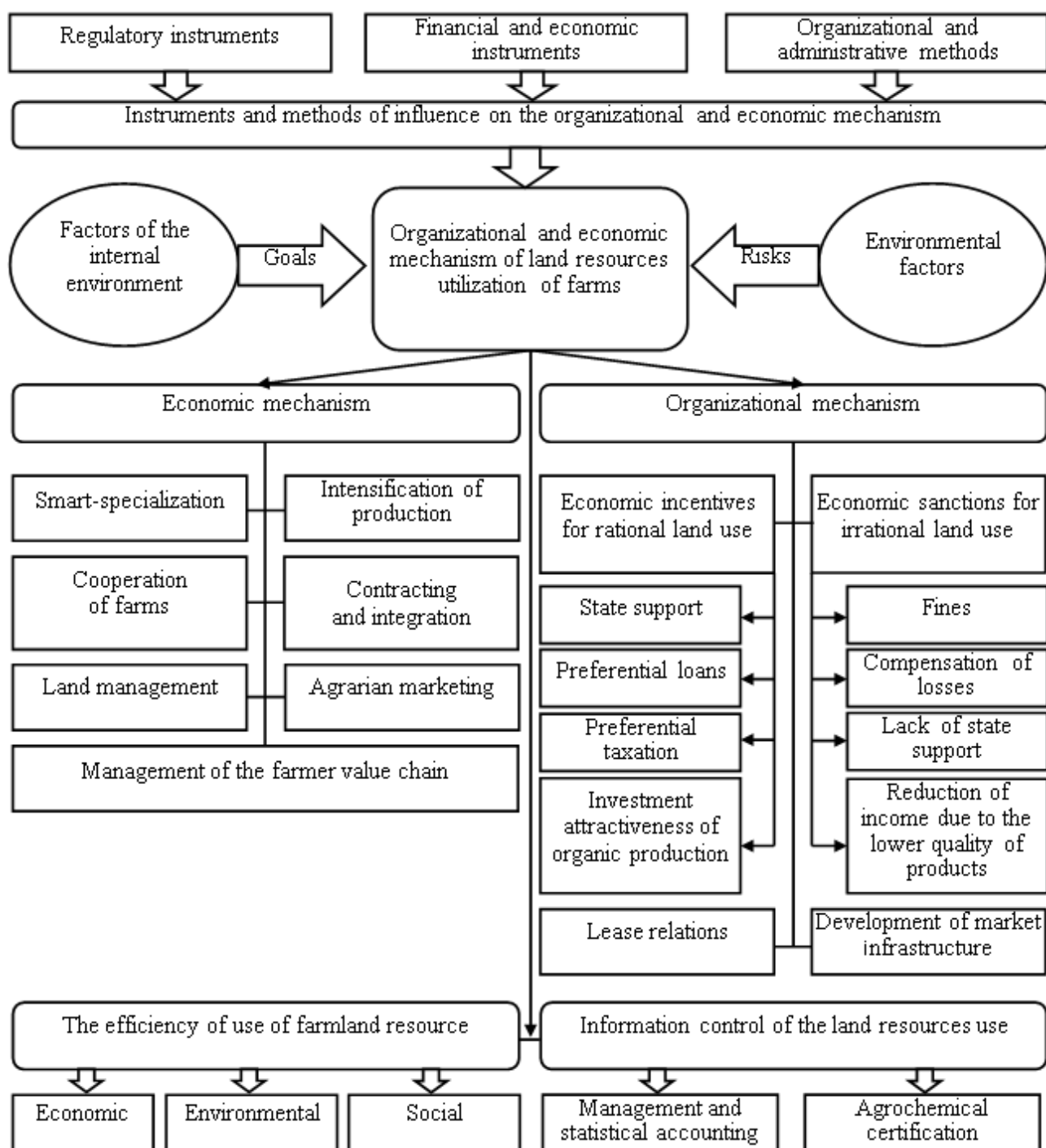
Smart-specialization management is considered a strategic direction of increasing the efficiency of the farmland use<sup>12</sup>. We refer to the smart-specialization of farms as the innovation-oriented system of spatial and systematic development of socially and ecologically balanced agricultural production of competitive products, which also involves a deliberate process of separation as a result of the division of socially distributed labor between industries and types of economic activity that are characterized by a homogeneous output, technical and technological support and qualification of staff, and is accompanied by an increase in the efficiency of the land use – the resource potential in the long term. In a transition to a smart-specialization, the farm is becoming innovative-oriented, and the state must do its utmost to promote innovation and investment, transfer of innovations to agribusiness, and stimulate sales of niche agricultural products.

The instruments of smart-specialization of farms include the digitalization of agribusiness, innovative agro technologies, organic industry, government interventions of innovative products, training and retraining of staff for the innovative farming. Organizational forms of the implementation of the smart-specialization policy are clusters in the agro-food sector, formed with the participation of farms, closed farm value creation chains, network forms of farm cooperatives, product integration, the involvement of farmers in agro technologies, national technological platforms, startups, etc.

To increase the farm management efficiency in the transition to a smart-specialization model, a national information center (hub) for the development of farming in Ukraine needs to be created. Its goals are the transfer of innovative technologies, the introduction of a system of rational and ecologically safe land use and bioethical animal husbandry, the development of electronic trade in agricultural and science-intensive products, monitoring agricultural markets to identify free market niches, ensuring cooperation of farmers and financial institutions to facilitate obtaining of credits, integration of farm sector to international markets for agrarian products, etc. The following principles should be followed to ensure the effective operation of the hub: ensuring transparency, honesty and ethics for doing business; protection of perfect economic competition; freedom and democracy when adopting farmers' management decisions; continuous improvement of the mechanisms of management of the farmer chain of value creation; adaptability and flexibility according to the changing environment; loyalty to new innovative solutions of competitors; guarantee of ecological safety of management; non-damage to the rural areas; preservation of soil fertility.

<sup>1</sup> Foray D. Smart Specialisation: the Concept [Rozumna spetsializatsiya: kontseptsiya]. Available at URL: [http://opcompetitiveness.bg/images/module6/files/26/99\\_Foray\\_Sofia.pdf](http://opcompetitiveness.bg/images/module6/files/26/99_Foray_Sofia.pdf). .

<sup>2</sup> Smart Specialisation Platform. European Commission [Rozumna platforma spetsializatsiyi]. Yevropeyska komisiya. Available at URL: <http://s3platform.jrc.ec.europa.eu/s3-guide>. .



*Fig. 1. The structural model of organizational and economic mechanism use of farmland resources*

*Source:* Developed by the authors.

Besides, one of the strategic directions of increasing the efficiency of farmland use is the management of value creation chains<sup>1</sup>. In turn, we refer to the value creation chain of farms as a set of interconnected phases of the production and marketing process, which aims to increase the efficiency of the farm economy by maximizing the economic effect of economic activity in the target commodity market<sup>2</sup>. The function of the farm value chain includes the positioning of the farm

<sup>1</sup> Porter, M.E. (2005): Konkurentnoe preimushhestvo: Kak dostich' vysokogo rezul'tata i obespechit' ego ustojchivost'[Competitive Advantage. Creating and Sustaining Superior Performance], Alpina, Moscow, p.715.

<sup>2</sup> Groshev, S.V. (2018): Upravlinnia lantsiuhamy stvorennia tsinosti v konteksti pidvyshchennia efektyvosti vykorystannia zemelnykh resursiv fermerskykh gospodarstv [Management of value creation chains in the context of

and its products in the agrarian market, resource availability and production, the uniqueness of the created benefits and a set of managerial competencies of the farmer as the main manager. Managing the creation of the farm value chain is a systematic process of organizing, motivating and coordinating production and economic activity at all levels of the chain, constant monitoring of rational and ecologically safe use of the land resources, production of high quality products and marketing in specified timeframes to improve the competitiveness of the economy in the market and maximum satisfaction of the demand of a solvent final consumer. Moreover, the relevant management process involves four blocks of management decisions: improving the production process, improving specialization, product improvement, modernization of the value chain. The most effective forms of implementation of optimized farming chains of value creation are the cooperation of farms and the contracting of agricultural products as a network-integrated quasi-cooperation.

The main advantages of forming up farm cooperatives and network quasi-cooperatives are as follows:

- farmers' associations have advantages in concluding contracts for the purchase of material resources and the sale of their production;
- a significant advantage of cooperative associations is the possibility of exchanging experience on the effectiveness of agricultural activities, as well as the desire to work together to achieve competitive advantages in the agrarian market;
- due to the integration of farm efforts, as well as advantages in the purchase of raw materials and products, the rate of production return increases, thus, the profit is distributed equally between each participant of the cooperative;
- integrated farms are more economically protected from the risks of volatility of the market condition on non-niche products, therefore, stimulating its production and enabling the development of long-term strategic plans for the development of each farmer and the cooperative as a whole;
- a small individual farm does not have sufficient financial support for the rapid build-up of the material and technical, and resource facilities. Forming up cooperatives, farms get the opportunity to increase production volumes by obtaining a loan for the development of the enterprise, as well as using the means of production leased from other members of the cooperative;
- legally registered cooperative associations, complying with the requirements of the current legislation of Ukraine, may receive financial aid from the state budget, as well as take part in international projects for the development of agricultural co-operation.

In general, the development of traditional forms of cooperation in agriculture, especially in the field of farming, is still being hampered by the lack of effective incentives, the failure of efficient motives in the market life and the imperfect state agrarian policy<sup>1</sup>. Also, the formalization of cooperative relations requires legal registration, which ultimately leads to several additional problems and burden rates associated with the creation of a cooperative, reporting, taxation, distribution of results of work, and management.

Concurrently, the practice of farm management shows that without the integration of individual parts of the chain of value creation or quasi-cooperation, it is often not possible to increase the efficiency of land use and activities in general. The form of implementation of contractual relations with farm involvement is «network farms» or «network cooperatives». As a result, farms receive benefits in the form of guarantees of the stability of product sales; reduce the level of commercial risks, the access to additional resources and loans, legal protection of their rights against raiding, etc. As a result, the level of competitiveness of farms increases, the efficiency of using the land, labor and logistical resources increases, capital equipment, and labor intensity also increase, and there are wider opportunities for long-term planning of the economic activity.

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increasing the efficiency of land use of farms]. Aktyalni problem innovatsiinoi ekonomiky – Actual problems of innovative economy, No 4. pp. 76-83.

<sup>1</sup> Lupenko, Yu.O. (2016): Rozvytok pidpryjemnytva i kooperaciji: instytsionalnyj aspekt [Development of enterprise and cooperations : institutional aspect]. Kyiv: NNTs «IAE», p. 430.

The synergistic effect of network farming is the additional benefits of the scale of production, the organization of resource sharing and the sale of finished goods, the distribution of production and commercial risks between the customer and the commodity producer.

Thus, it can be claimed that the introduction of the above-mentioned mechanisms for managing the efficiency of farmland use will increase the efficiency of economic activity and the competitiveness of farms, rationalize their land use and expand the reproduction of land resources. At the state level, this contributes to the increase of employment in the rural areas, the development of small-scale farming, family-owned farms and their integration into the market.

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## **1.6. FORMATION OF STRATEGIES OF ORGANIZATIONAL CHANGES IN MANAGEMENT OF AGRICULTURAL ENTERPRISES AS A NECESSARY CONDITION FOR THEIR INNOVATION DEVELOPMENT**

The current state of the Ukrainian economy, its integration into the world economy and its active participation in the processes of globalization necessitate the increase of the competitiveness of national enterprises. But when working on both domestic and foreign market enterprises are constantly faced with problems, the source of which is the impact of the external environment, which is characterized by variability and unpredictability of extreme instability. Under such difficult conditions, the key factor in the successful functioning, development, and sometimes and survival of an enterprise is the speed and adequacy of its management's response to changes occurring in the external environment. Enterprises are forced to adapt to such changes by searching for new markets, improving the range of products and improving its quality, which necessitates the improvement of enterprise management using the concept of change management. This concept should cover all planned and controlled changes in various enterprise sub-systems: strategic and operational management, organizational structure, marketing, production, technology, finance, innovation, personnel, information, etc.

Formation and application of the concept of change management aimed at innovation development is a key to increasing the competitiveness of enterprises.

According to Vikhansky O.<sup>1</sup> the task of managing change is to correctly evaluate the essence of processes occurring in the enterprise environment, to select and implement those innovations that will reduce the diversity of internal and external factors into a single trajectory of behavior, preserve and increase the efficiency of the activity. When realizing that there is a decrease in the efficiency of activity, the company begins the process of organizational changes. Then, need to define the goals of the enterprise, design strategies and management systems. After the new organizational project is ready, a strategy for its implementation is being developed.

In the system of strategic management, organizational change is an instrument - a set of methods and methods for implementing the strategy and achieving the goals of effective operation and development of the enterprise. At the same time, the scale and nature of organizational change depend on the level of strategic management and enterprise goals<sup>2</sup>.

Before considering the methodological approaches to the formation of the strategy of organizational transformations, it is necessary to clarify the essence of the concept of "Strategy". According to E.A. Utkin «Strategy - primarily, a reaction on objective circumstances internal and external activities». At the same time, the "strategy" is a direct function. It not only focuses on this period of time, but also contains a set of global ideas of enterprise development "<sup>3</sup>.

According to L.R. Zaytsev and M.I. Sokolova " The strategy is a combination of planned actions and rapid solutions for adapting the company to the new situation, new opportunities for gaining competitive advantages and new threats to weaken its competitive position. The strategy may be deterministic (well-planned) and at the same time can be stochastic (formation under the influence of random factors): The predominance of one of the components in the enterprise's final strategy depends on the level of instability in the enterprise's operating environment"<sup>4</sup>.

V.O. Ognevsky proposes to consider the strategy of transformations "as a plan of work for the nearest and future time, drawn up taking into account the influence of the external environment, to

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1Vikhanskiy O. S. Strategicheskoye upravleniye. – M.: Izd-vo Mosk. unta, 1995. – 250 s. - s.81.

2Otenko I.P. Metodichnyy pidkhd do otsinky rivnya korporatyvnoyi kultury mashynobudivnykh pidpryemstv v protsesi orhanizatsiynykh zmin /I.P.Otenko, M.I.Chepelyuk// Modelyuvannya rehionalnoyi ekonomiky - №1(25) – 2015 –s.299-310

3Upravleniye izmeneniyami: khrestomatiya / Per. s angl. Pod red. G.V. Shirokovoy. – 2-ye izd. – SPb.: Izd-vo «Vysshaya shkola menedzhmenta», 2010. – 496s.

4. Zaytseva L. G.Strategicheskyy menedzhment: uchebnik / L. G. Zaytseva, M. I. Sokolova. – M.:Yurist", 2002 –416s.

achieve the set goals, which will increase the competitiveness of the enterprise and improve the financial state"<sup>1</sup>.

The strategy of change is a characteristic of the deviation of the future strategy from the existing one. Describe this characteristic by such concepts as structure, rate of change and their direction. With the help of the change strategy, the company focuses on changes. The concept of a change strategy, in comparison with other strategies, is wider when making specific decisions. Unlike traditional strategies, the change strategy helps the company find the answer to the question of what changes are needed? Based on this, the change strategy determines which organizational capability is needed to implement the changes

The strategy of change helps to determine the development course of the organization, which is based on basic development strategies. In practice, there are often cases where change strategies and development strategies are not coordinated, since the latter determine the general direction and the previous develop a course.

There are examples where organizational changes that did not meet the desired development strategy. This is especially true in the formation of various integration associations, which is often due to situational circumstances or personal interests.

It is impossible to give an example of a strategy of change that would be considered ideal, although it is often possible to hear about the effective work of managers who can quickly make radical changes, but not take into account the experience, knowledge and even the work of people directly affected by changes.

The goal of organizational change strategy is to guarantee an effective organization response to an existing need or to adapt to changes in the external and internal environment. This response requires support from employees. The strategy should guarantee the existence or creation of conditions in which the organization will have high chances of success.

According to opinion<sup>2</sup>, based on the concept of "strategy", the strategic nature of change means that they should be related to key, crucial long-term business transformations of the enterprise, which are crucial for the functioning of the business and lead to long-term and inevitable consequences. Secondly, the orientation of such changes to innovative development involves positive qualitative changes in the enterprise, the replacement of the current state in different spheres of its activities to a completely different, much better.

Such changes may be related to the reorganization of the enterprise, the introduction of large investment projects, new technologies, entry into new markets, etc.

There are a number of different approaches to the classification of organizational change strategies. The basis of such classifications is the various variations of variations and their dependence on a number of factors:

- the degree of control on the part of leaders;
- use of external experts;
- pace of organizational change;
- central or local concentration of forces.

Whatever the strategy (business, functional): it always involves organizational changes. If changes are not envisaged, then there is no need to change the existing strategy – it is only necessary to support it.

The usual strategy of enterprises helps to find the answer to the questions-what needs to be done to achieve the organization's goals. The change strategy helps determine the type of organizational change required for an enterprise.

There is no one truly successful and effective change strategy, although we often hear about quick and successful business changes, without taking into account the knowledge and experience

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1. Ohnevyy V.O. Formuvannya stratehiy transformatsiy i pidpryemstv avtomobilnoho transportu / V.O. Ohnevyy // Visnyk ZHDTU. – №2(53) – 2010 - 109-118s.

2. Voronina A.V. Formuvannya systemy adaptivnoho stratehichnoho upravlinnya rozvytkom orhanizatsiyi / A.V. Voronina, A.S. Zyenina-Bilichenko // Hlobalni ta natsionalni problemy ekonomiky. - Vyp. 11. - 2016 – 294-299s.

of people directly affected by the change process. But such an approach will only help for a short time. Extending this approach will lead to higher costs than positive changes.

The change strategy should determine which organizational capacity is needed to implement the changes and characterize the development a course of the organization. Therefore, the difference in the strategies of change from the development strategies lies in the fact that the latter determine the general direction, and on the basis of the first - the course is developed.

To increase the efficiency of organizational changes, need to pay attention to the approach to building the strategy of the enterprise. These approaches do not always correspond to change strategy. Strategy development as a process must be flexible and carried out for innovation. It is important to evaluate the possibilities of using these approaches in terms of this concept.

The classification of the main approaches takes place both in relation to the development and the procedure. It is necessary to study the main aspects.

The strategy of change must be consistent with both the overall strategy and the dynamics of the environment. Such changes are step-by-year according to external changes. With this approach, leadership is quickly identified with the goals of the organization and is moving closer to their implementation. This is the most effective and cost-effective approach possible in problem situations.

Changes in the enterprise can't be carried out in parallel with changes in the environment. They may not be able to keep up with the changes in the external environment due to incomplete diagnostics, which may lead to a change in interpretation by strategic signal managers. The inability to meet the requirements of the environment in time can cause incorrect changes, as a result, a problem situation begins to develop in the system itself. In this case, it is necessary to apply more radical - transformational changes. They are used for the purpose of changing the state of the enterprise. If the enterprise can't reduce the strategic lagging and increase the efficiency of management, the result may be a way out of business.

D.V. Sokolov and L.M. Martynov proposes a procedure for developing an organizational change strategy.

Organizational transformation management strategy should determine which organizational capacity is needed to implement the changes and characterize the trajectory of the organization's development.

Briefly analyze each stage.

Stage 1. The main task of diagnosing - identifying problems at the enterprise. From what problems will be determined depends on what requirements will be put forward to the mechanism of change management.

Stage 2. Based on the results of diagnostics, the formation of the main goals and directions.

Stage 3. Determines which strategies are priorities for enterprise development. It is possible to use a combination of strategies.

Stage 4. For the determination and formation of the system of proposed changes, the methods of system analysis are used <sup>1</sup>:

- methodology that takes into account environmental factors;
- a methodology based on a "concept of action".

It is possible to use other methods or combinations of proposed ones.

Stage 5. An analysis of the potential of organizational change and its dynamics (possible use of various techniques):

Stages 6-7. There is a plan for the formation of organizational change.

According to Baldinuk A.G. change management strategy should have such documents<sup>2</sup>:

1) analysis of the current situation (life cycle stage, external and internal environment analysis, availability of resources, staff readiness for change);

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<sup>1</sup>. Volkova V.N., Denisov A.A. Osnovy teorii sistem i sistemnogo analiza. – SPb.: Izd-vo SPbGTU, 2001.

<sup>2</sup>Baldynyuk A.H. Stratehiya upravlinnya zminamy v orhanizatsiyi /A.H.Baldynyuk//Ekonomika i suspilstvo . – Vyp.10. – 2017 – s.155 – 158



- 2) organizational structure of implementation of strategies (analysis of sustainable and flexible organizational structures);
- 3) risk analysis (risk group definition, analysis of identified risks);
- 4) map of strategy for managing change ("what, when, where, who, why");
- 5) training and coaching for staff.

According to L. Greiner "Model of the process of successful management of organizational change" the special importance in managing the process of organizational change:

1. Pressure and awakening - management should understand the need for changes caused by factors of the internal and external environment;
2. Mediation - involvement of consultants who can objectively assess the situation;
3. Diagnosis - collecting information and determining the causes of problems;
4. New solution and requirements for its implementation;
5. Experiment - organizations rarely carry out large-scale organizational changes at once, experiments are needed to help understand the possible consequences of changes.;
6. Consent and reinforcement - motivate and train staff for change <sup>1</sup>.

L. Grainer offers a general approach for implementing organizational change strategies.

If we keep in mind the specifics of the relationship between the leadership and the staff of the organization and the timeframe - distinguish the following strategies of organizational change:

1. Analytical strategy. Management invites to organize expert analysts who will be able to study the problem and offer solutions, while employees of the company do not participate.;
2. The trial and error strategy. Management can't highlight the problem; therefore, groups of employees are involved that are looking for solutions to the problem and learn from their mistakes.;
3. Negotiation strategy. Negotiations with staff are being held, which help to find an effective solution;
4. Strategy for achieving common goals. Consultants are invited to implement this strategy. The management gets the team's approval for change and sets the goals for each team member to achieve organizational change and defines responsibility for achieving goals;
5. Directive strategy. In a crisis situation, management needs to quickly make decisions and conduct organizational changes quickly without attracting staff.

Holod S.B. and Grushevsky S.V. offer a typology of key strategies, directions and types of change, according to development strategies:

1. The strategy of expansion, growth, aimed at increasing the efficiency of functioning and associated with the development of the operating enterprise, ensuring high growth rates, including increasing competitiveness, gaining new or expansion of existing markets, optimizing the organizational structure, diversifying activities.
2. Strategy of reduction, restoration, aimed at financial rehabilitation, restoration of solvency, reduction of expenses of the enterprise.

The choice of strategies and directions of transformation, as well as the definition of the main tasks of management, depend on the specific situation prevailing in the enterprise and the conditions for its implementation <sup>2</sup>.

It is a mistake to assume that the strategy of managing organizational changes is subject to the general strategy of the enterprise. Henry Mintzberg notes "the ineffectiveness of strategic planning as a projection of existing knowledge of the organization for its future, constrains the development of creative potential of the company, as well as promising creative ideas"<sup>3</sup>.

<sup>1</sup>Endrue Mas-Colell / Noncooperative Approaches to the Theory of Perfect Competition : Presentation/ University of California, Berkeley, California 94720 – 263p

<sup>2</sup>KholodS.B. Konkurentospromozhnist yak mira vidpovidnosti stratehiyi rozvytku I stratehiyi orhanizatsiynykh zmin / S.B.Kholod, S.V.Hrushevskyy // Visnyk ekonomichnoyi nauky Ukrayiny, 2014. - №1. - s.128-131

<sup>3</sup>. Mintsberh H. Zlit i padinnya stratehichnoho planuvannya / H .Mintsberh. K., 2008 – s.322

Colenso M and Masaaki I.<sup>1</sup> in their researches, have established the relationship between strategy and characteristics, which includes processes, structure and hierarchy. They expressed the opinion that changing these characteristics is the implementation of a strategy of change (Table 1):

In the system of strategic management, organizational changes are tools, that is, a set of methods, techniques and methods for implementing a strategy to achieve the goals of effective operation and development of the enterprise. The scale and nature of organizational transformations depend on the level of strategic management and enterprise goals. Studies have shown that there are a number of diverse approaches to the classification of organizational transformation strategies. The basis for the classification of signs is laid different versions of changes and their dependence on significant factors: the degree of management of the organization from the administration; the need for external experts to be involved; the pace of organizational change; the degree of centralization of managerial efforts. Regardless of the type of business development strategy, it involves organizational changes and transformations. In turn, if changes are not foreseen, then there is no need to change the existing strategy, but it is advisable to only support its gradual implementation.

*Table 1. Typology of Strategic Organizational Transformations*

<b><i>Comparative parameters and characteristics</i></b>	<b><i>Type of strategies for organizational transformation</i></b>	
	<b><i>Strategy "revolutionary transformation"</i></b>	<b><i>Strategy "evolutionary transformations"</i></b>
<i>Type of changes</i>	Quick Changes	Slow changes
<i>The degree of planning changes</i>	Clearly planned changes	Initially unclearly planned changes
<i>The degree of staff coverage</i>	A small number of involved employees	A large number of involved employees
<i>Resistance to the system</i>	Overcoming resistance	Minimize resistance

Investigation have shown that it is advisable to classify organizational transformations and, accordingly, strategies for their implementation, by identifying revolutionary and evolutionary types of change. At the same time, revolutionary changes take place dynamically and have broad orientation, and evolutionary changes take place gradually, they grow slowly and are narrowly directed (Table 1): By analyzing Table 1, we can indicate the difference in strategies when conducting individual organizational changes, management can choose only one of the proposed strategies. But if changes occur systematically (repeat): management should choose such a strategy of change, which would reflect the signs of both strategies.

When forming a change management system at the enterprise it is necessary to take into account that success will depend on the quality of the developed strategy, and the goal of organizational transformation is to achieve strategic goals and gain competitive advantages, and therefore, in the current conditions, it is expedient to use a strategic approach to managing change in the enterprise.<sup>2</sup>

Managing the change process requires long-term development of managers and organizations. Changes are not an end in itself.

When implementing systematic organizational transformations, we can use the model of the process of organizational changes of K. Levine. Based on the model's provisions, organizational changes take place in three stages:

1. Creating readiness for change (measures are being implemented that will create conditions for successful changes, at the same time weaken the factors that keep the organization in its current state);

1. Kollinz Dzh. Vidkhoroshoho do velychnoho/Dzhym Kollinz. – Kyiv: Nash format, 2017. – 368 s

2 Hrisko T.V. Upravlinnya zminamy na pidpryemstvakh – neobkhdna umova zabezpechennya yikh rozvytku / T.V. Hrisko // BIZNES INFORM - №10. -2013 – 247-252s.

2. Transition (passes from the current state to the desired, passes the process of developing a new behavior);

3. Fixing (this stage is needed to create mechanisms that will guarantee the effective operation of the organization):

Work on implementing a change strategy will be considered unsuccessful if:

- A development program is drawn up without clear goals for change;
- The program is compiled for a short period of time;
- Work on development concluded only in seminars, without core activities in the workplace;
- There is a significant difference between the desire to change the leaders of the upper and middle level;

- The chosen strategy is used as a template.

Work on implementing a change strategy will be considered unsuccessful if:

- The Top management knows about the development program and promises to fulfill it;
- The organization's development is characterized by long-term character and interactivity;
- The development is based on business knowledge and experience.

After developing a strategy for implementing organizational changes, it is necessary to analyze the effectiveness of their organizational changes and identify new objects for transformation. Thus, the return to the initial stages of organizational change management is carried out. It is necessary to emphasize the special significance of the process of assessing the effectiveness of organizational change. Starting the program of organizational changes, enterprises reach the implementation stage, do not analyze the achieved results, ignore the continuous nature of change, and the need to manage organizational changes as a cyclical process. To solve the problem, we need tools to assess the effectiveness of organizational changes in the enterprise.

The effectiveness of organizational changes in the enterprise is estimated by the growth of absolute indicators - profit, volume of sales, etc., for the period when the changes were introduced at the enterprise until their completion. It is believed that the approach is narrow, limited, because it does not take into account changes in costs, which accompany the growth of performance of the enterprise. This approach evaluates the effect of implementing changes rather than their effectiveness.

Organizational changes can lead to multi-layered effects. Therefore, applying a single methodology for measuring the effectiveness of changes would be incorrect. In order to prevent problems in assessing the effectiveness of organizational changes, one must adhere to the requirements formulated by Bozhko L.M.<sup>1</sup>:

1) Complexity of assessment - diverse objects are often measured in different metrics, while changes are measured more often in monetary terms. Therefore, a comprehensive assessment of the effectiveness of changes is possible only through the assessment of different types of efficiency in the system of interdependent performance indicators, taking into account the constraints in the values of indicators. In this approach, a comprehensive assessment may include other important performance indicators, according to researchers.

2) Harmonization of internal and external efficiency. It is used in the marketing approach to organizational changes and their strategic orientation. Achieving internal efficiency and achieving external efficiency are two contradictory and sometimes mutually exclusive goals, the first of which is related to operational, and the other to strategic management. At the same time, increasing internal efficiency in some cases can help increase external efficiency, which then will be reflected in marketing indicators.

As an example, measures to reduce production costs will reduce the cost of production, which will make it possible to lower the price. External and internal effectiveness are interconnected and interdependent, but it is difficult to talk about simultaneous achievement of both types of efficiency at each stage of implementation and after organizational changes.

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<sup>1</sup>Bozhko L.M. Trebovaniya k otsenke effektivnosti upravleniya organizatsionnymi izmeneniyami/ L.M.Bozhko//. – Sovremennyye tendentsii v ekonomike i upravlenii - 2012 - №3 -18-23s.

3) Integration between strategic and operational level management. It is already achieved in the process of establishing the relationship between internal and external effectiveness. Achievement of strategic development goals is related to external efficiency, in the long run such results should ensure the internal efficiency of the enterprise.

4) Inclination of evaluation. The versatility and depth of the assessment of the effectiveness of management, embodied in many indicators, should not be an end in itself when assessing the effectiveness of changes. Indicators should be consistent and correspond with reality (current realities):

5) Timeliness of the evaluation. In general, the effectiveness of organizational changes consists in the effectiveness of their implementation and the effectiveness of the use of the results of organizational changes. Therefore, the final assessment of organizational changes is possible only when the results of the changes themselves are obtained. Otherwise, we need to set a deadline, after which even positive results will no longer testify to successful work. Later evaluation will respond not only to the inability to interfere with the process of achieving results, such an assessment will already be tied to another timeline of the assessment, and hence to other conditions of existence.

Approaches to evaluating the effectiveness investigated by many scientists. But their application is complicated by the fact that insufficiently developed methods of assessing the effectiveness of which the object is a strategy, the available work does not allow to evaluate efficiency from the standpoint of efficiency and effectiveness.

From the variety of approaches in practice, "Criteria approach" is most often used. Under the criterion of efficiency is understood as a measure of the size of which one can speak about the degree of conformity of the evaluated alternative to the goals set. The choice is determined by those goals that are placed before the object of evaluation.

Effectiveness - the relative effect, the effectiveness of the process, the project, defined as the ratio of effect, result to costs, resulting in its receipt <sup>1</sup>. This is the so-called internal efficiency of resource use. The assessment of external efficiency along with the internal is fully justified in the management of organizational transformations, since in addition to marketing, organizational transformation gives side effects to other spheres of the enterprise. From this it follows that in principle it is impossible to measure the "classical" formula of the effectiveness of organizational changes, using all their diversity.

In a broader form, the effect of organizational change has a diverse focus:

1) Marketing effect is the development needs and create new ways to meet the needs of consumers, strengthening the market position of the company and increase its competitiveness;

2) Scientific effect is manifested in the manifestation of new technological and technical solutions;

3) Organizational and managerial effect - these are new forms of organization, new processes, technologies and procedures of management;

4) Social effect can be targeted at both the staff of the enterprise and society. It manifests itself in the improvement of working conditions and in the development of personnel, in the active use of methods of moral motivation;

5) Economic (financial effect) manifests itself in obtaining a positive difference between the results of organizational changes and incurred expenses, expressed in monetary units;

6) Information effect is manifested when creating new information on the development of the environment and the internal environment of the enterprise;

7) Ecological effect is determined by the level of protection of the environment from the negative impact on it of human life processes.

In the book, "Effective Management", P. Drucker points out that "management can only be done by what can be measured"; therefore, it is necessary to determine how effective an strategy is that takes into account the specifics of the industry specificity of the enterprise and the competitive

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<sup>1</sup>Sovremennyy ekonomicheskii slovar' [Elektronnyy resurs]. – Rezhim dostupa: [www.economic-enc.net/word/yyeffektivnost-6286.html](http://www.economic-enc.net/word/yyeffektivnost-6286.html)

situation on a particular market. It will help not only to evaluate efficiency but also to manage it taking into account the prospects in a changing market.

According to Fathutdinov R.A., effectiveness of the strategy is the ratio of the achieved effect of those expenditures<sup>1</sup>.

Effectiveness can be represented as a function of the resources, results and parameters of the environment that determine the market situation:

$$E = F(\bar{x}, \bar{y}, \bar{a}):$$

$E$  – Indicator of efficiency a strategy;

$\bar{x}$  – vector of resources necessary for strategy implementation;

$\bar{y}$  – vector of planned results;

$\bar{a}$  – vector of the parameters of the environment, the change of which leads to a change in the effectiveness of the strategy.

These vectors are analogous to efficiency, performance and productivity.

Schemeleva A.V. and Artemenko L.P. give their own definition of this category of "effectiveness of the strategy" – an assessment of the achievement of the goals of the enterprise, namely the achievement of a certain level of competitiveness and financial independence<sup>2</sup>. Researchers believe that the current strategy is not possible to estimate a generalized measure because it generates a lot of perspectives of the enterprise.

Leshchenko L.M.<sup>3</sup> proposes to include approaches to assessing the effectiveness of the strategy: assessing the competitiveness of the enterprise and assessing the effectiveness of the financial strategy. When using the indicator of competitiveness there are methodological difficulties in its calculation. Most of the indicators that have an impact on the success of the competition, in most cases, can't be subjected to formalization.

To assess the effectiveness of the financial strategy, a system of criteria for evaluating the strategy is used. This system is divided into three groups:

- criteria for external coherence of the strategy (level of consistency with corporate strategy, level of coordination with functional strategies, level of compliance with predictable changes of environmental factors);
- criteria for the internal balance of the strategy (the level of balance of strategic goals and targets, the level of implementation of the strategy, the compliance strategy to the level of risk);
- criteria for the effectiveness of the strategy (level of economic efficiency, level of growth of the enterprise value, level of synergy effect):

Smirnova Ye.V.<sup>4</sup> offers a generalized scheme for assessing the effectiveness of a strategy based on a synthetic approach. The algorithm for evaluating the effectiveness of the strategy includes eight stages, in the course of which analyzes the economic efficiency of the strategy (internal and external): the effectiveness of the strategy, the formulation of combined indicators of efficiency, productivity and effectiveness, and an especially important stage, in our opinion, the formation of integral indicators of internal and external effectiveness of the strategy.

Analyze the principles of creating an effective strategy:

- 1) Strategy is determined by the vision of the organization of its future. It is impossible to formulate a strategy until there is a clear idea of what we want to achieve. The vision of the future includes the key principles of the organization's activities, the mission of the organization;

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1Fatkutdinov R.A. Proizvodstvennyy menedzhment: Uchebnik / R.A. Fatkhutdinov – 6-ye izd. – SPb.: Piter, 2008 – 496 s.

2 Shchemelova A.V. Pidkhody do otsinyuvannya efektyvnosti stratehiyi/A.V. Shchemelova, L.P.Artemenko// Aktualni problemy ekonomiky ta upravlinnya.Vyp.6. – 2012 –s.34-39

3 Leshchenko M.M. Otsinka efektyvnosti stratehiy ikholdynhovoy kompaniyi / M.M. Leshchenko //VisnykChernihivskoho derzhavnoho tekhnolohichnohouniversytetu. Seriya «Ekonomichni nauky». Zbirnyk. – Chernihiv: CHDTU, 2010 – № 46 – S.45-47.

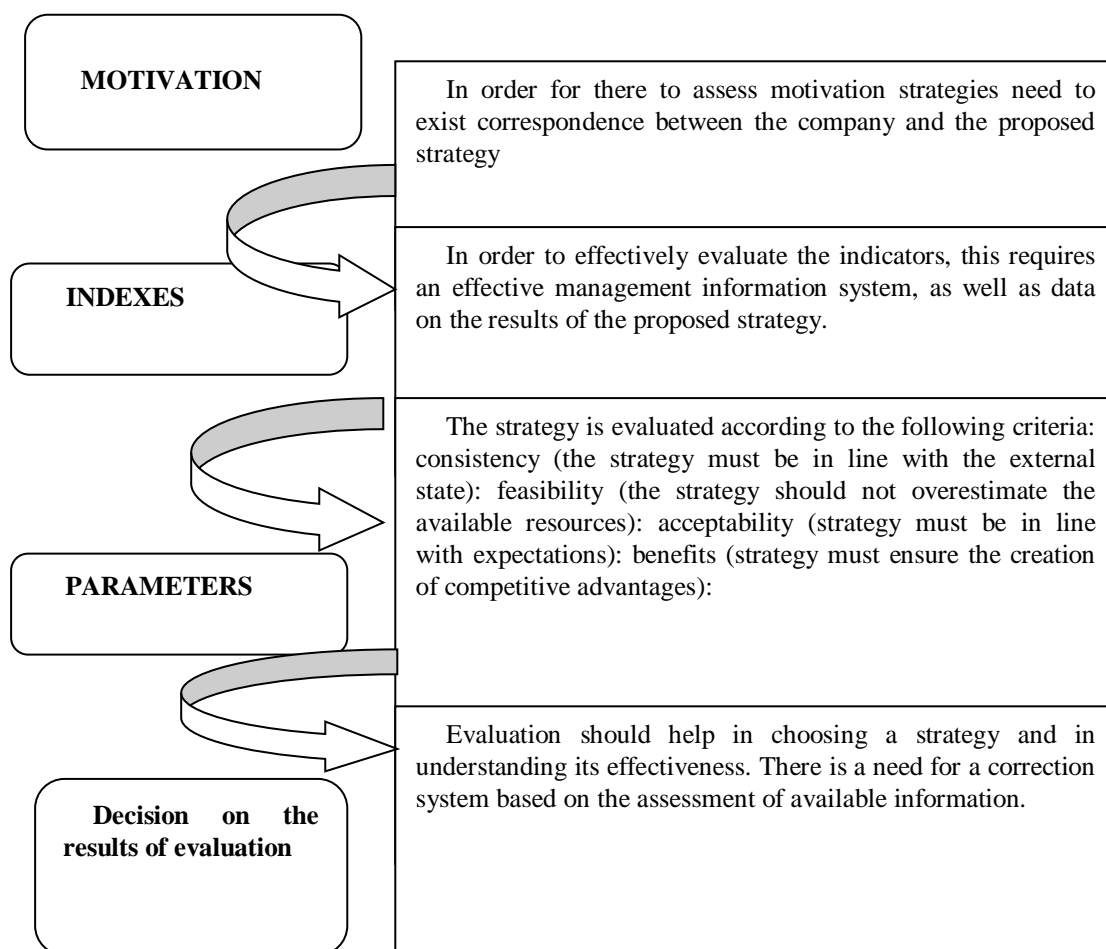
4 Smirnova Ye.V., Spirina A.M. Sinteticheskiy podkhod k otsenke effektivnosti strategiy promyshlennykh predpriyatiy // Vestnik OGU. 2012. №13(149): S. 323-328.

2) Strategy must help maximize the benefits that the organization has. During the preparation of changes, special attention should be paid to the search for opportunities, benefits, and not threat identification. In other words, we need to understand what the organization is strong;

3) Strategy should be realistic. It should take into account internal constraints (resources, personnel qualifications, status of the management system) and external factors (legislation, economic situation);

4) Strategy of changes should take into account the interests of all participants in the process of change, which requires orientation of the results of changes to respect the interests of all participants in the life cycle of the organization. The logic of successful changes in ensuring an optimal balance of interests of the parties (Figure 2):

5) Strategy should be created with the participation of its future performers. We always will be more effective in implementing our own projects, and not others. Therefore, the participation of employees in the development of the strategy makes it "closer" in the understanding of future strategy implementers.



*Fig. 2. Elements of the system of assessment of the strategy*

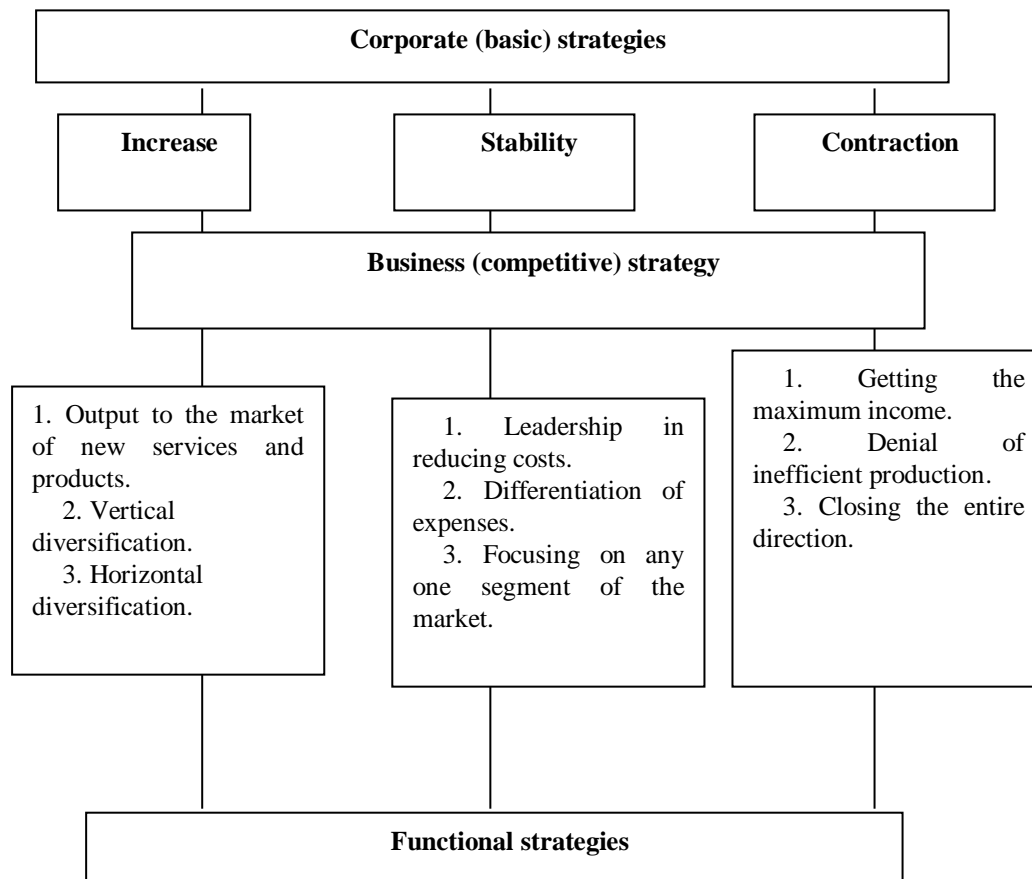
In implementing the process of forming a strategy in time, the use of methodical techniques can be used, based on this, traditional strategic matrices are used. The system of strategies includes three levels of strategic decision making:

- 1) General;
- 2) Business or competitive
- 3) Functional.

General (basic, portfolio) shows the direction of development of the enterprise as a whole. At such a level a decision is taken on the types of economic activity of the organization and the issues of merger are resolved, and so on.

The approach to classification of types of strategies is based on structuring the levels of strategy formation.

Varieties of general organizational development in the system of strategies are divided into three main types: growth, stability and contraction (Figure 3):



*Fig. 3. System of the basic strategies of organization development*

The success of organizational change depends on the quality of the solution, as well as the effectiveness of its implementation. The latter can have the following consequences: effective implementation of innovations or changes, which leads to increased efficiency; effective implementation, without impact on performance indicators; Implementation did not succeed. That is, changes do not always have positive effects, because if these decisions have no effect, they only reveal the lack of interdependence between the content and the process of change. Also, the negative effects of changes may occur when the goals of change and their budget were determined incorrectly, in this case, when implementing the changes will not improve the effectiveness of the organization.

## **1.7. FACTORS OF EFFICIENCY OF INNOVATION-INVESTMENT ACTIVITY OF AGRICULTURAL ENTERPRISES**

Efficiency is a fundamental and diverse economic category characterized by integrity, dynamism and multidimensionality. In a broad sense, efficiency means the ability of enterprises to successfully operate in the market, to have competitive advantages. Economic efficiency, covering all processes and stages of the enterprise, serves as the basis for the formation of its quantitative and qualitative criteria and is used to substantiate the parameters of extended reproduction.

From the point of view of content, efficiency is primarily attributed to the performance of the work or activity, as well as to the cost-effectiveness, that is, the minimum amount of expenditure to perform a particular job or action. That is why determining the level of efficiency is one of the most important among the set of problems facing the enterprise, which is directly related to the achievement of a certain ultimate goal of its activities.

Efficiency is a complex economic category, associated with purposeful, rational human activity. It reflects certain industrial relations, which are formed between society as a whole and enterprises, as well as individual workers. Effectiveness reflects the action of objective economic laws, the development of productive forces, and the nature of production relations. It is a form of expression of the purpose of production.

Most authors, who formulate the concept of efficiency, understand this category as the ratio of the result to the costs or resources that were spent on its receipt. That is, the efficiency criteria are formed on the basis of expendable (consumed resources) and resource (applied resources) approaches. The cost approach reflects the effect of each unit of aggregate costs or individually the cost of living or ordinarily labor. Resource approach is designed to characterize the efficiency of the use of resources: labor, material, financial.

Fedulova L.I. understands efficiency as the optimal ratio of satisfaction of the needs of certain groups. Such satisfaction depends on the degree of realization of the interests of the participants in the process of functioning of the enterprise. Matching interests and forming on their basis a set of goals of the enterprise is in this approach the main task of management<sup>1</sup>.

According to the definition given in the ISO standards, efficiency is a set of attributes that determine the relationship between the quality level of the operation of a particular asset (object) and the volume of resources under certain conditions.

Consequently, the analysis of the concept of "efficiency" has shown that there are different approaches to its definition. The point of view prevails that efficiency is the ratio of results to costs (resources): that is, the so-called "traditional" definition. Depending on the approach, this concept determines the effectiveness of objects (systems) of different levels – society, enterprises, management systems.

By sharing the views of leading scientists in determining the cost-effectiveness, we offer our vision of this category. Economic efficiency is the maximum benefit that can be obtained at a minimum cost in the process of economic activity, taking into account the additional conditions that occur at the time of determining the effectiveness of the relevant economic measure. Under economic measures means the introduction of new types of products, the conclusion of contracts with suppliers, buyers, acquisition or modernization of new technology, increase production, etc.

The overall level of economic efficiency is defined as the ratio of the result to costs or resources. Increasing efficiency can be achieved both by reducing costs (saving resources) and by improving the use of capital and increasing profits. This approach involves a contradiction: the main purpose of the activity is to maximize the result (effect); with limited resources and high cost, it is necessary to achieve rational reduction of their use.

Effectiveness from the point of view of a certain result that was received or desired by an enterprise can be assessed both quantitatively and qualitatively. In this case, the qualitative side of the efficiency will be reflected in the form of a certain criterion (for example, profitability,

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<sup>1</sup> Fedulova, L.I. (2003): *Menedzhment orhanizatsii* [Management of organizations]. Kyiv : Lybid, p. 448.



solvency, etc.): and quantitative – in the form of a set of indicators that characterize a certain criterion of efficiency (profit, productivity, profitability, etc.): That is, the calculation of the level of efficiency depends directly on the form of its manifestation, which is why, when evaluating it is advisable to distinguish between criteria and performance indicators.

In some cases, the criteria and performance metrics may coincide. For example, G.V. Savitskaya believes that in conditions of market relations, the main criterion of economic efficiency is profit, as the main quality result of the operation of the enterprise<sup>1</sup>.

According to A.D. Sheremeta, profit – the main indicator of financial results of the enterprise, which characterizes its economic effect<sup>2</sup>. At the same time, in our opinion, it is necessary to take into account that profit is an absolute indicator that reflects the result (effect) and can not detail the level of efficiency of the enterprise.

Another criterion of efficiency is the cost-effectiveness of the researchers. According to I.A. Blank, profitability characterizes the ability of an enterprise to generate the necessary profit in the course of its economic activity and determines the overall efficiency of the use of resources and invested capital<sup>3</sup>.

Various existing models of economic efficiency do not always provide reliable results in the practice of enterprises, because agriculture has a number of specific features that shape its specific organizational and production structure and the final financial results.

Agricultural production requires the organic combination and interaction of four factors – labor, fixed assets, labor and land. In the process of production, the industrial consumption of these resources is carried out in order to obtain certain consumer values that are able to meet the respective needs of people. Consequently, any production involves the cost of resources and the receipt of certain results. But for the same amount of resources spent, companies can get far from the same results. In this case, it is said that enterprises are manufacturing with different efficiency.

To determine the economic efficiency of agricultural production it is necessary not only to calculate the result obtained at the same time, but also to compare it with the costs of means of production and living labor.

The essence of improving the economic efficiency of agrarian enterprises is to ensure that each unit spent material, labor and financial resources to increase the volume of production. This will increase the income of enterprises, which is the basis of expanded reproduction of production, increase of wages and improvement of social and household conditions of its employees.

Innovation and investment activities of agrarian enterprises should be considered at the micro level for a separate economic entity, as well as meso- and macroeconomic levels of management, depending on the sources of investment attraction, the size and possibilities of using the potential of innovations.

Different types of efficiency, interconnected and in aggregate ensure the implementation of reproductive processes in agriculture. Table 1 presents indicators for assessing the effectiveness of the functioning of the economic system, in which innovative and investment processes in the industry interact.

Technological efficiency characterizes the use of own and investment potential of agricultural enterprises and allows to assess the innovation of production and marketing processes, processing and storage of agricultural raw materials and food. Cost estimates of the quality of chemicalization, mechanization, melioration, seed production and other subsystems of agriculture are also based on technological efficiency, since they have a direct impact on the technological processes of production in agriculture.

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<sup>1</sup> Savickaja, G.V. (2004): Analiz jeffektivnosti dejatel'nosti predpriyatija: metodologicheskie aspekty [Analysis of the effectiveness of the enterprise: methodological aspects]. Moscow : Novoe znanie, p. 160.

<sup>2</sup> Sheremet, A.D. (2006): Kompleksnyj analiz hozjajstvennoj dejatel'nosti [Complex analysis of economic activity]. Moscow : INFRA-M, p. 415.

<sup>3</sup> Blank, I.A. (1998): Slovar'-spravochnik finansovogo menedzhera [Dictionary-Handbook of financial Manager]. Kyiv : «Nika-Centr», p. 480.

*Table 1. Indicators of efficiency of innovative and investment activity of agrarian enterprises*

Type of performance	Estimates
Technological	Yield of agricultural crops; output per unit of raw materials; quality parameters of agricultural products; losses during transportation; waste when storing agricultural products
Social	Demographic, economic and social indicators of living standards
Ecological	Indicators of quality of productive land; soil erosion; the percentage of saline and contaminated land
Economic	Cost; gross output at current prices; gross income; profit; profitability; financial stability; solvency

Social efficiency is determined by the social status of the rural population living on a particular territory, and measured by indicators of living standards. Social efficiency is also due to the social potential of the agricultural enterprise, which is understood as the set of social elements of production, infrastructure, personnel supply, which determine the possible limits of meeting the social needs of peasants, belonging to the socio-territorial community. Sufficiency of social potential is determined by social indicators (aggregate incomes, wages, indices of population reproduction, birth rates, mortality, correlation of real aggregate incomes with the size of the consumer basket, etc.) by comparison with actual values.

The isolation of environmental efficiency in an independent form is due to at least two reasons. First, it is the need to create an environmentally friendly environment for people, in which the biological balance is maintained, the production of environmentally friendly products and the pollution of the environment with chemical means of agricultural use are not allowed; and secondly, the need for the existence of an indicator to determine the harmonious development of production.

Environmental efficiency is manifested as a result of preserving the natural and biological environment, ensuring the rational use of natural potential, reducing the environmental quality of products, improving the quality of agricultural products by increasing its environmental friendliness. The estimation indicators of ecological efficiency include the coefficients of comparison of the actual and maximum permissible levels of contamination of elements of the environment.

Environmental efficiency is determined by the amount of contributions directed at protecting the environment. The assessment of its level is determined by the following indicators:

- share of net profit, directed on environmental measures; the share of profits spent on waste utilization;
- the share of environmentally friendly products in its overall production;
- availability of treatment facilities and storage facilities for technological wastewater storage;
- the share of environmentally friendly feed for feeding animals in their total amount;
- the number of medicines used for animal veterinary services.

Economic efficiency reflects the realization of economic interests, which is measured by the profitability of production and sales of products. To determine the economic efficiency of certain types of agricultural products can be based on the calculation of specific indicators of gross income and profits. The production (operating) cycle in agriculture for many types of agricultural products is long, and there is a significant time gap between investment in production and production, which must be taken into account when determining the efficiency of innovation and investment activities of agrarian enterprises.

The effectiveness of innovation and investment activities of agrarian enterprises can be studied from different positions: production, cost, effective, strategic, competitive. Target filling the increase in the economic efficiency of the enterprise, ultimately, is to ensure the growth of profits (revenues) per unit of investment in the process of their exploitation. This can be achieved on the basis of rational use of material and technical base, acceleration of turnover of working capital, increase of labor productivity.

The notion of "efficiency" is closely linked to its initial defining characteristics: effect (result): resources (costs): Despite the similarities, there are differences between the paired categories of

"effect – result", "resources – costs".

The categories "result" and "effect" are quantified by absolute magnitude and reflect the results of the system's development. The difference in effect as a relatively independent concept is manifested in the fact that it acts in a specific form of the final result and allows to give a general assessment of the result of activity. If the effect is the difference between the value estimates of the result and the cost, then the efficiency is the ratio of results to costs, which ensures their receipt. Resources and costs take part in the processes of production and sale, during which the transformation of material and material parts (capital and working capital) into capital under the influence of human labor (human resources, labor costs):

In accordance with objective reproduction laws, distinguished between used and consumed resources. The fixed assets, working capital and working capital collectively constitute advanced capital, or applied resources. That part of the resources used, which is used in the process of specific activities and includes separate elements of total production costs (wages, depreciation, material costs) refers to consumed resources. On this basis, costs can be considered as moving resources, and resources – as fixed costs. That is, deeply exploring the concept of "resources" and "costs" can only be based on differences in their dynamic characteristics. An indication of the effectiveness of the resulting effect in terms of revenue per unit of resource or investment cost reflects a resource-cost approach to efficiency.

In the so-called reproductive sense, this category takes into account the dynamics of reproduction of products on an investment-innovation basis. Effective innovation and investment activities are thus aimed at creating a favorable environment for the reproduction of rural areas, natural potential and the acquisition of high-quality and competitive agricultural products.

Innovative methods of organization of agrarian production are the result of the development of complex mechanization. Based on the scientific system of agrarian production, they are focused on obtaining high yields based on the rational use of biological, logistical and human resources. This involves the use in the production of high-performance agricultural machinery, optimization of fertilizer application, herbicides and other plant protection products, a comprehensive reclamation, the work of highly skilled specialists.

The investigated category of efficiency can be classified on various grounds: it takes into account the costs, flow of cash flows in time, completeness of the accounting of results and costs (Fig. 1)<sup>12</sup>.

The efficiency of innovation and investment activity of agrarian enterprises as a basic category reflects the economic relations and interests of participants in innovation and investment processes regarding the achievement of the optimal balance between the result of the exploitation of investments in innovation and the costs incurred. The accompanying effect from the introduction of technological innovations is the saving of labor costs and funds, which, in turn, contribute to reducing the complexity of production, the release of manpower, the reduction of specific production costs, and stimulate expanded reproduction and new investment.

In the global aspect, the innovative development of agricultural production, in addition, helps to eliminate existing contradictions between the city and the countryside, forms the material foundation for the transformation of agricultural labor into industrial. On this basis gradually there is a qualitative transition to a new professional and technical level of personnel of mass professions, who have the skill of efficient use of modern agricultural machinery and equipment.

The effectiveness of innovation and investment activity is shaped by the influence of objective and subjective factors, which is the subject of close attention from the side of economists. So, Nechaev VI, Artemov E.I. and Kravchenko N.P.<sup>3</sup> distinguish external and internal groups of factors.

<sup>1</sup> Orehova, M.S., Gurnovich, T.G. (2018): *Prioritetnye napravleniya razvitiya innovacionno-investicionnoj dejatel'nosti v rasteniyevodstve* [Priority directions of development of innovation and investment activity in crop production]. Moscow : Izd. dom «Mirakl'», p. 116.

<sup>2</sup> Coelli, T.J., Prasada Rao, D.S., O'Donnell, C.J. et al. (2005): *An introduction to efficiency and productivity analysis*. Second Edition. New-York : Springer Science, p. 331.

<sup>3</sup> Nechaev, V.I., Artemova, E.I., Kravchenko, N.P. (2010): *Problemy ocenki jeffektivnosti innovacionno-investicionnyh proektov v rasteniyevodstve* [Problems of efficiency evaluation of innovation and investment projects in crop production]. APK: jekonomika, upravlenie – AIC: economy, management, No. 12, pp.22-27.

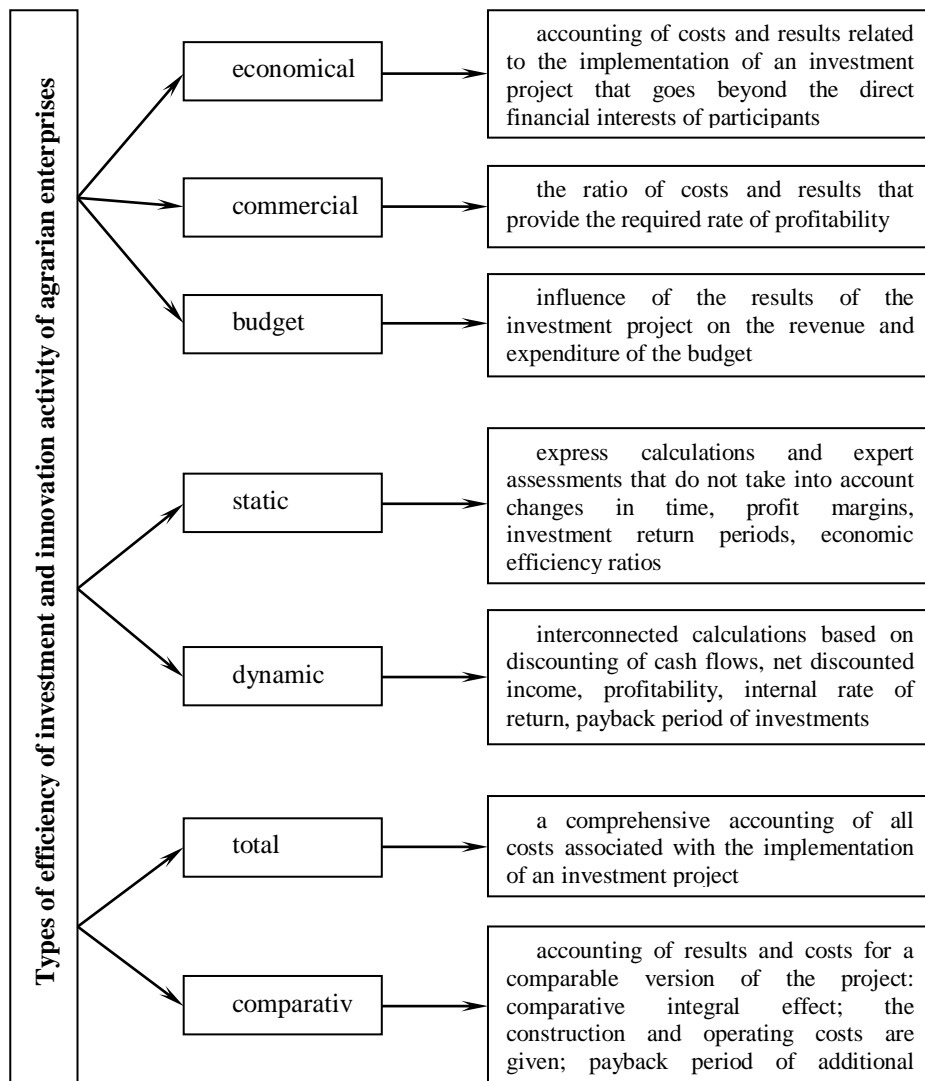


Fig. 1. Classification of efficiency of investment and innovation activity of agrarian enterprises

The external ones include:

- normative-legal regulation;
- provision of conditions for market competition in the domestic and foreign markets;
- state investment and innovation policy;
- pricing;
- taxation;
- lending;
- inflation processes;
- subsidies and compensation;
- creation of additional conditions for conducting private business;
- integration of the country into world economic relations;
- conformity of technical and technological parameters of production to world standards.

Internal factors include:

- achieved level of technical and technological development of the enterprise;
- degree of use of material, technical, labor, financial, investment and intellectual resources.

It should be noted that the large-scale introduction of innovative approaches in the production of agricultural products requires all branches of agriculture. This can be achieved by increasing their technical equipment, increasing labor power, rationalizing the use of equipment and personnel potential.

The effectiveness of innovation and investment activity is determined by a set of general

parameters that influence the results of its assessment, among which:

- kind of investments used;
- type of mastered innovations;
- goals to be achieved when introducing innovations;
- the value of the calculation period and the discount rate;
- innovative potential of the agricultural enterprise;
- the ability of the enterprise to implement innovations;
- the speed of the innovation process<sup>1</sup>.

The efficiency of innovation and investment activity of agrarian enterprises is influenced by a set of factors that form the technological, social, economic and environmental components of the efficiency of production of certain types of agricultural products.

As general indicators of estimation of results of production in agriculture can be used:

- production of gross output per hectare of agricultural land, on average annual worker, per 1 man-year, for 1 UAH of fixed assets and working capital;
- the amount of current production costs per 1 UAH of gross output;
- the amount of gross and net income (profit) per 1 hectare of agricultural land, on the average employee, per 1 man-year, for 1 UAH of fixed assets and working capital;
- the level of profitability and the rate of profit (net income) of agricultural production.

All these indicators together, with the allocation of any of them as the main or without allocation of such, give an opportunity to more fully characterize the efficiency of agricultural enterprises. They reflect reflection on the level and efficiency of using all types of resources and costs involved in production:

- land as the main means of agricultural production – the value of gross output, the amount of gross income, profit (net income) per unit of land;
- live labor – the value of gross output, the amount of gross income, profit (net income) per unit labor costs or the number of average annual employees;
- the past indefinite labor in the main means of production – the value of gross products, the amount of gross income, profit (net income) for 1 UAH of fixed assets;
- current production costs – the cost of gross output, payback of production costs, the level of profitability.

Consequently, the system of performance indicators should:

- reflect costs of all types of resources consumed by the enterprise;
- create preconditions for identifying reserves for improving production efficiency;
- to stimulate the use of all reserves available at the enterprise;
- Provide information on the production efficiency of all levels of the management hierarchy;
- perform a criterion function, that is, for each of the indicators should be defined rules for the interpretation of its values<sup>23</sup>.

Among the factors that influence the efficiency and, accordingly, determine the effectiveness and production introduction of innovation and investment activities of agrarian enterprises, can be distinguished the following groups: natural, technological, technical, organizational and economic, socio-demographic, and environmental.

Determining the factors of ensuring the efficiency of innovation and investment activity of agrarian enterprises (Fig. 2) due to the influence of politico-economic, natural-biological, techno-

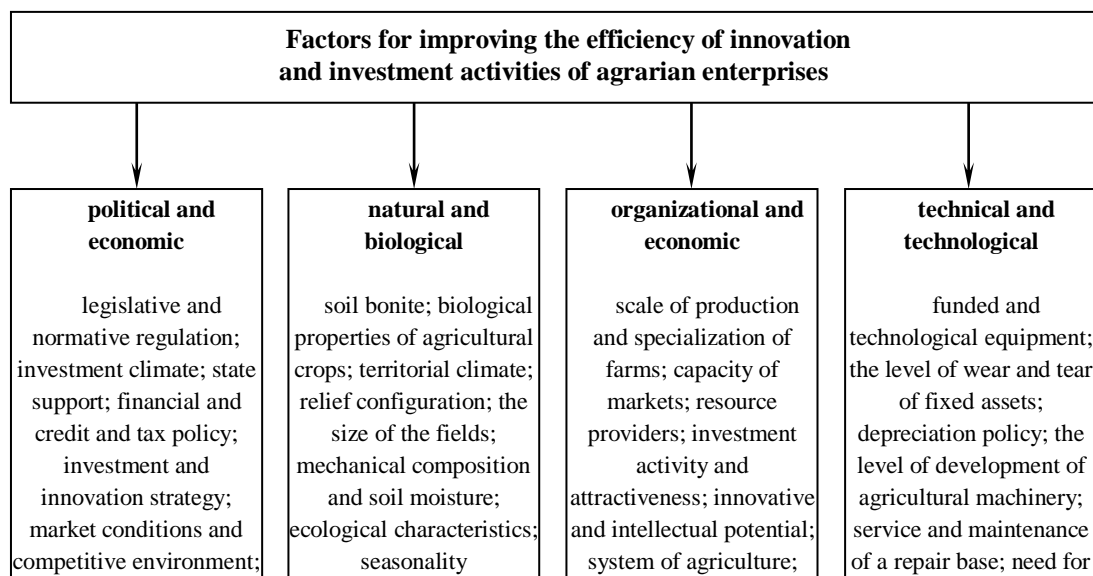
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<sup>1</sup> Lundvall, B.A. (1990): Innovation as an interactive process: from user-producer interaction to the national system of innovation. Technical change and economic theory. G. Dosi et al. (Eds.): London: Pinter Publisher Limited, p. 349-367.

<sup>2</sup> Azizov, S.P., Kaninskyi, P.K., Skupy, V.M. et al. (2001): Orhanizatsiia vyrobnytstva i ahrarnoho biznesu v silskohospodarskykh pidpriemstvakh [Organization of production and agricultural business in agricultural enterprises: studies]. S.P. Azizov (Ed.): Kyiv : IAE, p. 834.

<sup>3</sup> Kudelskyi, V.E. (2013): Ekonomichni zasady vyrobnytstva silskohospodarskoi produktsii pidpriemstvamy ahrarnoho sektora [Economic basis of agricultural production enterprises of the agricultural sector]. K.L. Larionova (Ed.): Ekonomika ta upravlinnia pidpriemstvom: suchasni pidkhody, metody ta modeli – Economics and enterprise management: modern approaches, methods and models. Kamianets-Podilskyi, pp. 133-161.

technological, organizational and economic processes<sup>1</sup>.



*Fig. 2. Factors influencing the efficiency of innovation and investment activity of agrarian enterprises*

These groups of factors are interconnected. The reproductive processes provided by innovation and investment activities are based on the use of investment resources, the acquisition of additional value and the transformation of its part into capital.

Among the conditions that determine the dynamics of innovation and investment processes are factors that both positively and negatively affect the development of agrarian enterprises.

Constraining factors that negatively affect innovation and investment processes in agrarian enterprises are: price disparity; strengthening monopolization in industries and criminalizing markets; unsatisfactory financial condition of producers and consumers of innovative products; the level of business taxation; Compression of domestic food demand; departmental disunity, weakness of scientific potential; backwardness of the material, scientific and information base; low wages, lack of trained personnel to innovate; aggravated competition in the agro-food market; insufficiency of financing of innovative projects and developments; shortcomings in the planning of innovation activities; underdevelopment of innovation infrastructure; inconsistency of interests of participants in the innovation process; orientation on the quick recoupment of innovative products being implemented.

Positive factors contributing to innovation and investment processes of agrarian enterprises are: the capacity of the food market; variety of forms of ownership and management; increase of state support; increase in the efficiency of innovation from all participants involved in bringing the agricultural product to the consumer; the best quality of agricultural products, obtained through the introduction of innovations, allows us to produce quality food products that meet world standards; achieved level of technical and technological development of the industry; availability of best practices in the use of innovative technologies; contests of innovative investment projects; formation of a positive image of enterprises in partners and society based on changes in the environmental and social environment as a result of innovation and investment activity<sup>23</sup>.

<sup>1</sup> Orekhova, M.S., Gurnovich, T.G. (2018): *Prioritetnye napravleniya razvitiya innovacionno-investicionnoj dejatel'nosti v rastenievodstve* [Priority directions of development of innovation and investment activity in crop production]. Moscow : Izd. dom «Mirakl'», p. 116.

<sup>2</sup> Mykytiuk, P.P. (Ed.): (2015): *Innovatsiyni rozvytok pidpriemstva* [Innovative development of the enterprise]. Ternopil : PP «Prynter Inform», p. 224.

<sup>3</sup> Vytvytska, O.D., Kulaiets, M.M., Babiienko, M.F., Buzovskyi, Ye.A. (2009): *Innovatsiini protsesy v aharnomu sektori ekonomiky* [Innovative processes in agrarian sector of economy]. *Ekonomika APK – Economy AIC*, No. 9, pp. 26-30.

Investment support for the innovative development of agricultural production is objectively necessary to increase the level of food independence of the state and the competitiveness of the industry's products in the market of agricultural raw materials and food. In addition, the innovative restoration of the material and technical and technological base of agricultural production contributes to the comprehensive modernization of all functional subsystems of the reproductive cycle: management, service, marketing, organizational, environmental, socio-economic. The low investment opportunities of agricultural producers, the devaluation of their resource potential and the level of its use on an innovative basis, actualize the task of introducing the achievements of scientific and technological progress in the development of production on the basis of external stimulation of innovation activity.

The steady renewal of production potential on the basis of the introduction of innovations necessitates the introduction of efficient resource-saving technologies for the production of agricultural products.

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## 1.8. STATE SUPPORT OF INNOVATIVE ACTIVITY IN AGRICULTURE OF UKRAINE

The agrarian industry is not only the engine of national economy, but also the driver of economic progress; it is one of the most perspective branches of economy. However, for the successful development it needs weighed and the balanced state policy and support.

Ensuring the sustainable in the context of globalization and increasing competition in the world market depends on the activation of investment processes, the creation of mechanism for innovation development.

In the agrarian sphere of the economy, the development of the innovative vector is hampered by the impact of the legislative framework and insufficient state stimulation of innovative activity, the limited internal and external sources of financing of innovations and the impossibility of their rapid mobilization, the low level and the attractiveness of the industry.

Therefore, addressing issues that impede the innovation industry is a priority and strategic task of the country and are of particular importance.

Strategy research the statement of innovative model of development of the agrarian sector of Ukraine, the state support of the agricultural enterprises it was paid much attention by such scientists as: S.A. Volodin<sup>1</sup>, M.V. Prisyaznyuk<sup>2</sup>, T.G. Marenych<sup>3</sup>, O.A. Lutsenko, L.A. Polyvana, N.V. Ryzsykova<sup>4</sup>, T.V. Kalashnik<sup>5</sup> and other. In particular S.A. Volodin emphasized that the main question when developing and introducing the innovative model of development is creation of the mode of stimulation of the innovative policy in the state focused on economic creation of the knowledge-intensive sphere, providing economic, infrastructure and institutional prerequisites of transition to innovative model of development. T.G. Marenych, O.A. Lutsenko proved need and expediency of support of activity of the agricultural enterprises from the state in technical questions updating. The question of state regulation and activation of investments into agrarian and industrial complex was considered by Onegina V.M.<sup>6</sup>

However, a problem of the state support of activation of innovative processes, including innovative development of agrarian and industrial complex remains unresolved and needs in further researches in this direction.

It is well-known that the important instrument of stimulation of development of the country is introduction of innovations in economy, by means of innovative developments Ukraine can increase productivity of economy and competitiveness in the world markets. Development and introduction of innovations actually provide scientific research and technical developments (SRTD): Therefore, for the purpose of increase in level of economic growth, Ukraine has to stimulate development of SRTD.

According to Euro stat and OECD expenses on SRTD is a key indicator which reflects the level of the innovative efforts made by the country. Besides, to have an opportunity to compare

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<sup>1</sup> Volodyn, S.A. (2007): Teoretiko-metodologichni ta organizacijni zasady innovacijnogo provajdingu na naukoemnomu agrarnomu rinku [Theoretical and methodological and organizational principles of innovative provisioning on science-intensive market]. Kyiv: ZAT Nichlava, p.384.

<sup>2</sup> Prisyaznyuk, M.V., Zybets M.V., Sablyk P.T. et al. (2011): Agrarnyj sektor ekonomiki Ukraini [Agrarian sector of Ukrainian economics]. Kyiv: NNTS.IAE., p.1008.

<sup>3</sup> Marenich, T.G., Zaika, S.O., Lutsenko, O.A., Polyvana, L.A., Birchenko, N.O. (2019): Gosydarstvennaya podderzska tehničeskogo obnoveniya selskogo hozsyajstva [State domainal support of technical update renovation agriculture]. *Internationalnij journal innovatsionnyh tehnologiy - International journal of innovative technologies in economy*, № 5 (17), pp. 79-83.

<sup>4</sup> Ryzsykova, N.I. (2017): Upravlinnya innovatsionno-investytsijnoju diyalnistyu pidpryemstv i obednan agropromislovogo virobnitstva: strategii, mehanizmi ta instrumentarij [Management of innovative and investment enterprises activity of agricultural production: strategy, mechanisms and instruments]. Kharkiv: Smygasta typografiya, p. 321.

<sup>5</sup> Kalashnikova, T.V. (2014): Udoskonalennya derzsavnoj pidtrimki agrarnih pidpriemstv v umovah globalizatsii [State support siprovment of agrarian enterprises at the globalization]. Kharkiv: Smygasta typografiya, p.280.

<sup>6</sup> Onegina, V.M. (2008): Gosudarstvennoe regulirovanie i aktivizatsiya investitsij v APK Ukraini [State support and activation of investments in APC in Ukraine]. Moscow: VIAP "Entsiklopediya rossijskih dereven", pp.547-549.



such efforts between the countries, for assessment of level of innovative activity use an indicator of specific weight of expenses of SRTD in GDP of the country (tab. 1)<sup>1</sup>.

*Table 1. Indicator of specific weight of expenses of SRTD in GDP per selected countries*

Countries/Years	2010	2011	2012	2013	2014	2015	2016	2017
EU28	1,93	1,97	2,01	2,02	2,03	2,04	2,03	...
Bulgaria	0,56	0,53	0,60	0,63	0,79	0,96	0,78	...
Estonia	1,58	2,31	2,12	1,72	1,45	1,49	1,28	...
Spain	1,35	1,33	1,29	1,27	1,24	1,22	1,19	...
Latvia	0,61	0,70	0,66	0,61	0,69	0,63	0,44	...
Lithuania	0,78	0,90	0,89	0,95	1,03	1,04	0,85	...
Germany	2,71	2,80	2,87	2,82	2,87	2,92	2,94	...
Poland	0,72	0,75	0,88	0,87	0,94	1,00	0,97	...
Romania	0,46	0,50	0,48	0,39	0,38	0,49	0,48	...
Slovakia	0,62	0,66	0,80	0,82	0,88	1,18	0,79	...
Slovenia	2,06	2,42	2,57	2,58	2,37	2,20	2,00	...
Hungary	1,15	1,19	1,26	1,39	2,35	1,36	1,21	...
Czech Republic	1,34	1,56	1,78	1,90	1,97	1,93	1,68	...
Ukraine	0,75	0,65	0,67	0,70	0,60	0,55	0,48	0,45

Despite a series of the adopted normative legal acts which provide budgetary appropriations on science of 1,7% of the sum of GDP a role of the state budget of off-budget funds and local budgets in development of innovative activity it is insignificant. Average gross expenses on SRTD in the countries of OECD make 2,3% of GDP, and in EU countries – 1,91%.<sup>2</sup> Besides, in the countries of Organization for Economic Cooperation and Development and the EU there are not enough countries which invest less than 1% of GDP in SRTD. Generally, the countries on average specified show a tendency to increase in specific weight of SRTD in GDP whereas in Ukraine opposite changes are observed. It is necessary to notice that the country does not pay enough attention to problems of development of domestic science which remains too sharp for today, and from the point of view of domestic scientists has also the menacing character and if not to take appropriate measures can have fatal value in the future for our power<sup>3</sup>.

The indicator of domestic scientific and technical potential reached critical value in 2018 rubles that demonstrates threat of national security of Ukraine. The share of scientists among the busy population reaches in Ukraine 0,49% in 2019 rubles and is the lowest in Europe. So, in Finland this indicator was – 3,27%, in Denmark – 3,16%, Iceland – 2,96%, Turkey – 0,68%.<sup>7</sup>

Expenses of the state budget on scientific and technical activity considerably decreased from 5,2% in 2014 up to 3,2% in 2018 rubles, as from the general fund which is more or less guaranteed, and from special (tab. 2)<sup>4</sup>.

Expenditures of the country budget for scientific and technical activities significantly decreased from 5,5% in 2014 to 3,2% in 2019, as from the general fund, which is more or less guaranteed, and with special (table 2)<sup>9</sup>. And the share of expenditures on the program of fulfillment of obligations of Ukraine in the framework program of the European Union on scientific researches

<sup>1</sup> Sait statystichnogo byuro ES [Site of statistical bureau] epp.eurostat.ec.europa.eu. Retrieved from <http://epp.eurostat.ec.europa.eu/>

<sup>2</sup> Sait statystichnogo byuro ES [Site of statistical bureau] epp.eurostat.ec.europa.eu. Retrieved from <http://epp.eurostat.ec.europa.eu/>

<sup>3</sup> Makarenko, P.M. (2008): Tsinova polituka yak factor pidvysctenna dohodnosti agrarnogo virobnstva v umovah svotovoj organizatsiji torgivli [Price politics as factor of income of agrarian production at the conditions of World trade organization]. Ekonomika APK – Economy AIC, № 5, pp. 44-48 Retrived from [http://nbuv.gov.ua/UJRN\\_apk\\_2008\\_5\\_12](http://nbuv.gov.ua/UJRN_apk_2008_5_12).

<sup>4</sup> Sait Verhovnoj radi Ukraini [Site of sovereignty in Ukraine] search.ligazakon.ua. retrived from: [http://search.ligazakon.ua/l\\_doc2.nsf/link1/T172246.html](http://search.ligazakon.ua/l_doc2.nsf/link1/T172246.html).

and innovations- "Horizon 2020" remains scarce and is 1%. These tendencies are extremely threatening, indicating the urgency of resolving the issues of resource provision of science, as otherwise other economic entities will not have enough motivation to invest in scientific and technical activities in the country, ultimately, will accelerate the outflow of domestic science young and middle-aged specialists.

Concerning the specific weight of expenses on scientific and technical activity among all expenses of the state budget in the total amount of expenses, they are characterized by a tendency to decrease from 1,6% in 2012 up to 0,75% in 2019 too. However, it is necessary to notice that the percent of expenses from the general fund is smaller than from special fund. That demonstrates that the country has potential opportunities for redistribution of means in favor of science, but prefers to consider it as space for economy. Financing from off-budget fund is a certain compensator of insufficient budgetary financing; however, the science does not possess a sufficient imperious resource to use for providing market services.

*Table 2.* The approved volumes of some items of expenditure of the Ukrainian budget on science on the Ministry of Education and Science and the Ministry of agrarian policy, one billion UAH<sup>1</sup>

Indicators / Years	2014	2015	2016	2017	2018	2019	2019 y % 2014
Expenses, in total	462,2	581,7	681,4	841,4	991,9	1,112	240,5
Ministry of Education and Sciences	25,6	25,4	26,0	32,6	31,8	42,1	164,4
Percentage	5,5	4,4	3,8	3,9	3,2	3,8	69,0
Fulfilling Ukraine's commitments in the European Union Framework program for research and Innovation "Horizon 2020"	-	-	0,02	-	0,3	0,3	-
Percentage	-	-	0,03	-	0,03	0,03	-
Research, scientific and scientific-technical developments, performance of works on state target programs and state orders, implementation of international scientific and technical programs, projects by higher educational establishments and scientific institutions, Training of scientific personnel, financial support of scientific infrastructure and objects constituting national heritage	0,5	0,5	0,6	0,8	0,9	0,9	
Percentage	1,9	1,9	2,3	2,4	2,8	2,1	110,5
State Agency for Science, Innovation and informatization of Ukraine	0,2	-	-	-	-		
Percentage	0,8	-	-	-	-	-	-
Ministry of Agrarian Policy and Supplies of Ukraine	8,5	2,1	2,1	9,4	12,0	13,8	162,3
Percentage	1,8	0,3	0,3	1,1	1,2	1,2	66,6
Research, applied scientific and technical developments, performance of works on country target programs and orders in the sphere of development of agro industrial complex, training of scientific personnel, scientific development in the field of standardization and certification of agricultural products, researches and experimental development in the field of agricultural sector	0,1	0,08	0,09	0,1	0,1	0,1	
Percentage	1,2	3,8	4,2	1,1	0,8	0,7	58,3

<sup>1</sup> Sait Verhovnoj radi Ukraini [Site of sovereignty in Ukraine] search.ligazakon.ua. retrived from: [http://search.ligazakon.ua/l\\_doc2.nsf/link1/T172246.html](http://search.ligazakon.ua/l_doc2.nsf/link1/T172246.html).

For agriculture, the development of innovative-oriented production is important, because the dynamic and effective development of agriculture should be not only a general economic precondition for successful decision of accumulated problems in the industry, but also the way of systemic coordination of growth of gross domestic product, increase food security of the country.

Today, the regulatory framework has been developed to regulate scientific and investment activities. The legal basis for the formation and implementation of priority areas of innovation activity is the constitution of Ukraine, the laws of Ukraine on "Science and Science and technology activities", law "On innovation Activity", law «on priority areas of science and engineering», "on priority areas of innovation activity" and others regulating relations in innovative and scientific-technical spheres, in particular, the concept of scientific, technological and innovative development", the concept of development of the National Innovation System etc.

Thus, in art. 7 "Strategic priority directions of innovation activity" of the law "On the priority directions of innovation activity" is one of the main strategic priorities was determined by the high-tech development of agriculture "<sup>1</sup>.

The concept of scientific, technological and innovative Development of Ukraine envisages the development of modern technologies and techniques in the first place of the agro industrial complex, as one of the highest priority areas of country support in the field of technological development<sup>2</sup>.

In addition, developed a strategy for innovative development of the country to 2030; to ensure the stimulation of innovation activity and the commercialization results of scientific and technical developments, the Development Fund of Innovation were created, which funded 50 million UAH, but its activity was suspended in 2014.

It should be noted that the regulations on creating favorable conditions for development of innovation activity and all its subjects are implemented not to the fullest extent and this negatively affected the dynamics of innovative processes in Ukraine. Analysis of the normative and legal regulation of innovation activity in Ukraine shows that the general legislation that establishes the fundamentals of the country policy in the field of innovation is sufficiently developed, but it is mainly declarative because it does not offer effective mechanisms for ensuring implementation of the country policy in the sphere of innovation activity at the level of special normative and legal acts. The mechanisms of indirect country policy do not exist; although, the block of financial legislation allows to do it. Also, almost none of the documents has the tasks of its own innovative development of agroindustrial complex, but some of its directions can be fundamentally based on the idea of innovative development.

Nowadays, Ukraine has not yet formed a national strategy for innovative Development; although<sup>3</sup>, its project and unrealized developed by international experts- "Digital Agent 2020" is submitted.

In the global ranking of innovation Ukraine took 50 place "Impact on Global Innovation ", Ukraine occupies 52 place from 56 in the world on innovative indicators, and in Central and Eastern Europe-the last one<sup>4</sup>. As a result of the annual rating of Global Competitiveness Year book 2018, Ukraine ranked 60 among 63 countries<sup>5</sup>. This negative trend towards innovation and competitiveness of the national economy affects many industries and demonstrates the extreme

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<sup>1</sup> Zakon Ukrainy "Pro prioritetni napryami innovatsijnoj diyalnosti Ukrainy" [the law of Ukraine "On priority areas for innovation of Ukraine]. Zakon.rada.gov.ua. Retrieved from <http://zakon.rada.gov.ua/go/433-15>

<sup>2</sup> Kontseptsija naykovo-tehnologichnogo ta innovatsijnogo rozvitky Ukrainy [ Conception of csients-technological and innovative development of Ukraine]. Zakon.rada.gov.ua. Retrived from <http://zakon.rada.gov.ua/go/916-14>.

<sup>3</sup> Kontseptsija naykovo-tehnologichnogo ta innovatsijnogo rozvitky Ukrainy [ Conception of csients-technological and innovative development of Ukraine]. Zakon.rada.gov.ua. Retrived from <http://zakon.rada.gov.ua/go/916-14>.

<sup>4</sup> Sait Globanogo rejtingy innovatsijnosti [Site of Global Competitiveness Report] veforum.org.dogs. Retrived from <http://www3.weforum.org/docs/GCR2017-2018/05Full Report/TheGlob>

<sup>5</sup> Pozsitsiya Ukrainy v rejtingy srtn svity za indeksom konkrentospromozhnosti [Position Ukraine ]Ukraine's position in the ranking of countries in the competitiveness index of the world. edclub.com.ua. Retrived from <http://edclub.com.ua/analytika/pozycja-ukrayini-v-reytyngu-krayin-svitu-za-indexsom-globalnoyi-conkurentospromozhnosti-1>.

importance of resolving this issue for the agrarian sector, which has a significant potential of foreign economic and integrates into the world market- that is the result of underfunding of science.

However, according to the studies conducted in the framework of the state program for forecasting scientific, technical and innovative development, it was noted that the scientific potential of the agrarian sector of science, with the necessary investments, provides an opportunity to enter the world level in such fields of science and technology as plant and animal breeding, innovative biotechnology, environmental preservation, etc.<sup>1</sup>

To accelerate the innovative development of its economy, the EU set a goal to achieve in 2020 The level of funding of science in the middle of the Union in volumes that correspond to 3% of GDP, some of which have exceeded this figure of knowledge-intensive GDP, and in Ukraine, this indicator continues to decline and is 0,2% of GDP, ie, is the level of poorest countries in Europe. In this context, we consider it expedient to renew the work of the State Agency for Science, Innovation and informatization and to resume work of the State fund, which will support innovative projects in AIC.

Realization of an innovative vector of activity agriculture enterprises are possible only with the active participation and support of the state, which should: create conditions that allow all market actors to develop them, promote and implement it in production; to provide favorable legal, institutional conditions for innovative development of agricultural enterprises and stimulate innovation; to act as a business entity and organizer of centralized capital investments into innovation activity and to stimulate and generate demand for innovative products, to fulfill functions of its customer<sup>2</sup>.

However, state support of the agrarian sector concentrates around such areas: development and implementation of various agricultural development programs support for agricultural. Subsidy, subsidies, subventions; providing agriculture enterprises of loans (on preferential terms); insurance agriculture activities Development of grain production<sup>3</sup>.

Thus, in 2018 the total amount of state support for agriculture amounted to UAH 6,3 billion.: Of which 4 billion UAH – Livestock development, UAH 1 billion. – Development of farming, 1 billion UAH. – Compensation of the cost of purchased agriculture Equipment of domestic production, 300 million UAH. – Gardening, 117,9 million UAH<sup>4</sup>.

The main problems of state support for innovation activity in Ukraine include: lack of trust in the state in this area by agricultural producers; insufficient level of influence of budget policy measures for the development of domestic agriculture, insufficient level of financial support, etc<sup>5</sup>.

The existence of the problem of financing innovation is connected with the fact that domestic investors do not have appropriate incentives to invest in the development of innovation activities, and foreign investors do not have the guarantee and protection of financial investments. Budgetary funding does not satisfy the existing financial needs of innovative development. In this case, in our opinions, it is advisable to develop a system of venture investment, which is the basis of dynamic development of the innovative market and important extra-budgetary sources of financing. On the

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<sup>1</sup> Pozsitsiya Ukrayiny v rejtingy srtn svity za indeksom konkrentospromoznosti [Position Ukraine ]Ukraine's position in the ranking of countries in the competitiveness index of the world. edclub.com.ua. Retrived from <http://edclub.com.ua/analytyka/pozycja-ukrayini-v-reytyngu-krayin-svitu-za-indexsom-globalnoyi-conkurentospromozhnosti-1>.

<sup>2</sup> Zsmerenetsky, A. (2017): Innovatsiyi abo smert: yak biznesu vyzsyty na tonuchomy korabli [Innovation or died: how business survive on a sinking ship]. Epravda.com.ua. Retrived from <http://www.epravda.com.ua/publication/2017/08/16/628080/>.

<sup>3</sup> Kysil, C.C. (2018): Derzsavne regylyuvannya finansovogo zabezpechennya innovatsijnogo rozvytku silskogospodarskuh pidpriemstv [State support of financial providing of innovative development of agricultural enterprises]. Yang Saents - Young science, № 5(57), pp.295-297.

<sup>4</sup> Sait Verhovnoj radi Ukraini [Site of sovereignty in Ukraine] search.ligazakon.ua. retrived from: [http://search.ligazakon.ua/l\\_doc2.nsf/link1/T172246.html](http://search.ligazakon.ua/l_doc2.nsf/link1/T172246.html).

<sup>5</sup> Panyhin, O.V. (2017): Napryami ta shlyahi transformatsiyi derzsavnoyi pidtrumku sybektiv agrarnoyi sfery Ykrayiny [Ways of transformation of state support of agrarian sectors subjects in Ukraine]. Aktealni problemy innovatsijnoyi ekonomiki – Actual problem of innovative economy, № 1, pp. 5-10.

one hand, Ukraine has a significant venture potential, and on the other, the tax legislation is still more suited to the needs of venture business.

The experience of the leading countries-economic leaders: Great Britain, France, Germany, USA, Japan, Switzerland and others testifies about effective state intervention in innovative processes. Direct state funding not less than 50% of all innovation costs are disseminated in France and the United States; The provision of free loans in the amount of 50% for the introduction of innovations used by Sweden and Germany; grants apply to all these countries; creation of innovation funds, taking into account possible risks used in France, Switzerland, the Netherlands; Interest reduction in state duty for private inventors Germany, Austria and the United States; exemption from fee payment if the invention relates to energy savings.

In world practice, preferential discounts are also used to stimulate innovation activities: deferred tax payments as a result of additional costs for innovative purposes; reduction of tax on the amount of cost growth for innovative purposes; exemption from income tax received as a result of implementation of innovative projects for several years; preferential taxation of dividends on shares of enterprises that are engaged in innovative activities; reduction of income tax in order to send reserve funds to state-ordered and general scientific-research and developmental developments; granting privileges to projects which are performed on priority programs; decrease in taxable profit for the cost of equipment and devices transferred to higher education institutions, research institutes and other innovative organizations; deduction from profit to taxation of charitable fund contributions, which are related to innovation financing; enrollment of the tax share of the innovation organization's profit to special accounts with the following use for innovative purposes. The last activity is the only one used in Ukraine.

All country support measures should have a comprehensive, systematic nature, perform a strategic and innovative function, to promote not only economic growth, but also increase the living standards of the population. In this regard, it will make sense to do the following steps:

- to establish a priority of the state scientific and technical policy in the agrarian sector;
- to resume work fund of support of innovations in the agrarian sphere;
- to constantly trace and fill up banks of scientific and technical projects in agrarian and industrial complex;
- to investigate the market of the knowledge-intensive products, to apply methods of innovative management, integration of science and production;
- to keep development of systems of information and consulting services in agrarian and industrial complex which promotes wide circulation of scientific consultation and provides with scientific and technical information of different producers;
- to exercise accurate control by results by results of innovative policy;
- to develop the system of increase in intelligently personnel potential of agrarian economy;
- additional financing of the organizations which develop and sell innovative products, etc.

Thus, in order to increase the effectiveness of work of the agrarian sector of economy with use of innovative opportunities have to become: Recognition of innovative development of agro-industrial complex strategically important for development of the country; Increase and concentration of budget support on the directions which are connected with innovative activity; stimulations of the price policy, credit and tax mechanisms of stimulation of innovations; creation of a system of tax, institutional and social motivators at each stage of innovative process; active participation in the international technological exchange, organization of various modern innovative structures (scientific agro-industrial research centers, venture enterprises, etc.)

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## **1.9. ASSESSMENT OF COMPETITIVENESS OF AGRICULTURAL PRODUCT: METHODOLOGICAL ASPECTS**

Globalization and innovative has changed the world economy and influence on its further transformation. Due to the WTO estimations, in 2017 merchandise trade grew by 11% in value terms (reached US \$ 17,73 trillion): by 4,7% in volume terms. Countries have become more depended on each other in many dimensions: economic, technological, social, ecological. The Resolution of UN (2015) “Transforming our world: the 2030 Agenda for Sustainable Development” defined seventeen goals for efforts of society for sustainable development in the global economic space. Agriculture, “connecting planet and people”, contributes to the economic growth, the reduction of hunger, poverty and inequalities, implementation of climate action, saving life on the land and clean water, generation of affordable, clean energy and innovation.

The development of agriculture, its ability to contribute to the achievement of sustainable development goals in countries with a strong resource potential of agricultural production depend on the competitiveness of its production in both domestic and foreign markets.

Ukraine has the rich resource potential of agricultural production, and agriculture is vital important for the Ukrainian economy. There was created 12,9 per cent of gross value added in agriculture in Ukraine in 2017.

However, trends of globalization and innovations rise the set of requirements in terms of competitiveness of national economies, their industries, products. In the management of competitiveness, its evaluation plays important role. Both enterprise management and state agricultural policy makers need to monitor and evaluate the competitiveness of products and their potential, to develop a set of actions to keep competitiveness in the global competitive space, do not lost market positions and income.

Various aspects of the competitiveness of agricultural products have been highlighted in the research of O. Krasnorutsky, S. Kvasha, O. Luka, N. Patyka, O. Shkolny, A. Shchepitsen and other. Many experts paid attention to the cost-price competitive advantages of agricultural products of Ukraine in the world market. Biggest part of research submitted assessments of share and positions of particular product in the market. S. Kvasha, O. Luka (2003) presented calculations of indicators of relative export advantages (RXA): relative import advantages (RMA): revealed competitiveness (RC): revealed competitive advantages (RCA): relative trade advantages (RTA): confirmed the competitiveness of Ukrainian agricultural products as a whole and the main types of agricultural products (cereals, sunflower seeds and sunflower oil, beef, butter, skim milk powder) in the world market. It should be noted that the calculation of these indices is based on the actual indicators of exports and imports of a certain type of product in a certain country, their share in world exports and imports, and these indicators reflect the actual competitiveness of the industry or its products in the world market, but do not allow to establish factors of such competitiveness and assessing potential competitiveness. A. Shchepitsen (2003) developed the concept of potential competitiveness of agrarian enterprise.

N. Patika (2019) suggested the methodological basis for calculating the integral index of competitiveness for dairy products.

The indicators Private Resources Cost (PRC) and Domestic Resource Cost (DRC): developed by M. Bruno in 1960s and have been used by many researchers for the last half of century, for example, by I. Tsakok, D. Greenaway, C. Millner, are based on the approach of comparison of alternative value of resources (domestic prices for PRC or world market prices for DRC) and actual costs of production of particular producer for evaluation of the competitiveness. By using the calculations of this indicator, an assessment of the competitiveness of agricultural production in Slovenia and Hungary was made (“Competitiveness of agricultural enterprises and farm activities in transition countries”, 2000): which revealed the relative nature of the current competitiveness of some agricultural products in these countries and the lack of real advantages of them for the future.

The competitiveness studies also developed different structural and graphical methods. There are very popular “a radar of competitiveness”, “a polygon of competitiveness”, Matrix of Boston

Consulting Group and many other. But existed variety and lack of systematization of competitiveness assessment methods caused many difficulties to use them in practical management.

The purpose of this study is to summarize and systematize methodological approaches to assessment of the competitiveness of agricultural products and to develop the approach of express assessment of potential competitiveness due to the criteria of efficiency on the foundation of alternative value (opportunity cost) of resources used.

For the study the following methods were used: abstract-logical, including analysis and synthesis, comparison, indices methods, theoretical modelling. The database of State Statistical Service of Ukraine was analysed.

A review of scientific publications on competitiveness issues, practical aspects in this field gave reason to argue that competitiveness is a complex concept that embodies a set of characteristics and is applied to both types of products and enterprises, industries, regions, national economies. Complexity, multi-levels in the space (micro-, macro-, mezzo-, mega-levels) and time (static and dynamic) of the category “competitiveness” explain the existence in the economic literature of its various definitions, criteria, methods of assessment. There is a differentiation of competitiveness and its evaluation depending on the geographical levels of markets (regional, national, world):

The competitiveness of a product is considered in this research as a set of its properties which provide its advantages in comparison with products of competitors, sustainability and efficiency of its production and sale.

The competitive advantages and the attractiveness of products express in the capture of the producer certain position in the market, certain market share. Therefore, the competitiveness is often associated with the ability of an enterprise (industry) of holding a certain share in the regional, domestic and international markets. Accordingly, the potential competitiveness of the enterprise (industry) is related to the keeping or increasing its market share at the appropriate level of market in the future.

Summarizing and developing the work of scientists (T. Cygankova, A. Ishchenko) regarding to the criteria of competitiveness, we offer the following composition of criteria of the competitiveness of agricultural products:

- sustainability of production and sales, significant and increasing volumes, share in relevant commodity regional, national and international markets;
- efficiency of production and sales, absolute and comparative advantages, cost-price competitiveness;
- quality of production and its compliance with standards;
- financial security of production and sales;
- ecological friendliness of production and product, which assumes the production without the use of substances and technologies harmful to humans and the environment, product safety, since it is grown without the use of chemical synthesis substances, does not contain genetically modified organisms, pathogens, allergenic components, and keeps its nutritional and taste properties;
- product innovation, its novelty for regional, national and world markets,
- reputation of the producer, its brand and product,
- fairness of competition, abilities of producers to maintain a market share of the product without the artificial tools and actions (in particular, protectionist) that distort the market mechanism.

Indicators of competitiveness assessment by the proposed criteria are given in Table 1.

Note, that the proposed list of criteria and indicators of the assessment of competitiveness of products is not finished, and it might be specified for different type of products or special tasks of study.

Main reasonable steps of competitiveness assessment are following:

- determination of the scope of evaluation, choice of a comprehensive or partial assessment of competitiveness (by separate criteria, indicators);
- formation of a set of evaluation indicators;



- calculation of evaluation indicators;
- generalizations and conclusions regarding the state and potential of competitiveness, possible consequences;
- development of plan of actions to strength competitiveness.

*Table 1. Criteria and indicators of competitiveness assessment*

Criteria	Indicators
Sustainability	Growth rate of production Market share Growth rate of market share Share of exported product Growth rate of export RXA, RC, RCA, RTA
Efficiency	Profitability of production Prices ratio (the ration of price of product to the market price) Cost ratio (the ratio of cost of product to the lowest (average) costs of the same product in the market) DRC, PRC
Quality of product and packaging, standard correspondence	Degree of correspondence of the product quality to the national standards Degree of correspondence of the product quality to the international standards Share of product of extra and high class in the total production
Financial security of production and sales	Liquidity indicators Solvency indicators Profitability of producer Financial efficiency indicators Investment in the production and marketing of the product, rate of investment growth
Ecological	Share of organic product Share of product, produced with ecologically friendly technologies
Innovative	Period of renewal product, last changes of the production
Recognition of brand and reputation of producer	Index of brand development, penetration of brand
Fairness of competition	Index of economic freedom

Different methods can be used to calculate competitiveness indicators, including: average values; indices; rates; ratios; expert estimates; ranking; rating, etc. The calculations of integral indicators and/ or graphical methods are used in the case of a comprehensive assessment of competitiveness or by certain criteria, which involves the influence of several factors and, accordingly, the calculation of several indicators.

A big set of indicators of assessment of multi-criterion competitiveness exceed the scope of this study, therefore, it focuses further on the one aspect of assessment of competitiveness.

The authors of the book "Competitiveness of agricultural enterprises and farm activities in transition countries" (2000) stressed important meaning of efficiency of production for the competitiveness. D. Epstein pointed out that "economic efficiency and competitiveness are obviously one-rank concepts in a market economy" and added that "an enterprise cannot be competitive for a long period of time without being cost-effective."

The most common used indicator of efficiency of production and sales are its profitability. But prices fluctuations can lead to the substantial changes in the profitability and competitiveness. This indicator does not reflect the potential of competitiveness.

Above mentioned indicators PRC and DRC, comparing the opportunity cost of the primary factors (land, labour and capital) used in the production of certain commodity with value added in alternative or border prices better reflect the potential of competitiveness, indirectly providing information on the conditions of used resources renewal, possibilities for the development of the production.

But the technique of calculations of these indicators (PRC, DRC) is very demanding in its data requirements. These indicators are widely-spread for the research but their use is not very popular for usual management practice. The approach of opportunity costs might be used in more suitable way to estimate potential of competitiveness; we will consider this method by using the example of Ukrainian export of agricultural product.

Export of agri-food products is important for the Ukrainian economy. It provides up to 42% of the value of merchandize exports of Ukraine, stimulates the profit generation of agricultural enterprises (Table 2).

*Table 2. Indicator of export of agri-food product and profit of agricultural enterprises in Ukraine*

Indicators	2013	2014	2015	2016	2017
Export, US \$ billion	17.0	16.7	14.6	15.3	17.8
Share of export of agri-food product in total merchandize export, percent	26.9	31.0	38.3	42.0	41.1
Profit, UAH million	14926	21413	101912	89816	78456
Profitability of agricultural production, per cent	11.7	21.4	43.0	33.6	23.5

The main competitive advantage of Ukrainian agricultural products is the relatively low price level. According to the different estimates and different types of agricultural products, prices for Ukrainian agricultural products are normally lower by 10-40% compared to EU market prices. Ukraine's opportunities to supply agricultural products at lower world prices are driven by a lower level of actual production costs, especially of labour costs.

The wages in Ukraine are lowest among European countries. But it should be noted that the level of wages in the agriculture of Ukraine is much lower not only in comparison with the developed countries, but also lower than the average level in the Ukrainian economy. In 2017, average monthly wage in agriculture amounted to UAH 5761, while in the whole economy - UAH 7104. That is, in agriculture the Ukrainian workers got the wages lower than the average in the economy by 1.23 times. If we compare the wage rates in agriculture in Ukraine and in the US, it turns out to be 9.40 times lower (\$ 1.38 per hour in Ukraine versus \$ 12.98 per hour in the United States):

The situation of lower price of labour in the Ukrainian economy leads to a reduction in the agricultural workforce, threatens its further shortage, increases its value and loses competitive advantage. Thus, the alternative cost of resources must be taken into account for assessing the competitiveness of products, based on the criterion of its efficiency.

The theoretical modelling of changes of cost due to approach of opportunity costs is based on the analysis costs structure and its modification. Costs structure of agricultural product (service) in agricultural enterprises in 2017 in Ukraine (due to the official data of State Statistical Service of Ukraine) is reflected in Table 3.

Table 3. Costs structure of agricultural product (service) in agricultural enterprises in 2017

Element of costs	UAH million	Per cent
Costs- total	404970.2	100.0
Direct costs – total including	242313.7	59.8
Seeds and planting materials	30559.9	7.5
fodder	41772.9	10.3
Other agricultural products	5727.9	1.4
Inorganic fertilizers	49685.1	12.3
Oil products	30925.4	7.6
Electric power	3167.7	0.8
fuel	4190.8	1.1
Repair and construction materials	18613.8	4.6
Labour costs	20326.7	5.0
Other direct costs – total including	79262.1	19.6
Deductions on the social purposes	4416.7	1.1
Rent payments for land shares	36062.2	8.9
Rent payments for property shares	442.2	0.1
Depreciation of fixed assets	19176.6	4.7
Indirect costs - total	63067.7	15.6

For assessing the changing costs of agricultural production in Ukraine, the actual costs of the labour have been adjusted due to their opportunity costs. Thus, in 2017, the modification of the labour costs and deduction on social purposes accordingly to the average level of wages in the Ukrainian economy will increase them by 1.23 times, to the average level of wages in the US agriculture by 9.40 times (Table 4).

Table 4. Changing the costs of Ukrainian agricultural products after modification due to the alternative value of labour for 2017

Indicators	Up to the average wage rate in country	Up to the average wage rate in the USA
Labour costs + deduction on social purposes, billion UAH	24743.4	24743.4
Labour costs + deduction on social purposes after modification, billion UAH	304434.4	232588.0
Changes of total costs, billion UAH	+5691,0	+207844.5
Changes of total costs, per cent	+1.5	+51.3

The ratio of the actual resource price and its alternative cost (at domestic or world market level) may be used for the modification of all elements of costs of primarily factors of production (labour, land, capital) and evaluation of the total changes of costs. In this study there have been done it only for labour. For assessment of competitiveness the percentage of modified costs changes due to alternative value in national economy ( $mcc_d$ ) or/and world market ( $mcc_w$ ) should be compared to the profitability of product sale in domestic market ( $p'$ ) or its export ( $p_e'$ ):

In the case of  $mcc_d < p'$ ,  $mcc_w < p_e'$ , product has the potential of competitiveness for the domestic and world market, respectively.

In the case of  $mcc_d \geq p'$ ,  $mcc_w \geq p_e'$ , the considered product does not have the potential of competitiveness for the domestic and world market, respectively.

Also the comparison of actual price paid by producer for the resources use and their alternative value is very important for the evaluation of the sustainability of production, competitiveness of product. Long-term underpaid resource use leads to the reallocation of resource, deterioration of conditions for its renewal. This fact is confirmed by the tendencies in Ukrainian agriculture. Low wage rate is one of the reasons of the huge reduction of labour force in Ukrainian agriculture, the number of hired workers of agricultural enterprises has reduced by 28.9 per cent for the last decade (2008-2017):

The comparison of profitability rate of agricultural product of Ukraine (Table 2) and per cent change of modified costs shows that owners of agricultural enterprise can pay wage rate at least at the level of the average ones in Ukrainian economy and keep profitability, but the wage rates of American farms would “eat” all profit of Ukrainian agricultural enterprises or agricultural products would lose their price competitiveness by the reason of growth cost (at the same profit):

It should be noted that the calculation of the ratio of alternative value of resource due to the border (world market) prices and real prices, paid by producer, depends on the exchange rate. Reducing the exchange rate of national currency increases opportunity costs and influence on the indicator of modified costs.

Since the competitiveness belongs to the comprehensive complex categories, the basis of a methodological approach to assessing the competitiveness of products is a set of its criteria by which the assessment should be made. The main criteria for the assessment of competitiveness of agricultural products are following: the sustainability of production and sales, efficiency, quality of production and its compliance with standards; financial security of production; environmental friendliness of production, product innovation, product (brand) and producer reputation, fair competition. The set of indicators reflect the competitiveness due to every criterion.

The basement of competitiveness is efficiency criteria. One of the approaches of competitiveness assessment due to the efficient criteria is opportunity costs approach. This approach takes into account the alternative costs of resources and allows to determine the potential of competitiveness.

This approach is usually used for the calculation of domestic resource cost (DRC) and the private resources cost (PRC) indicators. But their calculations require the collection of special database. For the express technology of the analysis of the efficiency cost-price competitiveness of product there was offered to use the indicator of percentage changes of modified costs. If this changes less profitability of product sales or export ( $mcc_d < p'$ ,  $mcc_w < p_e'$ ): then product has the potential of competitiveness for the domestic and world market, respectively. If the changes of modified costs exceed profitability of product sales or export ( $mcc_d \geq p'$ ,  $mcc_w \geq p_e'$ ): the considered product does not have the potential of competitiveness for the domestic and world market, respectively.

The production costs of Ukrainian agricultural enterprise after modification of cost of labour due to the average price for labour in the economy will increase by 1.5%, to the level of wages of hired workers in the American farms – by 51.3%. In fact, Ukraine's cost-price advantages in the world market are much smaller than it appears when comparing actual domestic and world prices and costs.

The competitiveness of agricultural products by cost-price factor has been formed at the level of prices and incomes employed in agricultural production, which do not meet the effective conditions of reproduction of the factors of production of the agriculture and caused dramatic reduction of labour force.

To ensure long-term price competitiveness of agricultural products it is necessary to increase the efficiency and quality of production on the base of technical and technological innovation, improve labour motivation, to provide the institutional transformations, development and implementation of marketing programs for agricultural products in the national and world markets.

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## **1.10. FEATURES OF INNOVATION-INVESTMENT ACTIVITY IN THE FIELD OF PLANTING**

The modernization of the Ukrainian economy, the implementation of scientific and technological progress, leads to global changes that have a significant impact on modern society. The main task of the socio-economic development of Ukraine in the context of external challenges is the orientation towards the introduction of innovations, maximizing the use of new factors of economic growth. Innovations are expanding the capabilities of agricultural producers, influencing the socio-economic development of rural areas. Thus, an increase in the intensification of agricultural production on the basis of the active introduction of innovations in the leading field of agriculture in the country – crop production is relevant.

The crop production sector is engaged in the cultivation of crops for the production of crop production, serves as a raw material base for the development of agricultural production sectors, and affects the food security of the country. Crop production can be considered in the industrial and technological aspects.

From an industrial point of view, the branch represents the doctrine of technically perfect and cost-effective growing of crops, which allows you to get maximum yields with high quality produced products.

From a technological point of view, crop production is a scientifically grounded system of agriculture, which includes a set of interrelated agro-technical, land reclamation and organizational and economic actions to support and enhance soil fertility.

The level of crop development depends on the state of livestock, the level of gross national product and gross regional product. The structure of the crop branch is shown in the figure 1.

The complex of priority tasks, which are solved by the branch, includes:

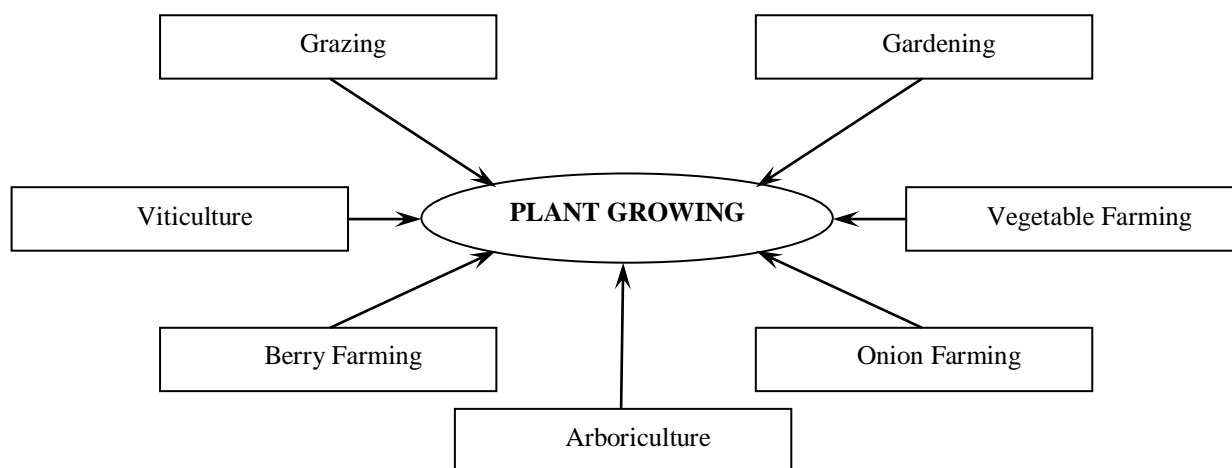
- studying the laws of obtaining a crop;
- identification of reserves of agricultural production growth,
- improvement of technologies of cultivation of agricultural crops.

The natural and climatic conditions in the zones of the Steppe, Forest-steppe and Polissya differ substantially, causing differences in the location and technologies of cultivating crops, which is directly determined by the action of the complex of natural factors:

- the height of the snow cover;
- the depth of freezing of the soil;
- dates of the first and last frosts;
- the sum of active temperatures;
- the duration of the frosty period and periods with average daily temperature above 0°C, above + 50° C and above + 100°C;
- the number of sunny days in a year and in a frosty period;
- amount of precipitation;
- annual radiation balance;
- water resources availability;
- types of soils;
- relief of the area, etc.

The difference between the existing placement of crops and the variants of their possible cultivation is due to the compliance of the biological characteristics of agricultural crops with the types of natural environment in conjunction with modern agricultural systems and indicators of economic efficiency of production.

Crop production is developed in Ukraine in all natural areas of the country. Plant features are associated with its distribution in directions. The field of plant growing includes the cultivation of grain and leguminous crops, melons and vegetables, forage crops, potatoes, cultivation of technical crops, perennial plantations – orchards and vineyards. A universal feature of plant growing can be considered the need for large areas of land.



*Fig. 1. Production structure of the field of plant growing*

Economic growth in crop production is largely determined by the intensity of investment and innovation activity, its directions and performance. Creation of economic and other prerequisites for a mass influx of innovations and investments in the agrarian sector is an important element of the state agricultural policy, which is part of the national policy.

Innovative activity is a system of measures aimed at obtaining a new or improved product or service, a new way of producing them through the use of scientific, scientific and technical and intellectual potential, meeting the demand and needs of society as a whole in innovations.

In the opinion of scientists<sup>1</sup> Innovative activities are all scientific, technological, organizational, financial and commercial activities that actually lead to innovation or conceived for this purpose. Some types of innovation activities are innovative in themselves, others do not have this property, but they are also necessary for innovation. Innovation activities also include research and development that are not directly related to the preparation of any particular innovation

In accordance with the Law "On Investment Activity" Innovation activity – one of the forms of investment activity, carried out in order to implement the achievements of scientific and technological progress in production and social sphere<sup>2</sup>.

The essence of innovative activity in the agrarian sector of the economy is the development and implementation of agrarian production of advanced methods of farming, based on the methods of effective production, the application of a new generation of technology, the use of a new personnel policy, taking into account the accumulated scientific and innovative potential<sup>3</sup>.

Innovative processes in agroindustrial production have their own specifics. They differ in a variety of regional, sectoral, functional, technological and organizational peculiarities. Thus, agrarian innovation is an innovation implemented in the agrarian sector of the economy in order to increase the efficiency of its activities and ensure a stable and expanded reproduction of agro-industrial production, the implementation in the economic practice of the results of research and development in the form of new varieties of plants, breeds and species of animals and birds, new technologies in crop production, livestock and processing industry, new fertilizers and plant protection products and animals, new methods of prevention and treatment of animals and poultry, new or improved their food products, materials, new forms of organization and management of various spheres of economy, new approaches to social services, which allow to increase the efficiency of production. The innovative processes in agriculture have a direct impact on the

<sup>1</sup> Hnylianska, L., Hryshchuk, A., Hurniak, I., Zahvoiska, L., Makara, O., Petrynka, V., Yurynets, Z. (2013): Innovatsiyni postup ekonomiky Ukrainy: problemy, tendentsii, potentsial zrostantia [Innovative progress of Ukraine's economy: problems, trends, growth potential]. Lviv : Liha-Pres, p. 295.

<sup>2</sup> Zakon Ukrainy «Pro investytsiinu diialnist» vid 18 veresnia 1991 r. № 1560 [Law of Ukraine «On investment activity» of September 18, 1991 No 1560]. (1991): Vidomosti Verkhovnoi Rady Ukrainy – Information Of The Verkhovna Rada Of Ukraine, No. 47.

<sup>3</sup> Polehenka, M.A. (2017): Osoblyvosti innovatsiinoi diialnosti v ahropromyslovykh pidpriemstvakh Ukrainy [Characteristics of innovation activity in agro-industrial enterprises of Ukraine]. Ahrosvit – Agromir, No. 6, pp. 49-54.

peculiarities of agricultural production. After all, in the agrarian sector, the main factor of production is land; therefore, this sphere of production has a number of specific features in comparison with other branches, in particular: the close connection with the reproduction of living organisms, the seasonal nature of production, the high level of risks, etc. In view of this, the peculiarities of innovations that are implemented in agrarian enterprises include: considerable length of the development process and, in general, the improvement character of innovation, the key role of research institutions in the process of developing innovation, taking into account the climatic conditions and the regional character of the development of innovations<sup>1</sup>.

Saranchuk G.M. outlines the main features of innovative activity in agroindustrial production, among which:

- variety of agricultural products and products of its processing, a significant difference in the technologies of their production;
- significant differentiation of individual regions of the country according to agrotechnological production conditions;
- dependence of technologies used in agriculture from natural conditions;
- the dispersal of agricultural production in a large area;
- a large difference in the periods of production of certain types of agricultural products;
- isolation of agricultural producers from scientific institutions engaged in the production of scientific and technical products;
- lack of organizational and economic mechanism for transferring scientific achievements to agricultural commodity producers<sup>2</sup>.

For agrarian enterprises introduction of innovations in production is first of all introduction of new technologies of agricultural production; application of new, more productive breeds in livestock breeding and new plant varieties, more productive and resistant to diseases and unfavorable to natural and climatic manifestations; use of biotechnology, which allows to receive more qualitative, useful products having a health and preventive effect; application of new technical means and technologies of cultivation of soil, cleaning and storage of raw materials; application of energy saving technologies, application of ecological innovations, which, accordingly, allow to increase yield, productivity, minimize costs and guarantee the safety of the environment<sup>3</sup>.

As Yankovskaya O.I. There are a number of features of the innovation process in agriculture:

- long process of innovation development;
- Innovations are, as a rule, of an improving character;
- research of living organisms;
- the leading role of research institutions;
- dependence on the natural zone and climate<sup>4</sup>.

Consequently, innovative activity in agro industrial production is a set of consistent actions in using the results of scientific research, advanced production experience in the creation of new or improved agricultural products, products of its processing, or improved technology and organization of their production.

Innovation activity varies by nature, scale and methods of influencing production, economy. Innovations that are carried out on a mass scale, act as an innovation process. The innovation process is divided into two phases: the creation of innovation and its diffusion (diffusion):

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<sup>1</sup> Yankovska, O.I. (2010): Osoblyvosti innovatsii v silskomu hospodarstvi [Features of innovations in agriculture]. *Ekonomika. Upravlinnia. Innovatsii – Economics. Management. Innovations*, No. 2. [online]. [Cited 01.06.2019]. Available online: [http://nbuv.gov.ua/UJRN/eui\\_2010\\_2\\_54](http://nbuv.gov.ua/UJRN/eui_2010_2_54)

<sup>2</sup> Saranchuk, H.M. (2010): Innovatsiyni rozvytok silskoho hospodarstva yak osnova pidvyshchennia yoho konkurentospromozhnosti [Innovative development of agriculture as a basis for improving its competitiveness]. *Innovatsiina ekonomika – Innovative economy*, No. 1, pp. 26-32.

<sup>3</sup> Polehenka, M.A. (2017): Osoblyvosti innovatsiinoi diialnosti v ahropromyslovykh pidpriemstvakh Ukrainy [Characteristics of innovation activity in agro-industrial enterprises of Ukraine]. *Ahrosvit – Agromir*, No. 6, pp. 49-54.

<sup>4</sup> Yankovska, O.I. (2009): Innovatsiyni protses u silskomu hospodarstvi [Innovation process in agriculture]. *Nauka i ekonomika: naukovo-teoretychnyi zhurnal Khmelnytskoho ekonomichnoho universytetu – Science and Economics: scientific and theoretical journal Khmelnytsky University of Economics*, No. 4 (16): Vol. 2, pp. 54-58.



Innovative processes in agro industrial production differ in regional, sectoral, functional, technological and organizational peculiarities.

The peculiarities of the innovation process in agro industrial production include:

- a variety of agricultural products and a wide range of products for processing, which determine the significant differences in the technologies of their cultivation, production, storage and processing;

- the influence of natural and weather conditions on the technology of growing crops;

- the gap in production periods by type of agricultural products and products of its processing;

- Different social level of agricultural workers, which requires training and raising their qualifications, consistent education;

- high territorial dispersion of production, differentiation of regions and even zones within regions according to production conditions<sup>1</sup>.

According to Vinichenko I.I., innovative development of agricultural production enterprises is possible only on the basis of the corresponding model, which should take into account regional peculiarities of agro-industrial production and possibilities of innovative development. That is why for financial provision of innovative development of agro-industrial complex it is necessary to concentrate capital on priority directions of development, in particular education, science, progressive technologies, entrepreneurial activity in the market of high-tech products; to ensure the organization of competitive agricultural production, which is possible due to the concentration of investments in the priority areas, in particular the implementation of investments in the development of human capital, which is the basis for the development and introduction of new knowledge of the organizational, technological, economic, environmental direction; reorienting investments in the development of agricultural sectors with a relatively high intensity of production, which now require an early revival on a new technical and technological basis, provide for the creation of additional jobs in the countryside and the production of import substitutes; to implement investment and innovation projects for the construction of industrial facilities for the processing of energy products and bio-fuel production, which will promote the production of alternative types of environmentally friendly fuel, utilization of surpluses of agricultural products and intermediate products of industrial production, creation of new jobs, increase of incomes of rural population and revenues to budget<sup>2</sup>.

The dialectics of the concepts of "innovation" and "investment" is such that investment is a necessary, if not the only, condition for the emergence and spread of innovations. Innovations are not possible without investment.

Among the variety of thoughts about the concept of "investment" in the works of scientists-agrarians, there are basically two definitions:

- expenses – investments are considered as expenses for the reproduction of fixed and working capital;

- resource – investment of funds for the acquisition of various property. At the same time, the totality of the sources of innovation represents an innovative potential, and sources of investment are investment potential.

If we consider investment in relation to innovation, then it should be recognized that investment processes can stimulate not only innovation. Investments in the most general form are long-term investments of state or private capital in different spheres and branches of economy both inside the country and abroad. Investments, in our opinion, are a means, an instrument for the development of innovations. The interaction of innovations and investments, which leads to certain results and helps to increase the efficiency of production, allows us to consider these categories in unity in order to study the main aspects of innovation and investment in crop production.

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<sup>1</sup> Polehenka, M.A. (2017): Osoblyvosti innovatsiinoi diialnosti v ahropromyslovykh pidpriemstvakh Ukrainy [Characteristics of innovation activity in agro-industrial enterprises of Ukraine]. Ahrosvit – Agromir, No. 6, pp. 49-54.

<sup>2</sup> Vinichenko, I.I. (2012): Innovatsiina diialnist ahrarnykh pidpriemstv: stan ta priorytety [Innovative activity of agricultural enterprises: status and priorities]. Biuleten Mizhnarodnoho Nobelivskoho ekonomichnoho forumu – Bulletin of the International Nobel economic forum, No. 1 (5): Vol. 1, pp. 44-48.

Innovation and investment activity is due to economic interests, achievement of high results and efficiency of reproductive processes.

The works of classics of economic thought, as well as modern scholars, consider the motives of entrepreneurial investment of funds in innovation, the efficiency of the investment process, but insufficient, in our opinion, attention is paid to the issues of innovation of investment objects, stabilization of the transition of plant growing to a qualitatively new level of development in conditions further integration of Ukraine into the global economic system.

Schumpeter J. defines innovation as "a new scientific and organizational combination of production factors, motivated by entrepreneurial spirit"<sup>1</sup>.

Santo B. identifies innovation with the techno-economic process, "which, through the practical use of ideas and inventions, leads to the creation of the best in their properties of products and technologies, and if the innovation is oriented towards economic profit (profit): its appearance on the market can bring additional income"<sup>2</sup>.

Numerous works of domestic scientists based on different approaches to the definition of "innovation" give the opportunity to classify innovations, including in agriculture, in particular in crop production:

- biological – new varieties and hybrids of agricultural plants;
- technical – use of new types of equipment and equipment;
- technological – scientifically grounded and ecologically conditioned systems of agriculture; new resource-saving technologies of production and storage of agricultural products;
- chemical – new fertilizer systems; new means of plant protection;
- economic – new forms of organization of work; new forms and mechanisms of innovative development of the enterprise;
- social – providing favorable conditions for life, work and recreation of rural population;
- managerial – new forms of organization and motivation of labor; new methods of effective human resources management;
- marketing – access to new segments of the market; Improving the quality of products and expanding assortment; new distribution channels of products.

Definition of this concept is manifested in identifying innovations with innovation; with innovative activity; with the production of new products, qualitatively different from the previous analogue; with the ultimate result of innovation activity.

Scientists mainly share innovation and investment processes, and their relationship is paid attention in a few studies.

So Schumpeter J. notes that "innovations involve investments ... Big innovations entail the creation of new enterprises and new equipment"<sup>3</sup>.

Kravchenko N.A. investment-innovation activity is defined as the process of implementing the results of intellectual work in various types of property and intellectual property that have a monetary value and are invested in objects of entrepreneurial and other activities, which results in the formation of profit or other socio-economic effect<sup>4</sup>.

According to Gerashchenko T.M. innovation and investment activity is the long-term use of own and borrowed investment resources of organizations for the purpose of innovation, which

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<sup>1</sup> Shumpeter, J. (1982): *Teoriya jekonomicheskogo razvitija: issledovaniya predprinimatel'skoj pribyli, kapitala, kredita, procenta i cikla kon'junktury* [Theory of economic development: studies of business profits, capital, credit, interest and the cycle of market]. Moscow : Progress, p. 864.

<sup>2</sup> Santo, B. (1990): *Innovacija kak sredstvo jekonomicheskogo razvitija* [Innovation as a tool for economic development]. (Trans): B.V. Sazonov (Ed.): Moscow : Progress, p. 296.

<sup>3</sup> Shumpeter, J. (1982): *Teoriya jekonomicheskogo razvitija: issledovaniya predprinimatel'skoj pribyli, kapitala, kredita, procenta i cikla kon'junktury* [Theory of economic development: studies of business profits, capital, credit, interest and the cycle of market]. Moscow : Progress, p. 864.

<sup>4</sup> Kravchenko, N.A. (2011): *Investytsiina skladova innovatsiinoho rozvytku* [Investment component of innovative development]. *Teoretychni i praktychni aspekty ekonomiky ta intelektualnoi vlasnosti : zbirnyk naukovykh prats – Theoretical and practical aspects of Economics and intellectual property : collection of scientific papers*. Mariupol : DVNZ Pryazovskoho natsionalnoho tekhnichnoho universytetu, pp. 23-27.

entails an increase in economic capital in monetary and / or material-real form<sup>1</sup>.

Cherep A.V. and Markov SV believe that "innovation-investment activity is an economic-social-legal category that reflects a set of practical measures for the use of intellectual labor, the results of which are expressed in a new (previously unknown) or improvement of the existing properties of the object with the attraction of investment resources in order to getting profit and other positive effect (social, environmental, etc.)»<sup>2</sup>. At the same time, the authors explain their point of view on these features of determining the content of the category of "innovation and investment activity:

- innovation and investment activity – is an economic category aimed at profit making, and to achieve this involve the subjects and objects of the economic system (state, entrepreneurs, property and savings of individuals and legal entities, etc.);

- a social category, since it is focused not only on profit, but also on satisfaction of social needs, for example, raising the level and quality of life;

- the legal category, subjects and objects of innovation and investment activity develop according to the laws and legal acts of Ukraine, and the state performs functions of management and regulation of the processes of this development;

- the relationship between investment and innovation lies in the fact that there is a close relationship between them. Investments are a resource of capital reproduction as a value that generates a flow of income and realizes its purpose only through materialization in innovations.

According to Nechaev V.I., Artemova E.I. and Kravchenko N.P. investments are "a necessary condition and the main source of innovation activity, and promote the implementation of an innovative model of economic growth in the agroindustrial complex<sup>3</sup>.

In turn, Borodin K.G. notes that the innovation-investment project is a program of research, development, research, organizational, production, commercial and other events, organized according to terms and executors and secured by the necessary investments, interconnected by the program purposes<sup>4</sup>.

In our opinion, innovation and investment activity in crop production is a system of relations between business entities regarding the attraction of the results of intellectual activity in the economic turnover and the generation of new knowledge based on long-term investments of state and / or private capital into crop production and its infrastructure in order to meet public needs and profit. Innovative and investment activity should ensure the obtaining of the economic effect of the integrated implementation of the innovative and investment potential of the crop production.

The innovation process is carried out with the help of innovations that influence the growth of the social product and internal savings, the latter, in turn, serve as a source and resource for the intensification of effective innovation and investment activity. The interconnection and unity of investment and innovation determine the direction of sustainable development of the socio-economic system.

Innovation and investment in crop production requires long-term investments and high costs for the formation and modernization of the material and technical base on an innovative basis, as

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<sup>1</sup> Gerashhenkova, T.M. (2013): Teoreticheskie aspekty innovacionno-investicionnoj dejatel'nosti [Theoretical aspects of innovative-investment activity]. Izvestija Sochinskogo gosudarstvennogo universiteta – News of the Sochi state University, No. 4-1(27): pp. 55-62.

<sup>2</sup> Cherep, A.V., Markova, S.V. (2010): Teoretychni aspekty formuvannia innovatsiino-investytsiinoi diialnosti [Theoretical aspects of the formation of innovation and investment activity]. Innovatsiina ekonomika : Vseukrainskyi naukovo-vyrobnychiy zhurnal – Innovative economy : all-Ukrainian scientific and production journal. Ternopil : DVNZ Ternopilskyi instytut ahropromyslovoho vyrobnytstva, No. 17, pp. 154-158.

<sup>3</sup> Nechaev, V.I., Artemova, E.I., Kravchenko, N.P. (2010): Problemy ocenki jeffektivnosti innovacionno-investicionnyh proektov v rasteniievodstve [Problems of efficiency evaluation of innovation and investment projects in crop production]. APK: jekonomika, upravlenie – AIC: economy, management, No. 12, pp.22-27.

<sup>4</sup> Borodin, K.G. (2014): Model' analiza prognozov razvittija agropromyslovoho vyrobnytstva v uslovijah menjajushchih rynkov i investirovanija [Model of analysis of forecasts of development of agri-food markets in the context of changing measures of protection and investment]. Nikonovskie chtenija – Nikon readings, No. 19, pp. 74-76.

well as the development of intellectual property objects. Without investment support, the innovation potential can not be realized, despite its scientific and technical significance.

Investment activity stimulates the creation and dissemination of innovations, the reverse effect of innovation activity is realized through the effect of reproduction of expended factors of production, including innovative products and technologies.

Innovation-investment process can be structured according to types of innovations and investments, factors, sources of innovations and investment resources. Integrating investment and innovation into a single process generates a synergistic effect<sup>1</sup>:

$$S_{EFI} = S_{INN} + S_{INV}, \quad (1)$$

where  $S_{EFI}$  – the synergistic effect of integrating innovations and investments into a single innovation-investment process;

$S_{INN}$  – synergistic component of the complex of innovative factors;

$S_{INV}$  – synergetic component of investment factors.

The combination of innovative ideas with investment opportunities takes place at the stage of preliminary and final feasibility studies. In the course of carrying out investment and innovation activities, while observing the principles of the efficiency of the use of material and technical resources and intellectual capital, the effect of objective laws, which corresponds to certain patterns inherent in the dialectic of investment in innovation. Laws, laws and principles of plant organization should be taken into account in investment and innovation activities.

The investment and innovation potential of plant growing shows the extent of the industry's ability to fulfill its goals of achieving the goals of innovation development, characterizes the degree of readiness for the implementation of technical and technological transformations and infrastructure transformations and is characterized by the specifics of formation and reproduction.

Innovative and investment activity in crop production as a system of relations between investors, producers (owners) and consumers of science-intensive and high-tech products, in relation to attracting into the economic turnover of the results of intellectual activity, ultimately, is aimed at satisfying social needs.

An important role in shaping the market for innovative products and technologies in crop production is to rationalize the processes of their reproduction. Therefore, in the investment and innovation activity model, the processes of creating innovation based on investment closely interact with the subsystem of their market distribution (Figure 2)<sup>2</sup>.

Investment and innovation activity is formed in the field of economic relations, forming a certain unity and integrity of objects of innovative application of capital, the actual process of investing with its inherent risks, a system of market promotion and commercialization of innovations.

In the conditions of Ukraine's orientation in the world economy, the need to re-equip the agrarian sector of the national economy, in particular, the crop production, the increase of production volumes and the level of competitiveness of agricultural products, one of the promising directions of development of agrarian enterprises of Ukraine is the use of innovative approaches to the implementation of economic activity.

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<sup>1</sup> Orekhova, M.S., Gurnovich, T.G. (2018): *Prioritetnye napravleniya razvitiya innovacionno-investicionnoj dejatel'nosti v rastenievodstve* [Priority directions of development of innovation and investment activity in crop production]. Moscow : Izd. dom «Mirakl'», p. 116.

<sup>2</sup> Orekhova, M.S., Gurnovich, T.G. (2018): *Prioritetnye napravleniya razvitiya innovacionno-investicionnoj dejatel'nosti v rastenievodstve* [Priority directions of development of innovation and investment activity in crop production]. Moscow : Izd. dom «Mirakl'», p. 116.

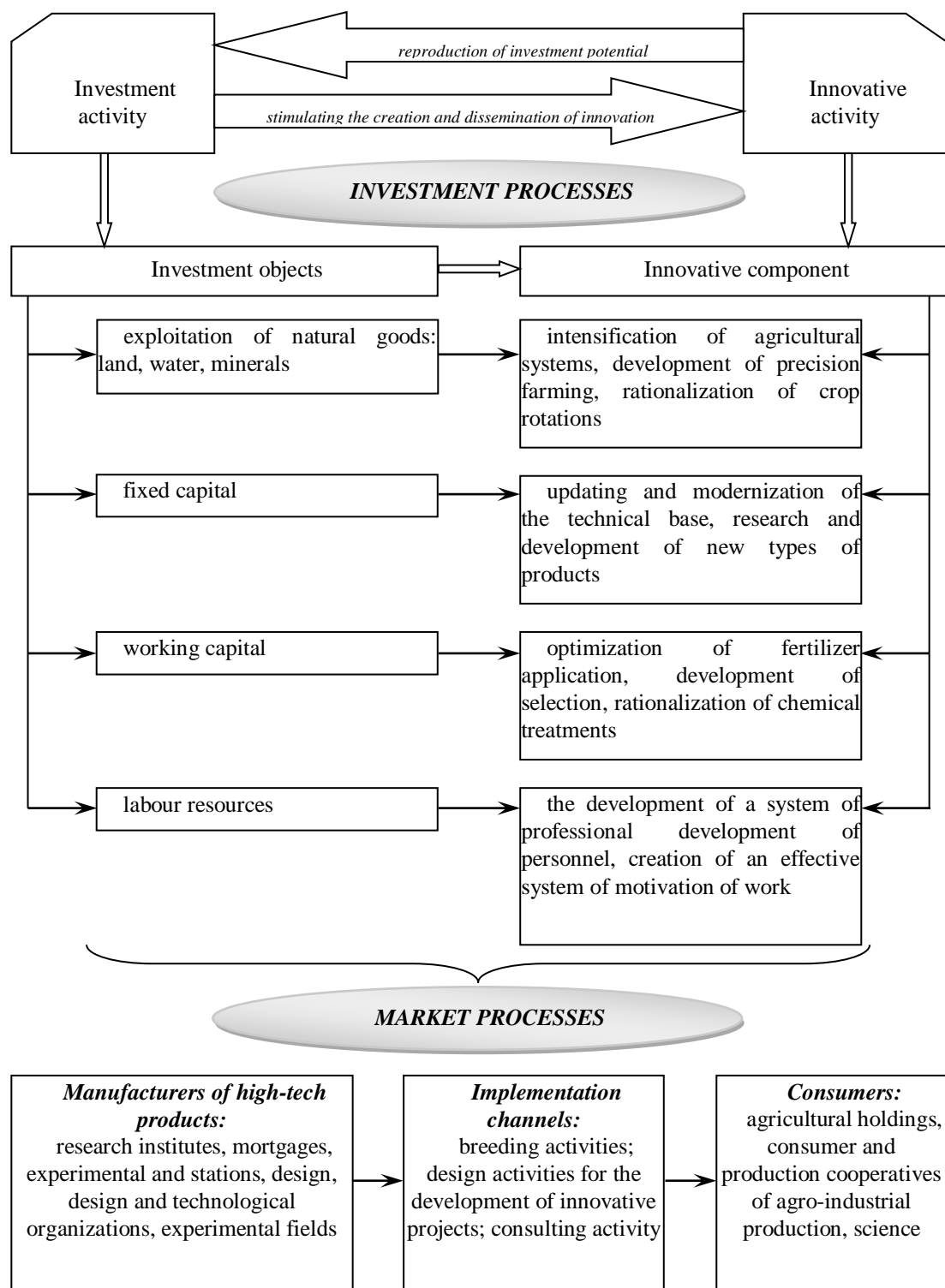


Fig. 2. Model of investment-innovation activity in the field of plant growing

In the current conditions of economic management, the development of the agrarian sector should be ensured by "... through innovation and investment, strengthening the material and technical basis of the agricultural sector, the introduction of environmentally safe, resource-saving and energy saving technologies"<sup>1</sup>. That is why the priorities in the development of innovation and investment in the agrarian sector of the Ukrainian economy, in particular, the crop production sector, include:

<sup>1</sup> Derzhavna tsilova prohrama rozvytku ukrainskoho sela na period do 2015 roku [The state target program of development of the Ukrainian village for the period till 2015]. (2007): Resolution of the Cabinet of Ministers of Ukraine of September 19, 2007, No. 1158, p. 6.

- technological re-equipment of the field of plant growing;
- application of resource-saving technologies of growing of agricultural crops
- application of technologies of organic farming;
- fertility reproduction of soils;
- creation of a modern system of informational and infrastructural provision of innovation activity;
- improvement of the personnel training system, which provides increase of innovative activity of enterprises and commercialization of results of scientific researches.

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3. Derzhavna tsilova prohrama rozvytku ukrainskoho sela na period do 2015 roku [The state target program of development of the Ukrainian village for the period till 2015]. (2007): Resolution of the Cabinet of Ministers of Ukraine of September 19, 2007, No. 1158, p. 6.
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## 1.11. ORGANIZATIONAL CHANGE MANAGEMENT PROCESSES BASED ON THE PROJECT APPROACH METHODOLOGY

The need to introduce new or improved technology requires a revision of the many processes that must be undertaken as part of a change in the enterprise. Such processes are manufacturing. Most often they are the key to change. Management processes must be changed as a result of changes in production processes. In practice, the organization of improvement of both production and management processes should be carried out simultaneously. Successful implementation of change in processes requires, first of all, a thorough analysis of all the processes that will undergo change. After this analysis, the processes are determined, which should be completely excluded from the activity of the enterprise, ie the reengineering procedure is implemented. In case of introduction of fundamentally new processes, a detailed description is made, including the necessary inputs and outputs, resources and control mechanisms. In case of modification of existing processes, a detailed description is also elaborated, with specific changes regarding inputs, outputs, resources and control mechanisms. Thus, as a result of organizing changes in processes at the enterprise, there are three groups of processes: the first group - those that need to be eliminated, the second - those that need to be improved or modified, and the third - new processes that need to be implemented at the enterprise. If the company is certified by a quality system, such as ISO 9001, then the organization of process changes is much easier, because to obtain this certificate, the company has to regulate business processes that significantly affect the quality of products, and develop documentation of the quality management system. Thus, after the certification procedure, the enterprise has already formed a list of critical processes that affect the quality of products, and therefore any changes that are planned at the enterprise will affect these processes. The organization of change processes is a starting point for other internal areas of enterprise activities that need of change.

The organizational change management paradigm currently lacks a common methodology for implementing them, and we hypothesize that project approach is one of the possible. It provides for the management of a set of works combined with a common purpose, limited resources, time, and risks according to predefined quality parameters<sup>123456</sup>.

A similar approach is considered in the work of A. G. Baldyniuk<sup>7</sup>, where the author emphasizes that “the organizational structure of change implementation should be formed from a permanent structure and include representatives of top-management and flexible structure of the change project team”.

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<sup>1</sup>Bushuev, S. D., Bushueva, N. S. (2010). *Upravlenie proektami : osnovy prof. znaniy i sistema ocenki kompetentnosti proekt. menedzherov*. [Project management: the basics of prof. knowledge and project competency assessment system. managers]. (National Competence Baseline, NCB UA Version 3.1). 2<sup>nd</sup> ed. IRIDIUM. Kiev. Ukraine.

<sup>2</sup>Bushuyev, S. D. (2001). *Slovnýk-dovidnyk z pytan upravlinnya proektamy*. [Vocabulary list with food project management]. VD «Dilova Ukrayina». Kiev. Ukraine.

<sup>3</sup>Dmytriiev, I. A. Dedilova, G. V., Kyrchata, I. M. (2013). *Upravlinnya proektamy : navch. posibnyk*. [Project Management: Nav. posibnik]. XNADU. Kharkiv. Ukraine.

<sup>4</sup>Dovgan, L. Ye. (2017). «Upravlinnya proektamy»: navchalnyj posibnyk do vyvchennya dyscypliny dlya magistriv galuzi znan 07 «Upravlinnya ta administruvannya» specialnosti 073 «Menedzhment» specializaciyi: «Menedzhment i biznes-administruvannya», «Menedzhment mizhnarodnyx proektiv», «Menedzhment innovacij», «Logistyka». [“Project Management”: the first introduction to the discipline for the master of knowledge 07 “Management and administration” specialties 073 “Management” specialization: “Management and business”, “Management”, “international”]. Uklad.: Dovgan, L. Ye., Moxonko, G. A., Malyk, I. P. KPI im. Igorya Sikorskogo. Kiev. Ukraine.

<sup>5</sup>Kerivnyctvo z pytan proektnogo menedzhmentu. (2000). [Kerivnistvo z pitan project management]. Translated from eng. in Bushuyeva, S. D. (ed.); 2<sup>nd</sup> ed. Vydavnychij dim «Delovaya Ukrayina». Kiev. Ukraine.

<sup>6</sup>Kerivnyctvo z upravlinnya innovacijnyx proektamy ta programamy R2M. (2009). [Kerivnistvo with the management of innovative projects and P2M programs]. In Bushuyeva, S. D. (ed.). Translated from eng. Naukovy jsvit. Kiev. Ukraine.

<sup>7</sup>Baldyniuk, A. G. (2017). *Strategiya upravlinnya zminamy v organizaciyi*. [Strategy for managing change in the organization]. *Ekonomika i suspilstvo*. – Economics and Society. Issue 2017. no. 10. pp. 155–158.



The role of project management has also been suggested by Y. Duchnich<sup>1</sup> within the "triangle of change" along with change management, leadership and sponsorship. The researcher emphasizes that project management should act as an organizational structure or project team that will allow using its methods and tools for planning, organizing and implementing changes project.

At present, the project approach is sometimes regarded as managing change constantly. From our point of view, project management should be considered as the most appropriate methodology at the stage of the change management implementation function within the change management process, which can integrate all existing organizational change management tools that include principles, methods, criteria, goals, which in turn has a specific set of tools that allow to achieve goals with a lower amount of resources expended (about 25% lower) than other management methodologies.

The purpose of the study is to develop the main components of organizational change work in accordance with the methodology of the project approach.

The type of scale change causes similar changes in each area. But, as has been proved, the profile of change<sup>2</sup> is formed under the influence of both internal and external factors, and may involve different scales of changes in the organizational structure. The improvement of the organizational structure depends on changes in production and management processes planned at the enterprise in addition to modifications within the profile of changes identified at the planning stage. All processes are carried out within the existing units and their functions. Therefore, it can be argued that direct changes in the organizational structure and hierarchy depend both on the analysis of the influence of external and internal factors that determine the scale of change, and on changes in the above processes. That is, if two priority scales of organizational structure change are identified as a result of analyzing the impact of factors within the change profile, process changes may require other scale changes within the structure and hierarchy. This mainly applies to smaller scale changes in impact. So, if the planning phase prioritizes changes to the structure is to eliminate inefficient positions and improve hierarchical connections, this will include looking at the functions of existing units that are relevant to the processes included in the change program, and creating new units or departments, if the number new processes are significant and cannot be implemented within existing ones. The analysis of the relevance of the existing organizational structure to the future vision of the enterprise as a result of the changes should be undertaken by the change project team and directly by the team leader. After determining the processes that should be excluded from the activities of the enterprise, the units that are directly involved in the implementation of these processes are analyzed. If the functions related to these processes are more than 50% of the total work of the respective units, then they must be reorganized. Otherwise, the functions are revised and a new subdivision provision is developed. The relationships between them are determined and adjustments made to the existing hierarchy of positions after defining a new number of business units, clarification and improvement of their function.

Another area of change is the key competencies of staff. Staff must have certain knowledge, skills and competences that must be formed in the process of training, advanced training, retraining and development In order to implement updated processes or fundamentally new ones. In addition, specific competencies must be acquired by executives involved in change management to implement the updated management functions. The staff development program is formed after the changes in processes and organizational structure have been identified.

The last area is organizational culture and communication. The values, norms, traditions, beliefs, expectations, patterns of communication, forms of communication, symbols should be

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<sup>1</sup>Duhnich, Ju. Prakticheski orientirovannyye modeli upravleniya izmeneniyami. [Practically oriented models of change management]. statii [Proekt «Smart education». [articles [Smart education project]. Available at: [http://www.cfin.ru/management/strategy/change/change\\_models.shtml](http://www.cfin.ru/management/strategy/change/change_models.shtml)]

<sup>2</sup>Stepanenko, S. V. (2017). Obg`runtuvannya profilu zdijnsennya organizacijny`x zmin na pidpry`yemstvi. [Substantiation of the profile of implementation of organizational changes in the enterprise]. Visny`k Sxidoukrajyn`s`kogo nacional`nogo universy`tetu imeni Volody`my`ra Dajla. – Bulletin of the East Ukrainian National University named after Vladimir Dahl. no. 6 (236). pp. 202–207.

improved or introduced fundamentally new along with the organizational structures and hierarchies changes, that is the introduction of a new philosophy or ideology or change of existing. These components were obtained on the basis of works<sup>1234</sup>.

The main purpose of these changes is to support changes in competences, processes and structure. To implement these changes, it is first necessary to create an "organizational culture passport", which will detail all of the above components. Accordingly, changes in the organizational culture components are described, depending on changes in staff processes and competencies. Particular attention should be paid to the organization of communications, because it depends on them the effectiveness of making changes and preventing resistance.

After determining what changes are to be made directly at the enterprise, the next question is their implementation. Here, an important role is played by the organizational function of implementing organizational changes and motivating staff to perceive them. The organizational aspect involves determining the most appropriate approach for conducting or implementing organizational change at the enterprise. And the function of motivation concerns the most complex and controversial issue in their implementation, which concerns the issues of involving staff in their implementation, perception and not counteracting it. In the scientific literature, this area of change management is regarded as resistance management. From our point of view, the functions of the organization and the motivation for managing change should be considered in close relationship and interdependence, which can ensure a high level of effectiveness of their implementation.

The question arises of the implementation of specific measures or actions needed to achieve the goal after assessing the internal state of the enterprise and the impact of external factors, determining the type of changes required in the respective areas of activity of the enterprise. These actions involve moving the enterprise in terms of its internal spheres of activity (in our study, we emphasize the organizational structure and hierarchy, processes, key competencies of staff and organizational culture) to a new state, characterized by a different from the previous set of qualitative parameters or other quantitative value for already existing quality ones. To achieve this goal, a set of measures must be implemented.

Consider the subjects of change management. We have identified the management of the company and the team implementation of changes. This team is fully in line with the traditional understanding of the project team that manages the project implementation.

Traditionally, the three main roles of participants in the restructuring process are distinguished: they are the sponsor of change – the person or group who owns the authority in the organization to approve the transformation, the executor - the agent of change - the person or group responsible for the implementation of the adopted decisions change object is often a group of people who, as a result of transformations, have to acquire new knowledge, skills, competencies or demonstrate new behavior and attitudes<sup>5</sup>. These participants include the change agent along with the team and the change leader (sponsor). The project manager should act as a change agent for the team. The work<sup>6</sup> provides a detailed description of the characteristics of a leader, agent, and team of change in terms of their types, technology, work, tasks, skills, and qualities. A key factor in the success of these entities, in our view, is a clear separation of functions between the leader and the

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<sup>1</sup>Malinin, E. D. (2004). Organizatsionnaya kul'tura i jeffektivnost' biznesa: Ucheb. Posobie [Organizational culture and business efficiency: Textbook. manual]. Izdatel'stvo Moskovskogo psikhologo-social'nogo instituta. Izdatel'stvo NPO «MODEK». Voronezh. Moscow. Russia.

<sup>2</sup>Radugin, A. A. (2006). Organizatsionnaya kul'tura [Organizational culture]. Organizatsionnoe povedenie. Hrestomatija. [Organizational behavior]. Redaktor-sostavitel' Rajgorodskij, D.Ja.: Izd. dom «Bahrah-M». pp. 50-727. Samara. Russia.

<sup>3</sup>Xayet, G. L., Yes'kov, O. L. Xayet, L. G. (2003). Korporatyvna kul'tura: Navch. posib [Corporate Culture: Educ. tool.]. In Xayeta, G. L. (ed.). Ky'yiv: Centr navchal'noyi literatury. Kiev. Ukraine.

<sup>4</sup>Shejn, Je. (2006). Organizatsionnaya kul'tura i liderstvo [Organizational culture and leadership]. Translated from eng. and in Spivaka, V. A. (ed.). Piter. St. Petersburg. Russia.

<sup>5</sup>Bayeva, O. V., Noval's'ka, N. I., Zgalat-Lozy'ns'ka, L. O. (2007). Osnovy` menedzhmentu: prakty`kum : navch. posib. [Fundamentals of management: workshop: Nav. pos\_b.]. 2<sup>nd</sup> part. Centr uchbovoyi literatury. Kiev. Ukraine.

<sup>6</sup>Doroshuk, G. A., Savchenko, G. O. (2014). Kadrove zabezpechennya upravlinnya zminamy` [Personnel support for change management]. Ekonomika: realiyi chasu. – Economics: the realities of time. no. 3. pp. 50-56.

agent of change. If the change leader is a representative of the organization, then he or she should be clear about the root cause and the need for change, the future desirable state that the organization should come to as a result of the change and, most importantly, an understanding of what personnel should be involved in the process of making those changes. That is why we agree that the function of forming a change team should be implemented by him. In general, the implementation requires constant interaction between the leader and the agent of change. The change agent, who is often a third-party organization, is tasked with clarifying staff on the need for change, engaging, transferring knowledge, skills training, and translating enterprise strategic goals and values<sup>1</sup>. In practice, to ensure the successful implementation of change requires the support and understanding of all management, including senior and middle management. This function should be implemented by the change leader along with the agent if he is an employee of the organization. Generally speaking, it is critical in the early stages of implementation to ensure that the entire management is supported. At the same stage, the effectiveness of change implementation is analyzed, which involves considering possible implementation alternatives, assessing the potential benefits and costs needed to achieve them. Regardless of the scale of organizational change, it is important to set aside for the leader, agent and change team the working time required to carry out their functions within the project<sup>2</sup>.

The formation of the organizational change implementation team is in fact the creation of an appropriate organizational structure for their implementation. It is important to distinguish the organizational structure of the project from the organizational structure of the company, which is one of the areas affected by these changes. It is important to create an appropriate organizational space for the success of team formation, emphasized by researchers C. M. Christensen, M. Overdorf<sup>3</sup>.

Its purpose is to provide the emergence of new processes and values that can create new opportunities. Creating such a space is possible by implementing different options: creating a new organizational structure within the enterprise to develop new processes, creating an independent organization from an existing one, or acquiring another organization whose processes and values are close to new needs. In fact, these changes are more characteristic of changes directly in the organizational structure of the enterprise.

When the requirements of new capabilities are closely linked to organizational processes and values, team formation should involve the creation of a temporary functional group from positions that operate within the organization. In this case, working on a change project is seen as an additional task to the current functional responsibilities of team members. In a similar situation, but with little regard to organizational processes, it is advisable to create a "difficult" team by diverting people from units within a new project, but from an existing organization. In the opposite situation, when there is a strong correlation of the requirements of new capabilities with organizational processes, but a weak link with the values, it is advisable to create a "difficult" team, but implementation will necessarily require the separation of new units outside the company. In the most difficult case, with poor communication with both processes and values, a difficult development team must function in a pre-segregated unit.

After clarifying the role of the subject of change management, we will consider in detail the organizational aspects of their implementation.

There are a number of methodologies in project management. All of these standards consider the project as part of its life cycle (initiation, planning, execution, control and closure) by relevant knowledge areas, such as integration, content, time, cost, quality, human resources,

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<sup>1</sup>Doroshuk, G. A., Savchenko, G. O. (2014). Kadrove zabezpechennya upravlinnya zminamy` [Personnel support for change management]. *Ekonomika: realiyi chasu*. – Economics: the realities of time. no. 3. pp. 50-56.

<sup>2</sup>Najpak, D. V. (2011). Upravlinnya organizacijny`my` zminamy` v zabezpechenni rozvy`tku pidpry`emstva [Management of organizational changes in ensuring the development of the enterprise]. Abstract of Ph.D. Thesis: 08.00.04; Xark. nacz. ekonom. un-t. Kharkiv. Ukraine.

<sup>3</sup>Christensen, C. M., Overdorf, M. (2000). Meeting the Challenge of Disruptive Change. *Harvard Business Review* 78 (2 March-April). 2000. pp. 66-78.

communications, risks and procurement management despite the differences in understanding of project management features. In the context of communications management, stakeholders are at one time identified. Thus, project management is a set of processes, each of which relates to a specific knowledge area at a particular stage in the life cycle. Let's take a closer look at the essence of each industry in managing change.

Integration management involves the development of a project plan for implementation of changes, project charter, and content description, definition of monitoring and control and closure processes. The project charter is a basic document that includes a brief description of it, the products of the project, key milestones that track the success of the project, team composition and a list of potential risks. The most time-consuming is the development of a project management plan<sup>1</sup>, which includes a set of documents for each of these knowledge areas, which allows to capture all key aspects regarding the implementation of changes. Within the framework of integration management, at the stage of project initiation, the organizational structure of its implementation is determined with the formation of the project team.

The next area is content management. It includes defining the list of work to be done to implement the planned changes. Despite the uniqueness of each change that is introduced at the enterprise, we propose a structural decomposition of works, which is fundamental for the implementation of changes in the scope of their proposed areas implementation: processes, staff and competencies, organizational culture and organizational structure and hierarchy. At this stage, the goals of the project changes that are specified as project products - the desired results and the criteria for evaluating the success of the project are determined.

After determining the list of works, the resources needed for their implementation are evaluated: first of all labor, material and financial. The estimated duration of the work is estimated given the availability of resources. Resources must be assigned to each work. Most often such types of resources are distinguished: labor (human), logistical and material, costs of maintenance and operation, subcontracts, deductions for social events, information, intellectual, communication, administrative, financial and management costs and other general production<sup>23</sup>. A more detailed distribution is possible, but this grouping allows us to determine the features of managing them. Let's look at the most typical changes for the enterprise. Workforce is assessed for availability, and in the case of lack, a plan is drawn up to attract additional resources or from other projects (units of the enterprise which are not affected by changes) or by hiring employees. Material resource planning is associated with the need for bidding and scheduling depending on conditions. Material resource planning is associated with the need for bidding and scheduling depending on conditions. Financial resources, unlike the previous ones, are more flexible, but in case they are insufficient or insufficient to cover labor and material resources for changes, a cash flow plan is developed and the need for lending is substantiated. The cost of the project is determined based on the estimate of the amount of required resources and their cost, which serves as the basis for calculating the budget.

A specific feature of each project is recognition of the inverse relationship between duration and available resources. Understanding this trait in implementing changes by senior management and allocating sufficient resources to their implementation is a key prerequisite for successful

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<sup>1</sup>Dovgan, L. Ye. (2017). «Upravlinnya proektamy»: navchal'nyj posibnyk do vyvchennya dy'scypliny dlya magistriv galuzi znan' 07 «Upravlinnya ta administruvannya» special'nosti 073 «Menedzhment» specializaciyi: «Menedzhment i biznes-administruvannya», «Menedzhment mizhnarodny'x proektiv», «Menedzhment innovacij», «Logisty'ka». [“Project Management”: the first introduction to the discipline for the master of knowledge 07 “Management and administration” specialties 073 “Management” specialization: “Management and business”, “Management”, “international”]. Uklad.: Dovgan, L. Ye., Moxon'ko, G. A., Maly'k, I. P. KPI im. Igoria Sikors'kogo. Kiev. Ukraine.

<sup>2</sup>Dmy'triyev, I. A. Dedilova, G. V., Ky'rchata, I. M. (2013). Upravlinnya proektamy : navch. posibnyk [Project Management: Nav. posibnik]. XNADU. Kharkiv. Ukraine.

<sup>3</sup>Faerman, M. I. (2007). Kompleksnyj social'no-psihologicheskij podhod k preduprezhdeniju soprotivlenij novovvedenijam personala (na primere organizacij malogo i srednego biznesa) [An integrated socio-psychological approach to the prevention of resistance to innovations of personnel (for example, organizations of small and medium-sized businesses)]. Abstract of Ph.D. Thesis. Jaroslavl'. Russia.

implementation. Therefore, if the enterprise is to achieve change as quickly as possible, significant resources must be allocated to implement it. In a situation of scarce resources, especially staffing, it should be understood that implementing change will take a long time. After determining the duration of the works, a network model is formed; this is a finite connected graph that displays all logical relationships and results of the project<sup>1</sup>. This allows you to determine the duration of the entire project, that is, the period of time it takes to implement the planned changes to the enterprise. Allocation of resources by network model allows determining whether there are conflicts of resources - that is, the need for simultaneous use of the same resources over their available quantity is exceeded. Traditionally, resource conflicts are resolved by a method of calibration - that is, the movement of jobs that are not on a critical path within the network model using time reserves.

If the previous processes for integration, content, timing and cost of the change project are consistent, risk and quality management are in place from the start of the project. Quality management refers to the processes required to meet the needs of a change project. Traditionally, these include quality policy, tasks and responsibilities, which are combined into three key processes: quality planning, quality control and improvement within the assurance system<sup>2</sup>.

Quality assurance involves both processes: product-oriented and project-oriented. This indicates that when a project concept is formulating for each of the areas that will be undergone by transformation (processes, culture, competences and structure), indicators should be identified by which the quality of the project products will be evaluated and the desired values of these should be determined. Such tools are called «metrics» or operational definitions or quality.

For the project implementation process, the quality assurance changes are subject to adherence to the deadline, budget, adherence to authority, prevention of stakeholder conflicts and resistance to change. The success of a change project at the quality planning stage requires the development of a cause and effect diagram (Ishikawa diagram) that will identify the most important factors that contribute to or constrain the change and define quality metrics. It is important to identify authorized persons who influence the quality of the change project, are responsible for quality assurance and are recorded in the quality program. It is also mandatory to develop a checklist that includes elements for inspection - a list of questions or statements that must be answered in order to determine whether an appropriate quality level has been reached. It consists in the quality planning process and is used in the control process. In general, it is worth noting that if the company does not have a well-established quality management system, then before implementing any changes, it is necessary to develop a vision of this system for the whole enterprise. If it exists and is functioning effectively, it is sufficient for the change project to clarify its position regarding the implementation of organizational changes and to develop all the above tools in accordance with the overall quality management concept adopted by the enterprise.

An important area of organizational change project management is risk management. Risk means the danger of unforeseen loss of expected profit or property, cash due to accidental changes in economic conditions, unfavorable, including force majeure circumstances, which is measured by the frequency and probability of occurrence<sup>3</sup>. Risk involves three components: uncertainty is the very fact of what can happen; the probability of this fact occurring and the impact of this fact on the project. Thus, risk management means the influence on effects that a risk may have on a project, or the probability of it occurring, or both these items simultaneously.

The project's human resources management integrates organizational planning, staffing, and teamwork. Processes such as organizational planning, team recruitment, development and project team management are identified within this knowledge area. It is advisable to consider team building in the context of defining the organizational structure for implementing change within the

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<sup>1</sup>Bushuyev, S. D. (2001). Slovnýk-dovidnýk z py`tan` upravlinnya proektamy` [Vocabulary list with food project management]. VD «Dilova Ukrayina». Kiev. Ukraine. C. 273.

<sup>2</sup>Kerivny`czstvo z py`tan` proektnogo menedzhmentu. (2000) [Kerivnitstvo z pitan project management]. Translated from eng. in Bushuyeva, S. D. (ed.); 2<sup>nd</sup> ed. Vy`davny`chij dim «Delovaya Ukray`na». Kiev. Ukraine. C. 93.

<sup>3</sup>Bushuyev, S. D. (2001). Slovnýk-dovidnýk z py`tan` upravlinnya proektamy` [Vocabulary list with food project management]. VD «Dilova Ukrayina». Kiev. Ukraine. C. 366.

knowledge area of “integration management” as part of the organizational change management project. Instead, special attention should be paid to organizational planning, which includes defining, documenting, allocating duties and responsibilities, and the most importantly, defining project reporting. Organizational planning is closely linked to planning for information communication and stakeholder engagement with the change project. Initial data for organizational planning are project links, including organizational, interpersonal and technical, staffing requirements and restrictions. Methods and tools of organizational planning are template implementation, management practices, organizational planning theory, and stakeholder needs analysis<sup>1</sup>.

As a result of organizational planning, a management plan, an organizational schedule, supporting details and a responsibility matrix are obtained. One of the critical documents is the development of a responsibility matrix required in implementing a change project. Its purpose is to establish the correspondence between the changes made during the structural decomposition of the work and the team members in terms of specific functions, which include planning, control, coordination, information gathering, and execution. If the implementation of the change project involves co-executors or other stakeholders performing advisory functions, the functions may be extended to the following: customer, approval, agreement, and supervisory board.

Stakeholder management and project communications are its two separate knowledge areas. As part of a change management project, it is advisable to bring them together into one common industry because they are closely interconnected. Communications management refers to the field of project management that integrates the processes required to ensure the correct collection and dissemination of project information, which includes communications planning, information sharing, reporting and administrative closure<sup>2</sup>.

Thus, using the methodology of the project approach, key provisions of organizational change management have been developed, the basis of which are the processes of forming a project product that reflects the purpose of organizational change, and the project management processes aimed at the effective implementation of the organizational change project. The main branches in the structural decomposition of the organizational change project work are the relevant knowledge areas, which include integration and content management, time and budget management, quality management, project personnel management, procurement management, risk management, communications management and stakeholders.

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<sup>1</sup>Kerivny`cztvo z py`tan` proektnogo menedzhmentu. (2000). [Kerivnitsstvo zpitan project management]. Translated from eng. in Bushuyeva, S. D. (ed.); 2<sup>nd</sup> ed. Vy`davny`chij dim «Delovaya Ukray`na». Kiev. Ukraine. C. 108-109

<sup>2</sup>Bushuyev, S. D. (2001). Slovy`k-dovidny`k z py`tan` upravlinnya proektamy`. [Vocabulary list with food project management]. VD «Dilova Ukrayina». Kiev. Ukraine.C. 35.

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## 1.12. GENERALIZATION OF APPROACHES AND MODELS FOR ENTERPRISE CHANGE MANAGEMENT

Lately, quite a number of Ukrainian, post-Soviet, American and European representatives of the scientific community have been paying much attention to the nature of organizational change management. Strategic change, as a specific type of organizational change, receives less attention. Instead, developing a strategic change management methodology requires clarification of the specific tools needed to build a strategic change management system in the enterprise. If organizational change management is to be integrated with the overall management of the enterprise, strategic change management should occupy a separate niche and align with the strategic management of the enterprise. In fact, this sphere is a logical combination of classical enterprise management, organizational change management, and strategic management as a superstructure over the two previous areas.

In order to formulate the most important aspects of strategic change management, it is advisable to analyze existing models and approaches developed by researchers.

The most famous researchers whose works are identified with change management are L. Greiner<sup>1</sup> and K. Lewin<sup>2</sup>. The first suggested the stages of enterprise development, depending on its maturity and size, where growth is carried out through various stages: creativity, management or directed growth, delegation, coordination and cooperation. The transition from one stage to another involves different types of crises: a crisis of leadership, autonomy, control, bureaucratic bans, and an upgrade crisis. The peculiarity of its model is to justify the sequence of periods: the growth of both evolution and systemic transformations as revolutions. Accordingly, the period of revolution must propose new methods of management that form the basis of evolutionary development in the coming period. The importance of this scholarly work is hard to exaggerate; let us just mention that it was first published in the Harvard Business Review in 1972 and reprinted in this journal in 1998. The dichotomy "revolution - evolution" in the theory of change management is a cornerstone, since depending on the type of change, the implementation strategies and methods are determined. The overwhelming majority of researchers agree with this classification of change and build a management system accordingly. Revolutionary change is understood as a radical transformation, which is often very quickly implemented in the organization and leads to a shift of emphasis in management from one paradigm to another. Evolutionary changes, on the other hand, imply gradual development through the acquisition of new qualitative properties. The issue of development as a whole is an important part of the concept of change management in the enterprise, because it is precisely in order to ensure continuous or sustainable development that change must take place. On the other hand, in the absence of changes in the activity of the enterprise, it loses its ability to adapt to environmental conditions and therefore loses its viability. This allows us to argue that change is an integral feature of today's business environment, with the increase in the turbulence of this makes the need for continuous change. If we compare revolutionary changes with similar phenomena in social systems, it becomes clear that the degree of novelty of the updated management methods is rather relative. On the other hand, the impact of crises on the emergence of an urgent need for a radical rethinking of activities is indisputable. The same can be said about the identity of evolutionary changes in the process of improving living organisms in biological systems, which is considered in the context of the theory of evolution. The gradual adaptation of the system to the external environment through the formation of appropriate qualities and properties, although reflecting the evolution process, but in the current environment of business is quite debatable. Supporters of evolutionary theory (R. Nelson and S. Winter<sup>3</sup>) view the process of evolution as the emergence of new routine procedures to replace the old ones to provide adaptation, which can lead

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<sup>1</sup>Greiner, L. (1972). Evolution and Revolution as Organizations Grow. Harvard Business Review. Vol. 50. July–August, № 4, pp. 37–46.

<sup>2</sup>Lewin, K. (1947). Frontiers in group dynamics. Human Relations, no. 1, pp. 5–41.

<sup>3</sup>Nelson R. R. and Winter S. G. (1982). An evolutionary theory of economic change. London: The belknap press of Harvard University Press, Cambridge, Massachusetts.



to the trap of competence, which is the emergence of organizational through the key competencies of the organization. Thus, it is worth agreeing to consider revolutionary and evolutionary changes as two opposite types, which occur at different stages of the life cycle of the enterprise and allow to achieve the set goals. Regarding the essence of strategic change, revolutionary changes are more in line with their content, given that they are the origin of crises, the overcoming of which is the immediate task of implementing strategic change.

In addition to this dichotomy, L. Greiner's concept also touches upon another important aspect of considering an organization in relation to managing change as its life cycle. The O. I. Matyushenko<sup>1</sup> provides a generalization of a number of models of life cycles developed by famous scientists, under the life cycle of enterprises offers to understand "the set of stages that create a complete circle of development over a certain period of evolution of the enterprise, each of which is characterized by a specific system and strategies, peculiarities of resource potential formation and achieved results of operation". The key in most models is the presence of an appropriate driving factor in the development at each stage of the life cycle: biological phases, organizational structure, personal characteristics of the founder or stages of enterprise development. One of the most well-known models of the life cycle of an enterprise was designed by I. Adizes<sup>2</sup>, not only looks at the individual successive stages, but also determines what traps an enterprise may encounter in the early stages of development that will lead to early death. Accordingly, in the context of the theory of the life cycle of the enterprise, strategic changes should be aimed at preventing the organization from falling into the appropriate traps that can provoke crises. In spite of L. Greiner's postulate that crises cause revolutionary changes and ensure the transition of the enterprise to a new level of functioning, we believe that the "traps" according to I. Adizes, like the crises according to L. Greiner, are bifurcation points that reflect the critical state of the system in the conditions uncertainty, instability and fluctuation, after which the enterprise either moves to a more orderly level or to chaos. It is worth noting that not every crisis is a point of bifurcation, as it depends on its depth and controllability. On the other hand, the unpredictability of the attractors of the point of bifurcation significantly complicates the management's ability to manage the enterprise at an appropriate interval, which can lead to its decline and / or loss. It is the proper implementation of strategic change management that will not, on the one hand, slow down the process of change as immanent for a modern enterprise, and on the other hand, will not allow this process in the case of its acquisition of the nature of a "nuclear reaction" instead of a positive effect to drive the enterprise.

The concepts and models under consideration are complex, considering both contextual and process aspects of changes in the enterprise. Many change management models have a context dimension, that is, the definition of the enterprise subsystems to which change is to be directed. In Weisbord's<sup>3</sup> Organizational Diagnosis model, which includes purpose as meaning to the existence of the organization and its significance, structures as mechanisms of division of labor between the team and units, interaction as a culture of the organization, remuneration, auxiliary mechanisms as methods of coordination of activities of employees and leadership, which is located in center of these cells and unites them all together with the external environment. Such a model can be successfully used to diagnose the enterprise, depending on the need to implement changes in a single cell or their totality, taking into account the stable relationship between them - this implies that if changes are introduced in one of the cells, there will necessarily be corresponding fluctuations in the others that require either the development of a pre-selected change implementation plan for the interconnected cells, or the appropriate timely response to these fluctuations.

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<sup>1</sup>Matyushenko, O. I. (2010). Zhy'ttyevy`j cy`kl pidpry`yemstva: sutnist`, modeli, ocinka. [The life cycle of the enterprise: essence, models, estimation]. Problemy` ekonomiky` – Problems of Economy. no. 4. pp. 82-91.

<sup>2</sup>Adizes I. (2004). Managing corporate lifecycles: how to get and stay at the top. Santa Barbara: Adizes Institute Publication.

<sup>3</sup>Weisbord, M. R. (1976). Organizational Diagnosis: Six places to look for trouble with or without a theory. Group and Organization studies. 1(4), pp. 430-447.

The connection between the elements of the organization was proved and substantiated in the work of R. H. Waterman, T. J. Peters, J. R. Phillips<sup>1</sup>, which was called the theory "7S". They offered the following components: Strategy, as a personification of plans and lines of action that determine the allocation of resources, fixes commitments to take certain actions over time to achieve the desired goals; Structure as an internal decomposition of an organization that reflects the hierarchy of units, subordination, authority, and responsibilities; systems as a combination of procedures and routines that take place in an organization; staff as a personification of employees of the organization with the appropriate qualification level, experience and education; style describes the way you manage an organization, including organizational culture; skills. The key in this model is shared values, which are centered between the above elements, at the intersection of their interconnections, thereby providing interaction and coordination. It is important to understand that the first three components reflect the hard elements in the organization and the other four represent the soft ones. In fact, for the successful implementation of strategic change, the interdependence between these elements must be taken into account, since changing the hard elements is more time-consuming and costly, and the soft elements require gradual and careful implementation to achieve perception.

The interaction of soft and hard elements also takes place in the "Iceberg of Change Management" model developed by W. Krüger<sup>2</sup>. In this model, only 10% of management is focused on a surface that reflects the quality, time and cost of change within problem management. 90% are invisible because they are below the surface and are about recognition, attitudes and behavior, which accordingly requires the development of management of expectations and beliefs, influences and policies.

One of the models of strategic change is developed by J. Balogun, V. Hope Hailey<sup>3</sup>. The essence of this model is developed by the authors of the change kaleidoscope, which consists of several rings, where the external reflects the organizational context, the internal includes design options by changing the way to determine the proper base for implementation of change), point of reference (place of initiation of change: top-down or bottom-up), style (authoritarian or participatory), goals (goal of introducing change within people's attitudes, values and outcomes), levels (wide range of levers and interventions that need to be deployed over four systems: technical, political, cultural and interpersonal), and roles (determining responsible for change) through the tools that lie between these rings: time (crisis or long-term development), content (which requires a degree of change: reorganization or transformation, or will change to all or part of an entity) retention (what organizational assets, characteristics or practices should be retained during the changes to maintain competitive advantage), diversity (level of uniformity of values, norms, staff, subcultures in the organization), opportunity (level of individual, managerial and organizational readiness (ability) to introduce change and experience), potential (what resources the organization may spend on planned changes in the form of financial investments, people or time), readiness for change (the willingness of workers and the organization to change, represented by motivation and understanding of their need), the authorities (or the leaders of the organization and change leaders with sufficient authority to implement the changes, or are under the influence of other stakeholders). The proposed model is distinguished by the variety of tools and complexity of approaches to implementing directly strategic changes, to which the authors attribute a matrix classification by two criteria: the end result, which involves transformation or reorganization, and the nature of change (big bang or incremental). Accordingly, four types of strategic change are formed: evolution, adaptation, revolution, and reconstruction. The essence of the model is to justify and select the right toolkit within the proposed kaleidoscope model for the implementation of each type

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<sup>1</sup>Waterman, R. H., Peters, T. J., & Phillips, J. R. (1980). Structure is not organization. *Business Horizons*. no. 23(3). pp.14-26.

<sup>2</sup>Krüger W. (2000). *Excellence in Change: Wege zur strategischen Erneuerung*. Wiesbaden. 186 p.

<sup>3</sup>Balogun, J. and Hope Hailey, V., Gustafsson S. (2016). *Exploring Strategic Change*. Fourth edition published. Edinburgh Gate: Prentice Hall. 258 p.

of change. The approach considered is of particular value in terms of identifying the tools of change within the relevant context.

An approach to distinguishing the spheres of change in the form of factors is given in the model of W. Burke, G. Litwin<sup>1</sup>. Its peculiarity is the isolation of mutual influence of the environment and individual and organizational efficiency, mission and strategy, leadership and organizational culture. The last four elements are attributed by the authors to transformational factors. Most of the factors attributed to the author are transactional, which includes structure, systems that integrate policies and procedures, management practices, working climate, motivation, individual needs and values, requirements for the task and personal abilities, individual and organizational efficiency. Leadership is seen by authors as a central area that combines organizational culture, systems, management practices, mission and strategy with structure. Within the framework of this approach, the spheres are considered as factors, their number is much wider than in the previous models, which allows to consider in more detail aspects of the enterprise activity when implementing strategic changes.

Another model of change that is noteworthy is the "biological corporation" developed by F. J. Gouillart and J. N. Kelly<sup>2</sup>. This model is based on genetic architecture in 4 directions: reframing within current goals, restructuring as a stage of ensuring the level of efficiency that corresponds to its competitiveness, revitalization as establishing a relationship with the environment, restoring as transforming the human side of the process and the spirit of the enterprise. Accordingly, reframing is about developing perspectives, performance metrics, and achieving mobilization. The restructuring involves building an economic model, streamlining the physical infrastructure, and redesigning the architecture of the works (in fact, re-engineering). Revitalization involves concentrating on the needs of the market, producing new types of business, and changing information technology. Recovery involves the development of a reward system, the organization of individual training and the development of the organization. The above 12 elements are referred to by the authors as "chromosomes" that interact with one another.

The models developed contain elements of different approaches to understanding the essence of change management. One of the most common approaches is context, which considers what needs to be directly changed in an enterprise: systems, subsystems, or elements. This allows you to form a subject area for strategic change and answers the question: "what needs to be changed". Most of the models discussed above include elements of a context approach, depending on the actuality of the authors' attention to the subsystem set and their interaction.

The second group of theories is presented with a contextual approach, which considers the factors that cause change. Within this theory, we distinguish externalist, mechanistic, behavioral and environment approaches, where external sources of change are considered, which fully corresponds to the essence of strategic changes in the enterprise, a special feature of them, which distinguishes them from the organizational changes as a whole, and / or interaction with the environment. Immanent changes are considered solely from the point of view of internal sources, within the framework of integral theory the sources interact. Accordingly, within this approach you can find the answer to the question: "why change occurs".

The next, one of the most common approaches is process. The most important part of this approach is to determine the sequence of organizational change. The above model of L. Greiner reflects the process of enterprise evolution through the implementation of evolutionary and revolutionary changes. The life cycle of I. Adizes is also based on a process approach. One of the most famous processes is K. Lewin's sequence: "thawing - changing - freezing." This approach answers the question: "how changes are made".

Situational and systemic approaches are consistent with the traditional vision of management within the framework of general management theories. The first acts as a superstructure to the contextual one, which also takes into account the interconnection with the external environment, but

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<sup>1</sup>Burke, W. and Litwin G. (1992). A causal model of organizational performance and change. *Journal of Management*, Vol. 18. no. 3. pp. 523–545.

<sup>2</sup>Gouillart, F. J., Kelly, J. N. (1996). *Transforming the Organization*. McGraw-Hill.

emphasizes the internal structure of the enterprise as the interaction of individual elements and subsystems, which causes emergence of properties and obtaining synergistic effects from combining individual performance within a single whole. This approach, as well as the context one, is actually present in each of the models considered, which emphasizes the interconnection between the structural elements of the organization, the type of interconnection and the interaction between them, which determines the specific character of the enterprise as a system in the process of implementing strategic changes. In terms of methodological development, this approach should be recognized as one of the most progressive and promising, as it allows the most comprehensive view of the enterprise and develop directions for managing strategic change on it. Accordingly, within the framework of this approach, it is possible to determine the question: "what tools to manage change".

The situational approach is close to the contextual one, where emphasis is placed on the sources of change, but not in the general sense, but in the context of the situation at the right time, which determines the circumstances of the enterprise and requires the best ways to achieve the goals. The values of internal variables at the appropriate time must be taken into account. This approach involves linking specific management methods and concepts with the relevant characteristics of particular situations to achieve the goals of the enterprise's operation in the most efficient way. Based on the existing methodology of change management in general and strategic in particular, the situational approach allows us to determine the most appropriate methods of implementation of changes at the appropriate time interval, which allows to answer the question: "what priorities within the changes should be put".

A number of studies by the authors allow us to distinguish an adaptive approach that, in accordance with its name, implies management according to the need to adapt to environmental conditions. According to the researchers, the essence of adaptation lies in establishing a correspondence between the strong positions of the enterprise and the requirements of the operating environment, which requires the implementation of the principles of consistency and openness. This approach provides answers to the question "how best to implement change."

Considering the complexity of organizational change implementation processes regarding staff perceptions, it is worth highlighting a group of approaches that looks at perceptions of staff changes at the individual and group levels, among which we isolate behavior, cognitive, psychodynamic, humanistic, competence approaches. Their essence should be considered in relation to managing resistance to change. The introduction of management tools within these approaches can reduce resistance to change and find the answer to the question: "how to get support in the course of change".

Based on the described models and approaches to understanding the essence of change, we will provide our own concept of strategic change management.

The concept of strategic change management in an enterprise includes a number of components, interconnections and interdependencies that allow you to get a unified vision of modern management philosophy. First of all, it is worth paying attention to the substantive scope of strategic change implementation. Within the framework of the concept, this area is seen as the basis for change, which requires the specificity of management metaphors. Strategic changes require the revision of all the components of the subject area, with the identification of sources and subsequent advancement in structure in accordance with the management practices of each metaphor (machine; political system; organism; flow and transformation).

The next element of the concept is the life cycle of the enterprise. Strategic changes must program it. Each enterprise, according to life cycle theory, is matched to the stages of the industry life cycle, which allows us to argue for a close relationship between these concepts. As part of the development strategy, companies can claim to increase their share or search for new segments in the existing market, or to develop other industries. Ensuring that the life cycle of an industry enterprise is consistent is one of the goals of strategic change.

Related to the life cycle within the concept of strategic change management is environmental analysis. As it has been proven, strategic changes always act as a response of the enterprise to the influence of the environment and interaction with it.

Strategic change management involves making management decisions on the basis of available information, analysis, monitoring of the environment by implementing management functions of the managing entity on the managed entity in accordance with principles and laws. Strategic change management is similar to the classic vision of management, with the difference that it is carried out by specific methods, has its own goals and is based on the use of appropriate potential. Thus, in order to successfully manage strategic change, it is necessary to have a methodological basis that will serve to make specific management decisions in a high level of environmental uncertainty.

Implementing any enterprise strategy requires planning and spending resources. The most noticeable mistakes in strategic management are felt by the enterprise due to the irrational use of available resources. In the broad sense, ensuring strategic change is linked not so much to existing resources but to strategic potential. Unlike a resource approach, strategic potential should reflect the ability of an enterprise to acquire the desired status in the future, using its subjective components represented by intellectual and social capital, values and personal and professional qualities of executives, who are able to ensure the combination of available and economic resources. active components.

Another element of the concept is situational analysis combined with risks. The uncertainty of the environment is widely recognized in modern times, which is considered in the context of the analysis of the interaction of the enterprise with the environment. In addition, the enterprise activity can be considered not as a continuous function, but as a sequence of discrete states, each of which depends on the state of the enterprise as a system and the influence of environmental factors, and on the degree of influence of these factors depending on the circumstances at each individual moment.

The last element of the concept, which, unlike the previous ones, has the lowest level of determination, which allows it to be classified as "soft" elements, is to build stakeholder engagement.

Thus, the developed elements of the concept of strategic change management allow us to systematically address the goals of ensuring the competitiveness of the enterprise in the long run, its stability and development. The use of the above tools allows to develop and implement effective management decisions, to form the configuration of internal strategic potential for realization of the enterprise movement along a predefined trajectory, which is the essence of strategic changes.

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## **Part 2. STRATEGIC MANAGEMENT TOOLS AS A BASIS FOR ENSURING COMPETITIVE DEVELOPMENT OF ENTERPRISES**

### **2.1. MARKETING LOGISTIC BUSINESS MODEL OF VEGETABLE MARKET DUE TO ZONAL SPECIALIZATION**

The objects of the food market infrastructure include wholesale and retail enterprises, auctions, fairs, exhibitions, commodity exchanges, communication systems, state institutional structures. Providing trade, marketing, logistics, information services, as well as services in storage, transportation and packaging of products, objects of the food market infrastructure should contribute to creating the necessary conditions for the effective operation of market entities and timely provision of food products to the population<sup>1</sup>.

Despite some positive changes, the level of infrastructure development remains a deterrent to the functioning of the market. In the system of commodity sales of agricultural products, the organization of the functioning of wholesale markets needs to be improved; information provision of market participants is inadequate, and the data they submit requires further processing.

In order to improve the functioning of the food market of the region and to establish stable relations between commodity producers and consumers, the creation of a network of inter-regional wholesale food markets, which will promote the effective promotion of food products to the final consumer, should be considered as a priority<sup>2</sup>. Solving this problem requires the processing of data of different classes (geographical coordinates, distances, volumes of supplying goods, prices for goods, etc.) with the help of information systems<sup>3</sup>. It is necessary to justify the choice of both the information system and the methods of data processing in it.

Effective system of distribution of vegetable products through wholesale markets, firstly, guarantees to agricultural producers and processing enterprises equal conditions of sales of products; and secondly, it provides the supply of food for the population of cities and large settlements during the year; thirdly, weakening the dependence of agricultural products on the monopoly of processing enterprises; and finally provides support for the national commodity producer.

In addition, the organization and functioning of the broad-based wholesale market in Ukraine<sup>4</sup> will significantly weaken the activities of intermediary structures, accelerate the advancement of trade flows, reduce losses and preserve the quality of vegetable products.

The presence of numerous sales channels does not always provide a positive result, enterprises can focus on contractual relations, a stable market.

Determining the variant of products transportation, finding optimal deliveries of products from the manufacturer to the consumers processing enterprises, wholesalers and retailers will allow reducing costs and increase profitability<sup>5</sup>.

The vegetable market should be distinguished as a separate, independent one. The reason for this is a large total volume of manufactured goods and a part in the production of all regions of Ukraine. After the transition of Ukrainian agriculture to market relations in trade of vegetable products, certain changes took place.

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<sup>1</sup> Kolomiets K. (2017): Improvement of the system of state regulation for providing the food security of the state. *Market Infrastructure* 12, p.49-54

<sup>2</sup> Allen T, Prosperi P. (2016): Modeling Sustainable Food Systems. *Environmental Management* 57, p.956-975

<sup>3</sup> Li X. (2014): Operations Management of Logistics and Supply Chain: Issues and Directions. *Discrete Dynamics in Nature and Society* 2014, p.1-7

<sup>4</sup> On the production and circulation of organic agricultural products and raw materials (2014) Legislation of Ukraine. <http://www.zakon.rada.gov.ua/go/425-18>. Accessed 02 Apr 2019

<sup>5</sup> Li X. (2014): Operations Management of Logistics and Supply Chain: Issues and Directions. *Discrete Dynamics in Nature and Society* 2014, p.1-7

The cancellation of the state order and the suspension the operation of the procurement network of consumer cooperatives for the objective reasons led to a sharp decrease in the volumes of production and sale of vegetable products by large specialized enterprises, as well as significant structural changes in production and production sales channels, and there was a tendency to reduce purchases of vegetable products by procurement organizations and increased sales of vegetables on the market, to commercial structures<sup>1</sup>.

Vegetable producers have some difficulties with the marketing of grown products. The implementation of these products is significantly complicated by the lack of small commodity formations, which on a contractual basis could guarantee the supply of a certain volume of products to wholesale markets or processing enterprises. Instead, most intermediaries raise sales prices or supply imported products to the market, artificially reducing the access of most people to vegetables consumption.

Since the development of vegetable growing significantly depends on the deepening of its agro-industrial integration with industrial processing of vegetables and the expansion of processing and storage of products in the places where they grow, they should study carefully the possibilities of rational use and increase of capacities of the canning industry, strengthening the material and technical base of subsidiary industries of farms and ensuring their vegetable stores, certain changes in the structure of production<sup>2</sup>.

At this stage of development of vegetable products market, an important element of forecasting is also the definition of promising yields. As you know, the level of productivity of vegetable crops depends on many factors: soil and climatic conditions, technologies of cultivation and storage of crop, varietal composition, etc. It should be noted that these factors are interrelated and operate in the complex.

In the conditions of limit and sharp increase on prices for resources, one of the main factors in ensuring the maximum return on investment and the necessary rates of increase in volumes and achievement of the stability of the production of vegetable products is to improve the territorial organization of the industry in the system of the agro-industrial complex of Ukraine.

Data processing in the regions of the country showed a significant differentiation of indicators of production and consumption of vegetables in general in Ukraine<sup>3</sup>. Satisfaction of the offer on the market of vegetable products within separate regions is considerably different, and these differences increase with years.

At the same time, there is a situation in which the high level of vegetables consumption in some cases corresponds to a relatively low level of production<sup>4</sup>.

The solution of this problem can be achieved by using the optimal distribution of vegetable production in the natural and climatic zones of Ukraine, taking into account the production volumes of the main types of vegetables and the necessary minimum amount of their consumption.

In our opinion, the target function may be the minimum cost of transportation of vegetable products. However, for its calculation it is necessary to forecast the supply volumes and consumption volumes of vegetable products for the current and subsequent years.

As it was already noted, the vegetable production gradually shifted from the Steppe and Forest-Steppe zones to Polissya and the Carpathians zones (Table 1).

As a result of the performed calculations (Table 2): the data on optimal volumes of sales of the main types of vegetable crops in the natural and climatic zones of Ukraine were obtained, taking into account the volumes of their production and the minimum required consumption volumes.

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<sup>1</sup> Agbo M., Rousselière D., Salanié J. (2015): Agricultural marketing cooperatives with direct selling: A cooperative–non-cooperative game. *Journal of Economic Behavior & Organization* 109, p.56-71

<sup>2</sup> Pysarenko V. (2018): Marketing of vegetable products (methodical and practical aspects): Market of vegetable products: market conditions, subjects. [https://agromage.com/stat\\_id.php?id=324](https://agromage.com/stat_id.php?id=324). Accessed 02 Apr 2019

<sup>3</sup> Pysarenko V. (2018): Marketing of vegetable products (methodical and practical aspects): Marketing research of consumers, the retail and wholesale segment of the vegetable market. [https://agromage.com/stat\\_id.php?id=325](https://agromage.com/stat_id.php?id=325). Accessed 02 Apr 2019

<sup>4</sup> The future of food and agriculture (2017): Food and Agriculture Organization of the United Nations, Rome. <http://www.fao.org/3/a-i6583e.pdf>. Accessed 02 Apr 2019



Taking into account the data of the conducted research, the lack of production of tomatoes was found, which does not allow to sufficiently satisfy the needs of the population of the country (the deficit is 658,2 Kt). However, in the production of other types of vegetable products there is a surplus in relation to the needs of the population.

*Table 1. Summary table of zonal production of vegetable products in Ukraine  
(average for 2010 - 2018): Kt*

Index	Cabbage	Cucumbers	Tomatoes	Table beets	Carrots	Onions
Production, total	1556,8	591,9	1137,9	580,6	505,9	556,9
Including zones:						
Steppe	558,1	90,8	809,3	168,4	135,6	268,9
Forest-Steppe	502,3	239,6	241,8	221,2	210,8	192,5
Polissya	348,8	222,4	46,5	149,8	132,7	72,4
Carpathians	147,6	39,1	40,3	41,2	26,8	23,7
Need, total	1381,6	460,5	1796,1	506,6	460,5	460,5
Including zones:						
Steppe	601,1	200,4	781,4	220,4	200,4	200,4
Forest-Steppe	487,5	162,5	633,7	178,7	162,5	162,5
Polissya	214,3	71,4	278,6	78,6	71,4	71,4
Carpathians	78,7	26,2	102,4	28,9	26,2	26,2

As variables volumes of vegetable sales for the main consumption are defined:

$X_{SS}$  – realization in the Steppe zone of the products produced in the zone of the Steppe;

$X_{SF}$  – realization in the Steppe zone of products produced in the Forest-Steppe zone;

$X_{SP}$  – realization in the Steppe zone of products produced in the Polissya zone;

$X_{SC}$  – realization in the Steppe zone of products produced in the Carpathian zone;

$X_{FS}$  – realization in the Forest-Steppe zone of products, produced in the Steppe zone;

$X_{FF}$  – realization in the Forest-Steppe zone of products produced in the Forest-Steppe zone;

$X_{FP}$  – realization in the Forest-Steppe zone of products, made in the Polissya zone;

$X_{FC}$  – realization in the Forest-Steppe zone of products, made in the Carpathian zone;

$X_{PS}$  – realization in the Polissya zone of products, produced in the Steppe zone;

$X_{PF}$  – realization in the Polissya zone of products, produced in the Forest-Steppe zone;

$X_{PP}$  – realization in the Polissya zone of products, produced in the Polissya zone;

$X_{PC}$  – realization in the Polissya zone of products, produced in the Carpathian zone;

$X_{CS}$  – realization in the Carpathian zone of products, produced in the Steppe zone;

$X_{CF}$  – realization in the Carpathian zone of products, produced in the Forest-Steppe zone;

$X_{CP}$  – realization in the Carpathian zone of products, produced in the Polissya zone;

$X_{CC}$  – realization in the Carpathian zone of products, produced in the Carpathian zone.

Thus, it's a cabbage - 175.2; cucumbers - 131,4; table beets - 73,9; carrots - 45,4; onions - 97,0 Kt. Therefore, we consider it expedient to satisfy the lack of tomatoes for the subsequent periods at the expense of imports, and for future periods to plan (predict) higher production volumes.

*Table 2. The matrix of redistribution of vegetable production by natural and climatic zones of Ukraine, (on average for 2010 - 2019): Kt*

Index	Cabbage	Cucumbers	Tomatoes	Table beets	Carrots	Onions
Steppe - Steppe	558,1	90,8	781,4	168,4	135,6	200,4
Steppe - Forest Steppe	–	–	27,9	–	–	–

Index	Cabbage	Cucumbers	Tomatoes	Table	Carrots	Onions
Steppe - Polissya	–	–	–	–	–	–
Steppe - Carpathians	–	–	–	–	–	–
Forest-Steppe - Steppe	14,8	77,1		42,5	48,3	
Forest-Steppe – Forest-Steppe	487,5	162,5	214,8	178,7	162,5	162,5
Forest-Steppe - Polissya	–	–	–	–	–	–
Forest-Steppe - Carpathians	–	–	–	–	–	2,5
Polissya - Steppe	–	32,5	–	–	16,5	–
Polissya - Forest-Steppe	–		–	–		–
Polissya - Polissya	214,3	71,4	46,5	78,6	71,4	71,4
Polissya - Carpathians	–	–	–	–	–	–
Carpathians - Steppe	28,2	–	–	9,5	–	–
Carpathians - Forest-Steppe	–	–	–	–	–	–
Carpathians - Polissya	–	–	–	–	–	–
Carpathians - Carpathians	78,7	26,2	40,3	28,9	26,2	23,7
Surplus	175,2	131,4		73,9	45,4	97,0
Lack	–	–	658,2	–	–	–
Cost of redistributed production, ths. UAH	84288	688290	179955	119534	215748	5750
Economic effect, ths. UAH	46999	283584	527	58625	119856	1815

Predicted volumes of vegetables production and consumption in the nature and climatic zones of Ukraine, taking into account the dynamics of population and average consumption of vegetable products, are given in Table. 3.

Table 3. The size of the territory, population density and vegetable production zones (segments) in Ukraine (average forecast for 2015 - 2030)

Nature and climatic zone	Territory, ths. km <sup>2</sup>	Population, ths persons (on the average)		Production fund				Consumption fund	
				Total, Kt		Per capita, kg		Total, Kt	
		2020	2030	2020	2030	2020	2030	2020	2030
Cabbage									
Steppe	250,2	19732,8	19454	568,3	589,5	28,8	30,3	647,2	669,2
Forest-Steppe	202,9	15421,8	15204	505,8	524,5	32,8	34,5	505,8	523
Polissya	123,8	6844,2	6747,5	348,4	361	50,9	53,5	224,5	232,1
Carpathians	26,7	2444,3	2409,8	145,7	151,1	59,6	62,7	80,2	82,9
Total	603,8	44443,4	43815	1568,9	1629,9	35,3	37,2	1457,7	1507,2
Cucumbers									
Steppe	250,2	19732,8	19454	248,6	256,8	12,6	13,2	217,1	223,7
Forest-Steppe	202,9	15421,8	15204	237,5	246,3	15,4	16,2	169,6	174,8
Polissya	123,8	6844,2	6747,5	78,7	79,6	11,5	11,8	75,3	77,6
Carpathians	26,7	2444,3	2409,8	32	33,3	13,1	13,8	26,9	27,7
Total	603,8	44443,4	43815	582,2	600,3	13,1	13,7	488,9	503,9
Tomatoes									
Steppe	250,2	19732,8	19454	818,9	846,2	41,5	43,5	818,9	832,6
Forest-Steppe	202,9	15421,8	15204	239	247,8	15,5	16,3	640	650,7
Polissya	123,8	6844,2	6747,5	41,7	43,2	6,1	6,4	284	288,8
Carpathians	26,7	2444,3	2409,8	37,6	39	15,4	16,2	101,4	103,1

Nature and climatic zone	Territory, ths. km <sup>2</sup>	Population, ths persons (on the average)		Production fund				Consumption fund	
				Total, Kt		Per capita, kg		Total, Kt	
		2020	2030	2020	2030	2020	2030	2020	2030
Total	603,8	44443,4	43815	1137,8	1178,6	25,6	26,9	1844,4	1875,3
Onions									
Steppe	250,2	19732,8	19454	270,3	280,1	13,7	14,4	217,1	223,7
Forest-Steppe	202,9	15421,8	15204	195,9	202,2	12,7	13,3	169,6	174,8
Polissya	123,8	6844,2	6747,5	69,1	71,5	10,1	10,6	75,3	77,6
Carpathians	26,7	2444,3	2409,8	18,8	19,5	7,7	8,1	26,9	27,7
Total	603,8	44443,4	43815	546,7	574	12,3	13,1	488,9	503,9
Table beets									
Steppe	250,2	19732,8	19454	163,8	169,2	8,3	8,7	236,8	243,2
Forest-Steppe	202,9	15421,8	15204	220,5	229,6	14,3	15,1	185,1	190
Polissya	123,8	6844,2	6747,5	147,2	152,5	21,5	22,6	82,1	84,3
Carpathians	26,7	2444,3	2409,8	37,2	38,8	15,2	16,1	29,3	30,1
Total	603,8	44443,4	43815	586,7	604,6	13,2	13,8	533,3	547,7
Carrots									
Steppe	250,2	19732,8	19454	130,2	138,1	6,6	7,1	213,1	221,8
Forest-Steppe	202,9	15421,8	15204	211,3	215,9	13,7	14,2	166,6	173,3
Polissya	123,8	6844,2	6747,5	130,7	135,6	19,1	20,1	73,9	76,9
Carpathians	26,7	2444,3	2409,8	22,2	22,9	9,1	9,5	26,4	27,5
Total	603,8	44443,4	43815	493,3	512,6	11,1	11,7	480	499,5

Using the optimal distribution of vegetable production in the natural and climatic zones of Ukraine, taking into account the production volumes of the main types of vegetables (cabbage, cucumbers, tomatoes, table beets, carrots and onions): and the minimum amount of their consumption, the sizes of optimum sales volumes of the main types of vegetable crops are prognosed according to natural and climatic zones of Ukraine for 2020 - 2030, taking into account the volumes of their production and the minimum-necessary consumption volumes (Table 4).

Table 4. The matrix of redistribution of vegetable products according to the natural and climatic zones of Ukraine (forecast for 2020- 2030): Kt

Index	Cabbage	Cucumbers	Tomatoes	Table beets	Carrots	Onions
2020						
Production, total	1568,2	596,8	1137,2	568,7	494,4	554,1
Need, total	1457,7	488,9	1844,3	533,3	480	488,9
Realization according to zones						
Steppe - Steppe	568,3	75,3	41,7	163,8	130,2	18,8
Steppe-Forest-Steppe	—	—	—	—	—	—
Forest-Steppe - Steppe	—	—	—	35,4	22,2	—
Forest-Steppe - Forest-Steppe	505,8	217,1	37,6	185,1		69,1
Forest-Steppe - Polissya	—	—	—	—	—	—
Forest-Steppe - Carpathians	—	—	—	—	—	—
Polissya - Steppe	78,9	—	—	—	44,7	—
Polissya - Forest-Steppe	—	—	—	—	—	—
Polissya - Polissya	224,5	26,9	239	29,3	166,6	169,6
Carpathians - Steppe	—	—	—	—	16	

Index	Cabbage	Cucumbers	Tomatoes	Table	Carrots	Onions
Carpathians - Forest-Steppe	–	–	–	–	26,4	6,2
Carpathians -Polissya	–	–	–	–	–	–
Carpathians -Carpathians	80,2	169,6	818,9	82,1	73,9	217,1
Surplus	110,5	107,9		35,4	14,4	65,2
Lack	–	–	707,1	–	–	–
Cost of sold products, ths. UAH	1497,15	488,9	1137,2	560,95	522,5	494,5
2030						
Production, total	1626,1	616	1176,2	590,1	512,5	573,3
Need, total	1507,2	503,8	1875,2	547,6	499,5	503,8
Realization according to zones						
Steppe - Steppe	589,5	77,6	43,2	169,2	138,1	19,5
Steppe-Forest-Steppe	–	–	–	–	–	–
Steppe-Polissya	–	–	–	–	–	–
Steppe-Carpathians	–	–	–	–	–	–
Forest-Steppe - Steppe	1,5	–	–	74	22,9	8,2
Forest-Steppe - Forest-Steppe	523	223,7	39	155,6		63,3
Forest-Steppe -Polissya	–	–	–	–	–	–
Forest-Steppe -Carpathians	–	–	–	–	–	–
Polissya - Steppe	–	–	–	–	42,6	–
Polissya - Forest-Steppe	–	–	–	8,7		14,3
Polissya - Polissya	232,1	27,7	247,8	30,1	173,3	174,8
Polissya -Carpathians	–	–	–	–	–	–
Carpathians - Steppe	–	–	–	–	18,2	–
Carpathians - Forest-Steppe	–	–	–	25,7	27,5	–
Carpathians -Polissya	–	–	13,6	–	–	–
Carpathians -Carpathians	82,9	174,8	832,6	84,3	76,9	223,7
Surplus	118,9	112,2	–	42,5	13	69,5
Lack	–	–	699	–	–	–
Cost of sold products, ths. UAH	1546,67	503,8	1179,6	574,7	542,5	509,43

Taking into account the research data, the sizes of optimum volumes of realization of the main kinds of vegetable crops according to the natural and climatic zones are prognosed. As a result of the calculations, there was a shortage in the production of tomatoes, which in 2020 will be 707,1 Kt, and in 2030 - 699 Kt, which does not allow to adequately satisfy the needs of the country population. However, in the production of other types of products, their surplus is observed in 2020-2030 relative to the needs of the population. Therefore, we consider it expedient to satisfy the lack of tomatoes for the subsequent periods at the expense of imports and to plan larger production volumes. The surplus of vegetable products can be rationally exported to countries where their shortage is observed and, therefore, the realization at favorable prices, for example, to the northern regions of the EU or The Baltic countries is possible.

At the same time, the share of large enterprises in the total production volume is decreasing. There was also a decrease in the crop area by 40 ths, ha, gross yield - by 2 Mt, yields - by 22 %. Reduced yields are decreasing both for large and small farms<sup>1</sup>.

The supply of vegetables in Ukraine is formed, mainly due to production, which is

<sup>1</sup> Kobylinska T. (2018): Statistical evaluation of plant-growing branch. The journal of Zhytomyr State technological university Series: Economics 83(1):66-70

concentrated in households (Fig. 1).

In 2018, there continues to be a positive tendency of increase in production volumes, which is likely to continue in the near future (Fig.2). The reason for this is the dynamic development of the vegetable market in Ukraine in recent years, which is still not saturated. The high profitability of this industry for the correct approach to growing and marketing, even in the overproduction season, in contrast to other segments of agro-industrial complex can be indicated as a distinctive feature.

In reference to the forecast of the vegetable subcomplex development, structural changes in production are expected: the share of specialized agricultural enterprises and peasant farming will increase, and households will decrease.

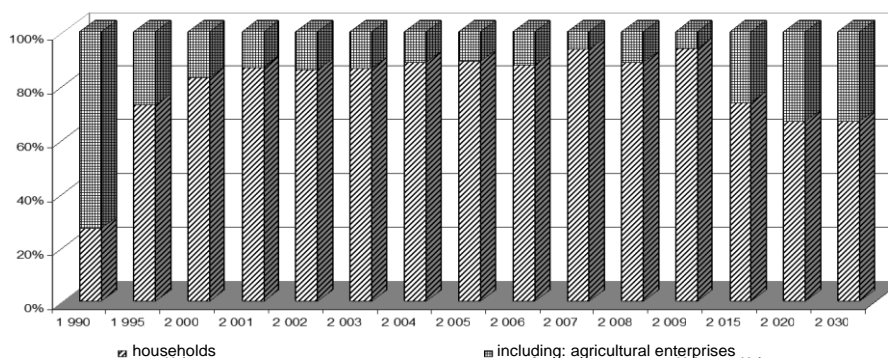


Fig. 1. The share of agricultural enterprises and households in the vegetables production, 1990 – 2030

There was a tendency towards a decrease in the purchase of vegetable products by stock organizations and increased sales of vegetables on the market, to commercial structures, as well as on payroll. The prices for vegetable products did not contribute to the expanded reproduction of production and did not compensate for production costs.

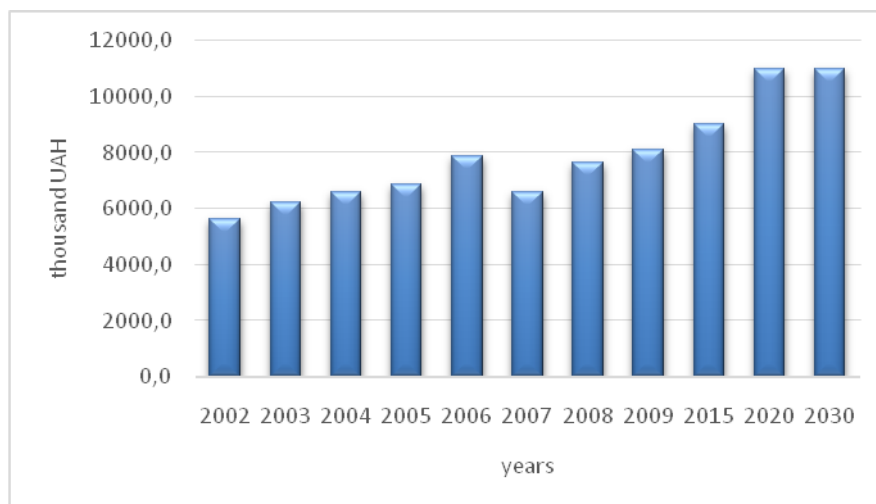


Fig. 2. The dynamics of vegetable production, 1990 – 2030

The economic crisis has led to a violation of the interaction of vegetable subcomplex individual spheres: production, processing, storage and marketing of vegetable products, the processes of self-regulation and self-survival of its spheres began. In these conditions, the share of households in the vegetables' production has increased and their production in agricultural enterprises has decreased. In recent years, there has been a tendency to increase the production of vegetables in households (up to 90%) and decrease in agricultural enterprises (Table 5). At the same time, vegetable farming in farms has not yet become a high-value industry. One of the directions in its development may be the creation of specialized farms with fluctuations in the area of vegetables

from 20 to 100 hectares. A specialized farm must be integrated with similar or processing ones.

Table 5. Production of vegetables and melons in Ukraine by categories of farms, Kt, 1990 – 2030

Year	All categories of farms	Including: agricultural enterprises	Among them		The share of households in all categories of farms
			farms	households	
1990	6666,0	4872,0	0,0	1794,0	26,9
1995	5880,0	1607,0	27,4	4272,7	72,7
2000	5821,3	986,3	82,6	4835,0	83,1
2001	5906,8	772,5	90,7	5134,3	86,9
2002	5827,1	706,7	109,0	5120,4	87,9
2003	6538,2	827,6	131,7	5710,6	87,3
2004	6963,9	768,6	142,5	6195,3	89,0
2005	7295,0	780,7	156,1	6514,3	89,3
2006	8058,0	974,2	223,9	7083,8	87,9
2007	6835,2	713,4	168,2	6121,8	89,6
2008	7965,1	1108,6	275,9	6856,5	86,1
2009	8341,0	1120,1	223,7	7221,0	86,6
2015	10000	1436	337	8564	85,6
2020	12000	2069	387	9931	82,8
2030	13000	2430	406	10570	81,3

Depending on the area of arable land on the household and the availability of sales market, the level of energy efficiency and direction of specialization, the total area under the vegetables and the structure of their planting are determined. For farms, different options for the development of vegetable production are acceptable, taking into account the specific conditions of production and the availability of market niches. As the foreign experience of farms activity shows, growing of 3 to 4 main vegetable crops or specializing in monoculture growing is common and effective.

The largest production volumes of vegetables in the period 2000-2018 were recorded in Dnipropetrovska (506.9 Kt) and Khersonska (488.3 Kt) oblast (Fig. 4).

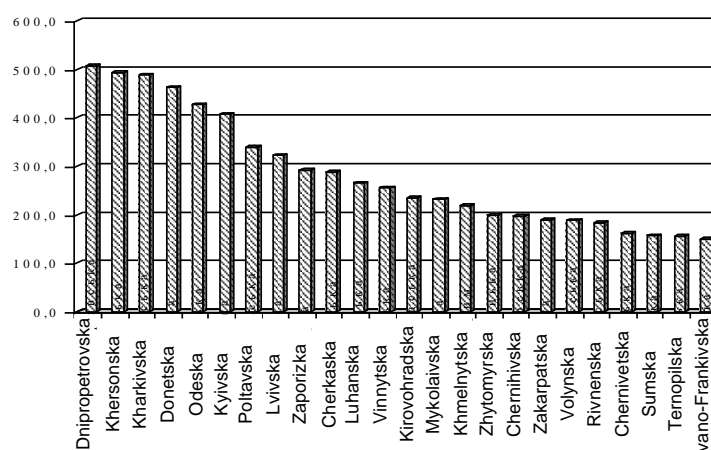


Fig. 3. Production volumes of vegetables in 2000 – 2018 in the regions, Kt

In the demand pattern for vegetable products, the main share falls on food - 72.1% and feed - 14.3%. In the long term, by 2020, the share of volumes used for feed (up to 18%) is likely to increase, and losses will significantly decrease (from 6% in 2008 to 2% in 2020) (Fig. 5). At the same time, the physiological need for vegetable consumption will gradually be reached.

In recent years there has been a tendency towards a decrease in the consumption of vegetables. So, in 1990, the production of vegetables per capita amounted to 141 kg, in 2000 - 91.9

kg, in 2010 - only 101.7 kg. Reducing consumption is due to lower productivity, transformation of ownership in the state. Consumption of vegetables since 2000 increases, but the recommended rate - 158 kg per person per year - should be achieved in 2020.

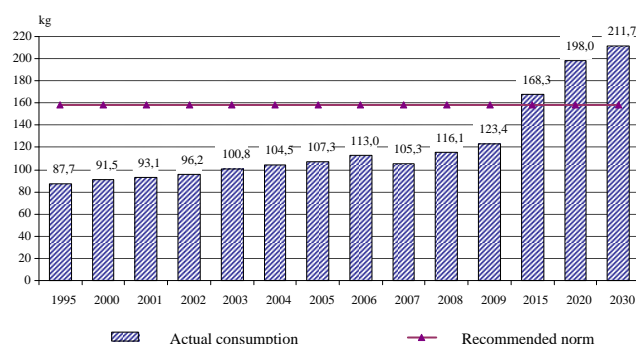


Fig. 4. Provision of population needs in vegetables per one person, kg / year, 1990 – 2030

In recent years, there has been a positive trend towards increase in the vegetable production in Ukraine (Table 6).

Table 6. Vegetable production in Ukraine in 2000 – 2018

Index	Year								
	2000	2001	2002	2004	2013	2015	2016	2017	2018
Gross yield, Kt									
Vegetables, total	6666,4	5879,8	5821,3	6963,9	7295	8058	6835,2	7965,1	8341
open-ground vegetables	6416,1	5607,4	5584,5	6697,7	7018,5	7755,3	6547,5	7669,8	7967
closed-ground vegetables	250,3	272,4	236,8	266,2	276,5	302,7	287,7	295,3	374
Yield, c / ha									
Vegetables, total	149	120,2	112,3	148,7	157,1	171,4	152,3	173,9	182,8
open-ground vegetables	144,2	115,4	108,2	143,8	152	165,9	146,8	168,5	175,7
closed-ground vegetables	4,8	4,8	4,1	4,9	5,1	5,5	5,5	5,4	7,1
Gathered area, ths.m <sup>2</sup>									
Vegetables, total	447,2	489,3	518,6	468,2	464,4	470,3	448,8	457,9	456,36
open-ground vegetables	445,0	485,7	516	465,7	461,8	467,6	446,1	455,3	453,46
closed-ground vegetables	2,2	3,6	2,6	2,5	2,6	2,7	2,7	2,6	2,9

The production of vegetables in all categories of Ukrainian farms has stabilized in recent years and is about 8 million tons per year. In 2018, the production of open-ground vegetables increased by 36.8% compared with 2000, the production of green peas increased 3 times, tomatoes - by 33.0, cabbage - by 55.1, beets - by 31.9, onions - by 86.3, carrots - by 49.2%. In 2018, the production of almost all vegetable crops increased both in agricultural enterprises and in households<sup>1</sup>.

Fluctuations in production and consumption of vegetables are correlated with changes in the balance of vegetables (Table 7).

<sup>1</sup> Kernasyuk Yu. (2018): Vegetable market of open ground and greenhouse. <http://agro-business.com.ua/agro/ekonomichni-hektar/item/10912-rynok-ovochiv-vidkrytoho-gruntu-ta-teplychnykh.html>. Accessed 02 Apr 2019

*Table 7. Balance of vegetables (including canned and dried products in fresh weight): Kt*

Index	Year							
	2000	2002	2005	2007	2017	2018	2020	2030
Production	5575,5	5607,9	6845,4	6585,3	7640,1	8341,0	12000,0	13000,0
Change in stock at the end of the year	180,9	-154,8	176,4	-76,5	620,1	534,0	590,0	630,0
Import	26,1	70,2	90,0	142,2	320,4	209,0	118,0	126,0
Export	27,0	31,5	135,0	268,2	225,9	312,3	814,0	1102,0
Spent on feed	655,2	912,6	1092,6	1025,1	1094,4	1200,0	1400,0	1600,0
Spent on planting	77,4	78,3	81,0	89,1	91,8	108,0	95,0	100,0
Losses	159,3	123,3	353,7	463,5	550,8	600,0	420,0	450,0
Consumption Fund	4501,8	4687,2	5096,7	4958,1	5377,5	5796,0	8799,0	9244,0
Calculated per person, kg	91,5	96,2	107,3	105,3	116,1	125,9	198,0	211,0
Number of population	49,2	48,7	47,5	47,1	46,3	46,0	44,4	43,8

In recent years, an increase in the consumption of vegetables has been observed, primarily due to the increase in their production, mainly in the private sector, and not at the expense of production in large agricultural enterprises, as the main source of income of vegetable products to the trading network. Consumption of vegetables per capita has grown. To a certain extent, this is the result of a reduction in the population. A higher level of production is responsible for a higher level of consumption of vegetable products per capita. Of course, there is a surplus of consumption over production.

As a result of processing data from<sup>1</sup>, the deficit of production and supply of vegetable products by regions of Ukraine was projected. Calculations are presented in Table 8.

*Table 8. Determination of volumes of vegetables supplies by regions of Ukraine, 2018*

Consumers	Deficit, Kt	Suppliers	Surplus, Kt	Volume share	Supply volumes, Kt	Economic effect, ths. UAH
Kyiv region	-130,5	Zhytomyr region	52,4	0,12	15,6	3029,3
		Vinnitsa region	66,8	0,15	19,6	22285,2
		Cherkasy region	130,6	0,29	37,8	34665,2
		Poltava region	175,3	0,39	50,9	20744,3
		Chernihiv region	23,4	0,05	6,5	3292,1
Total		-	448,5	1	130,5	84016,1
Ivano-Frankivsk region	-9,5	Zakarpatskyi region	92,2	0,28	2,6	1596,5
		Lviv region	100,9	0,31	3,0	1610,4
		Ternopil region	55,4	0,16	1,5	779,0
		Chernivtsi region	83,5	0,25	2,4	748,0
Total		-	332,0	1	9,5	4733,8
All	-140	-	780,5		140	88749,9

The deficit of vegetables production by regional farms of Kyiv and Ivano-Frankivsk regions, 130.5 Kt and 9.5 Kt respectively was revealed. This necessitates the redistribution of products at the expense of interregional supply of vegetables. At the same time it is necessary to consider additionally the solution of the problem of optimization of transport flows.

The national food market of Ukraine is heterogeneous in its structure, so each region has its own conditions for the vegetables production in particular and the functioning of the vegetable

<sup>1</sup> Squares, gross collections and yields of crops, fruits, berries and grapes (2018) State Statistics Committee of Ukraine. Statistical bulletin. <http://agroua.net/statistics>. Accessed 02 Apr 2019



market in general.

In recent years, an increase in the consumption of vegetables has been observed, primarily due to the increase in their production, mainly in the private sector, rather than at the expense of production in large agricultural enterprises as the main source of vegetable supply to the trading network. Consumption of vegetables per capita also increased. To a certain extent, this is the result of a reduction in the population. A higher level of production is responsible for a higher level of consumption of vegetable products per capita. Of course, there is a surplus of consumption over production.

There is a positive tendency to increase production volumes, which is likely to continue in the near future. The reason for this is the dynamic development of the vegetable market in Ukraine in recent years, which, however, remains not saturated. Produced for consumption in fresh and processed form products will be delivered to the wholesale and retail trade, as well as the public catering network.

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## 2.2. PREREQUISITES FOR THE FORMATION OF COMPETITIVE STRATEGIES FOR THE DEVELOPMENT OF ORGANIC PRODUCTION

Recently, more and more attention has been paid to the development of organic production in the scientific development of competitive development strategies for Ukrainian agricultural enterprises. So, one of the basic sectors for the introduction of organic production with the least cost for the enterprise is vegetable production. Moreover, these products are finished cycle and ready for consumption without additional processing. At the same time, the priority direction for the development of the industry is also determined by the rapid pace of revenue generation and opportunities for expansion of production.

Vegetable farming is a complex and time consuming industry in the agricultural sector. The full development of this industry is constrained by separate reasons. They can be grouped into two main areas. The first is the formation of production capacity of enterprises and their supply. And, secondly, it is the management of demand generation processes and marketing activities. The problems with the formation of the proposal include: low level of agrotechnology during the growing of vegetable crops due to insufficient resources and technological support; non-compliance of domestic vegetable products with European standards (European supermarkets only sell products with quality and safety certification) and so on. The problems of managing the processes of demand satisfaction include: lack of necessary capacity for refining, and storage and processing; low development of agro-logistics and lack of professional branding; lack of efficient infrastructure <sup>1</sup>. At the same time, it is also necessary to add the basic problems of attracting organic production, which relate to both the production direction and the management system in the formulation of competitive enterprise development strategies <sup>2</sup>.

According to experts of the agrarian market, the volume of its vegetable segment in Ukraine even exceeds the grain one. However, the unsatisfactory level of development of this market (unstructured, significant losses in commodity marketing, high weight of the speculative component in pricing, etc.) indicate the need to justify prospective measures for its development. Therefore, the main objectives of this study are to determine the current state of functioning of the enterprise in the market of vegetable products, in particular, to analyze its production and marketing opportunities, as well as to provide a proposal to improve the economic efficiency of sales of goods through the use of individual tools of competitive development and marketing activities.

Vegetable production can be considered as the industry with the highest profits in the agricultural sector. It should be noted that the vegetable market is strategically important and indispensable in ensuring the food security of the state. Especially when organic production is raised. The vegetable industry also fully supports the food industry, processing industry and the functioning of the agri-food market. At the same time, this sphere is not only ensuring the domestic food security of the state, but also produces quality export-oriented goods. It should be noted that the value added is extremely high.

For the vast majority of vegetables, the available selling prices, with the exception of individual years, actually allow not only to fully cover all the production costs of growing them, but also provide a sufficiently high level of profitability, which usually exceeds 100%. Therefore, this line of agribusiness is quite economically viable and guarantees stable demand for products from both domestic and foreign food markets <sup>3</sup>.

Features of production of organic vegetables are formed on two sides. First, it is a fairly competitive commodity for foreign trade. In general, imports of vegetables have a highly seasonal character, and therefore do not have a significant impact on the domestic food market price

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<sup>1</sup> Kernyasuk, Yu. (2019). Open-source and greenhouse vegetables market. Agrobiznes syogodny. <http://agro-business.com.ua/agro/ekonomichni-hektar/item/10912-rynok-ovochiv-vidkrytoho-gruntu-ta-teplychnykh.html>

<sup>2</sup> Sevidova, I. O. (2013): Vplyv yakosti ovochevoyi produktsiyi na konkurentospromozhnist ovochivnytstva [Impact of quality of vegetable products on competitiveness of vegetable production]. Visnyk LNAU. Seriya «Ekonomika APK» - Bulletin of LNAU. AIC Economics Series, № 20(1): pp. 302-306.

<sup>3</sup> [http://www.agrosvit.info/pdf/9\\_2009/9.pdf](http://www.agrosvit.info/pdf/9_2009/9.pdf)

situation, since its largest volumes tend to be between December and April. In recent years, imports of vegetables and processed products have been dominated by imports. At the same time, domestic agribusiness has significant potential to increase exports in this direction, because the demand for these products remains high in the world market, and the culture of healthy nutrition drives the population of many countries of the world to increase the consumption of various types of vegetables in fresh or processed form <sup>1</sup>.

Secondly, it is the domestic market. Analysis of the state of vegetable production shows that the specified direction of agribusiness remains one of the most sustainable and promising for development in all categories of farms.

In the agricultural sector, the production of open and closed ground vegetables is distinguished. At the same time, 98.7% of the total harvested area is in the open ground vegetables, whereas in the closed area it is only 1.3%. However, the share of closed-area vegetables in the overall structure of all these crops has almost doubled in recent years. That is, interest in the development of greenhouse vegetables grows annually. The largest share in the structure of areas of vegetable crops is traditionally occupied by tomatoes, cabbage, cucumbers and onions, which, respectively, is 17, 16, 13 and 12%, respectively.

Considerable areas in the cultivation of vegetable crops belong to carrots and beetroot, the share of which in the structure, respectively, reaches 10 and 9%.

If we analyze in more detail over the last three years the dynamics of changing the area under vegetable crops, the highest growth rates were observed in the cultivation of vegetable marrows (114.5%): table pumpkins (107.3%): sweet pepper and bitter pepper (105.4%). ) and garlic (103.4%). At the same time, there was a marked decrease in the area under eggplant and cabbage.

About 85% of all vegetables are produced by households. The smallest share is in the production of tomatoes (67.5%): onions (84%) and carrots (88.2%): and the highest - garlic (99.1%): table pumpkins (98.9%): vegetable marrows (97.8%) and cucumbers (95.1%). Among the regions, the largest number of vegetables is grown in Kherson (1268.9 thousand tons, or 13.7% of the total): Dnipropetrovsk (702.6 thousand tons and 7.6%): Kharkiv (687.7 thousand tons and 7.4%): Kyiv (581.1 thousand tons and 6.3%) and Mykolaiv regions (554.5 thousand tons and 6%). In general, compared to 2000, the production of vegetables increased 1.6 times, even with the reduction of their harvested area, which was not least achieved primarily due to a significant increase in the average yield by 1.8 times.

In the overall production, the share of closed soil vegetables is growing every year and already reached 6.1% last year. At the same time, 30.1% of the whole volume, or almost every 3 kg of cucumbers out of 10 was produced in greenhouses, while the share of tomatoes was about 11.7%. However, current volumes of vegetable production in greenhouse farms are insufficient to meet the growing seasonal demand for these products, as evidenced by the analysis of imports of certain species <sup>2</sup>.

Vegetable prices have traditionally been seasonally volatile. However, due to certain peculiarities of their formation in the market, due to the high level of competition from millions of their main producers - households, as well as thousands of agricultural enterprises and imports, price trends are more predictable.

In January-April 2018, compared to the same period last year, average prices for vegetables in Ukraine increased by 8.3%. At the same time, compared to January 2018, the market prices of vegetables on the average for the last 4 months increased by 168.9%. At the same time, the value of indoor vegetables has traditionally increased in the winter and has declined since the beginning of spring.

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<sup>1</sup><https://agravery.com/uk/posts/show/dumka-vitciznaniy-rinok-viavivsa-ne-gotovij-do-rizkogo-zbilsenna-eksportu-ogirkiv-z-tureccini>

<sup>2</sup> Batuyk, L. A.; Kvyatko, T. M.; Babko, N.M. (2018): *Suspilni rynkovi transformatsiyi: hlobalnyy kontekst* [Public Market Transformations: Global Context]. *Visnyk KHNTUSG : ekonomichni nauky - Bulletin of HNTUSG. Economic science*, no 193, pp. 110-120.

Along with the economic components of competitive advantage formation, questions about the peculiarities of the management system and strategic management at the vegetable companies are raised <sup>12</sup>. The vast majority of them are engaged in the production of non-organic products, which shapes their marketing and logistics activities. Implementation of marketing and logistics tools in full in the existing conditions of functioning of enterprises in the field of agribusiness is possible only in some cases. For example, product policy formation is minimized. This is due to a number of factors, both objective and subjective <sup>3</sup>. In particular, nowadays, according to the demand of the market, it is necessary to introduce organic production, and most enterprises produce their products according to the traditional method. Therefore, small volumes of organic production form a small amount of supply. At the same time, this shapes the pricing policy in this segment of the market <sup>4</sup>. Paying more attention to the manufacturing component negates the possibility of increasing competitiveness through managerial and economic mechanisms. Therefore, the policy of communication and promotion is only through the formation of distribution channels. At the same time, the possibilities of using logistic activities only at the level of transport logistics are minimized.

The research made it possible to single out a leading enterprise, which at a high level carries out its production and commercial activity in the market of vegetable crops and year-round grows and supplies hundreds of tons of fresh vegetables to the markets of the whole country. The company offers cucumbers and tomatoes according to its basic commodity policy. The company specializes in the production of greenhouse cucumber, which allows you to consistently obtain a quality and competitive product that is in demand, both in wholesale and retail.

Cucumber - an annual herbaceous plant, creeping pumpkin family, and the only vegetable, the fruits (herbs) of which are eaten in unripe form. The cucumber family is India. And the name "cucumber" comes from the Greek "aoros", which means "immature". Subsequently the word "aoros" was transformed into "augros" and then into "cucumber". Today, cucumber culture is ubiquitous and has many varieties and varieties.

For many years, the company has been using low-volume technology for growing vegetables, which is based on the cultivation of vegetables in small volumes of greenhouse substrate (peat, coconut, peat dry pressing, mineral wool). This requires accurate dosing and irrigation control, which is achieved by drip irrigation. In a system of low-volume technology, seedlings are grown in pots with a cruciform bottom. Seeds are planted two in one pot filled with substrate. When planting seedlings are not removed from the pot, as the roots sprout through the cruciform bottom directly into the substrate, which preserves the root system as much as possible. At low-volume technology of cultivation of a cucumber both bee-dusting hybrids, and self-dusting are used.

Fresh cucumbers prepared for packaging should not be moist. They are packed in boxes in accordance with DSTU 13359, 17812, 20463, tight enough flush with the edges of the container to prevent damage during transportation. Each packing unit must contain cucumbers of one size group. The packaging for the packaging of fresh cucumbers must be whole, strong, dry, clean and odorless. Fresh cucumbers are transported by all means of transport in accordance with the rules of carriage of perishable goods, acting on this type of transport. When transporting in refrigerated cars and auto-refrigerators, the air temperature must be maintained from 5 to 10 °C. When transporting

<sup>1</sup> Batuyk, L. A.; Kvyatko, T. M.; Babko, N.M. (2018): Transnatsionalizatsiya natsionalnykh ekonomichnykh system v umovakh hlobalizatsiyi [Transnationalization of national economic systems in the conditions of globalization]. Visnyk KHNTUSG : ekonomichni nauky - Bulletin of HNTUSG. Economic science, no 200, pp. 95-103.

<sup>2</sup> Zinchuk, T.O. (2013): Kon'yunktura yevropeyskoho ahromoho rynku: tendentsiyi ta perspektyvy dlya Ukrainy [Daylight saving time for the european market: trends and opportunities for Ukraine]. Zbirnyk naukovykh prats TDATU - Collection of scientific works of TDATU, No 2 (14): pp.96–105.

<sup>3</sup> Sevidova, I. O. (2018): Formuvannya stratehiyi na osnovi naukovykh doslidzhen z vykorystannyam instrumentariyu nekooperativnoyi teorii ihor [Formation of strategy based on scientific research using the tools of non-cooperative game theory]. Efektyvna ekonomika - An efficient economy, no 3., pp. 35-45.

<sup>4</sup> Kvyatko, T. M. (2014): Ahromarketynh yak skladova pidvyshchennya efektyvnosti diyalnosti vitchyznyanykh silhospidpryyemstv [Agromarketing as a warehouse for efficient business activities of foreign companies]. Naukovy visnyk LNUVMB - Scientific Bulletin of LNUVMB, no 1 (1): pp. 213-218.

fresh cucumbers in refrigerated cars, the height of the stacking boxes should be at least 2.2 - 2.4 cm, depending on the type of rolling stock.

Tomatoes are the second most popular crop grown indoors. Modern cultivation technologies ensure high yield and quality of the resulting product.

Tomato today is one of the most popular crops due to its valuable nutritional and dietary qualities, a great variety of varieties, with different ways of cultivation. In the assortment of varieties and hybrids of the enterprise there are tomatoes both for open ground, and for film and glass greenhouses. The main qualities of tomatoes - unpretentious to the growing conditions, disease resistance, high yield and excellent taste of the fruit. To properly select a variety or hybrid of tomato, you must take into account the conditions of cultivation, soil type, level of agricultural technology, and most importantly - the choice depends largely on the purpose of the tomato.

Fresh tomatoes prepared for packaging should not be moist. Tomatoes are packed in boxes in accordance with DSTU 17817, 20463 in dense rows flush with the edges of the container. Tomatoes are transported by all means of transport in accordance with the rules of carriage of perishable goods in force on this type of transport. Fresh tomatoes must meet the requirements specified. Fully formed dairy matured tomatoes are allowed to be transported without cooling in the summer only over long distances (for inter-regional transportation). Tomatoes of red degree of maturity are allowed to be transported by refrigerators and trucks for local delivery. When transporting fresh tomatoes in refrigerated cars, the height of the stacking boxes should be not less than 1.6 cm and not more than 2.4 cm.

Store fresh tomatoes in containers in closed, clean ventilated areas. Shelf life of tomatoes: red (yellow, orange): pink degree of maturity at a temperature of 0-20 °C - no more than 1 - 1.5 months; brown degree of maturity at a temperature of 4-6 °C, milky degree of maturity at a temperature of 8-10 °C, green degree of maturity at a temperature of 12-14 °C - no more than 1 month. The relative humidity of the air during storage should be 85-90%. High quality standards and continuous laboratory control of key parameters of the technical process, along with modern cultivation technologies and monitoring of conformity of final products, is a guarantee.

The company pays special attention to the high quality of products, which is achieved through:

- automation and continuous control of all stages of production, from sowing to harvesting to transportation;
- introduction of the newest technologies of growing vegetable crops, application of an effective system of drip irrigation, introduction of new productive varieties;
- availability of an agrochemical laboratory that uses modern methods of diagnostics and control over the proper nutrition of plants, soil condition, the rate of minerals in vegetables, etc.

The company regularly undergoes routine inspections at the State Sanitary and Epidemiological Service of Ukraine, the results of which produce a sanitary and epidemiological conclusion on production. Also, the products of the factory regularly undergo various studies, which is confirmed by the presence of protocols. The warranty period of storage of production - no more than 15 days (at an air temperature of 10-14 °C and relative humidity of 85-95%). The company is interested in reliable suppliers and contractors who, being professionals in their field, make a significant contribution to improving the rhythm and reliability of the enterprise.

The main share in the channels of sale of cucumbers at the enterprise is occupied by the intermediary organizations which buy large commodity lots of cucumbers for further resale at higher prices. So, the main production of the enterprise is cucumber - a popular crop for growing in sheltered soil. Its advantages in comparison with other classical cultures are rather fast introduction into fruition and receipt of production in short terms. This allows farmers to cover costs and make a profit for a short period. However, the laws of the market, the greater the supply of goods, the lower the price for it. This is what we see every year. The attractive price of cucumbers, which allows producers to cover the costs and make a profit, remains, depending on the weather, until the end of April. Therefore, in order to profit from the sale, the harvest of gherkin cucumbers must start from late January to early February. It should be noted that the retail selling price of cucumbers in the

summer can be reduced to 8-10 UAH / kg, and in winter and spring - even exceed 150 UAH / kg. Therefore, due to the peculiarities of production and sales of cucumbers, it is possible to adapt individual marketing activities. In this case, the attraction of organic production will increase the prices of sales by 2-3 times, which will be influenced by the constantly increasing demand for organic products.

Along with the economic components of competitive advantage formation, questions about the peculiarities of the management system and strategic management at the vegetable companies are raised. So, the vast majority of them are engaged in the production of non-organic products, which shapes their marketing and logistics activities. The implementation of marketing and logistics tools in full in the existing conditions of operation of enterprises in the field of agribusiness is possible only in certain cases. For example, product policy formation is minimized. This is due to a number of factors, both objective and subjective. In particular, nowadays, according to the demands of the market, it is necessary to introduce organic production, and most enterprises produce their products according to the traditional method. Therefore, small volumes of organic production form a small amount of supply. At the same time, this shapes the pricing policy in this segment of the market. Paying more attention to the manufacturing component negates the possibility of increasing competitiveness through managerial and economic mechanisms. Therefore, the policy of communication and promotion is only through the formation of sales channels. At the same time, the possibilities of using logistic activities only at the level of transport logistics are minimized.

The system of competitive marketing strategies of enterprises in theory should include strategies for the formation of competitive advantages, strategies for ensuring the competitiveness of enterprises and strategies for their competitive behavior. It should be noted that the main feature of the formation of these strategies for the conditions of activity of agricultural enterprises is the impossibility of their rapid and full implementation through a number of factors of organizational, economic and managerial nature.

In particular, with regard to the problems of the organizational part, the primary strategy of the enterprises is to ensure the fullest utilization of the existing production facilities of the enterprises. For years, agrarian and technological base has been formed in agrarian production, the updating of which is not possible for a factor of rapid response to changes in the market environment. That is, such a strategy of generating competitive advantages as a differentiation strategy, and the main production strategies to ensure the competitiveness of enterprises - commodity-market, resource-market and technological strategy - in most cases will not be able to be updated or applied at all to agrarian enterprises in the short term. It should also be noted that the main negative factor for increasing the competitiveness of agrarian enterprises is time, which is why the rapid response to the market situation is one of the most important and important tasks that they face.

Enterprise development strategies should include not only the continued production of vegetable products, but also the continued involvement of organic production. Today, a very small amount of manufactured goods is organic, so the ever-increasing demand for it is a good incentive to increase supply. Organic production, first of all, requires changes in the production component of the enterprise. And, secondly, the introduction of appropriate organizational changes in the enterprise management system will allow to expand economic opportunities through full use of marketing policies. Further introduction of marketing activity will also allow the producer to obtain additional economic effect, to expand marketing channels and to form the optimum terms of sale of vegetable production during the year, and thereby to increase the profitability of the business.

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### **2.3. INNOVATIVE MECHANISM FOR IMPROVING ORGANIZATION OF MANAGEMENT BY MARKETING ASSORTIUM ON ENTERPRISE**

The economic essence of the problem of assortment formation consists in planning virtually all types of activities aimed at product selection for future production and marketing on the market and bringing the characteristics of these products in line with the requirements of consumers. Formation of the range of products - is a continuous process that lasts throughout the life cycle of the product, from the moment of origin of the idea of its creation and ending with the withdrawal from the product program<sup>1</sup>.

The system of assortment formation includes the following main points:

1. Determination of current and future needs of customers, analysis of the ways of using this product and the characteristics of consumer behavior in relevant markets.
2. Estimation of existing analogues of competitors in the same directions.
3. Critical assessment of products already produced by the company, both from the manufacturer's standpoint and from the buyer's point of view.
4. Solving questions about possible changes in the range and diversification of products at the expense of different production lines.
5. Consideration of proposals for the creation of new products, improvement of existing, as well as new ways and areas of application of goods in accordance with the requirements of buyers.
6. Study the possibilities of producing new or improved products, including price, cost and profitability issues.
7. Conduct testing (testing) of products with the account of potential consumers in order to determine their eligibility for key indicators<sup>2</sup>.

During the study, we found that the assortment policy of the dairy industry did not meet the current world requirements in three basic areas:

- 1) production, balanced by the composition and content of individual components;
- 2) the use of nutrients of vegetable origin in recipes of the basic assortment series;
- 3) production of medicinal and special purpose.

In our opinion, the main factors limiting the possibilities of optimizing the range of dairy products are:

1. The shortage of free financial resources from producers and processors of milk, which determines the impossibility of timely replacement of old equipment, the use of advanced technologies, the allocation of necessary funds for the advertisement of new types of products.
2. Low solvency of the population, which became the main reason for lower consumption of milk and dairy products and reduce their share in the food market.
3. Taste and benefits of consumers, traditions and specifics of building a diet, expressed in distrust of low-fat dairy products, in the pursuit of naturalness and ecological purity of food, the prevalence of taste features of food over its physiological full value<sup>3</sup>.

Taking into account the situation in the dairy industry and on the basis of the accumulated experience in the field of assortment formation and management, we consider it necessary to propose the use in the enterprise of the mechanism of assortment formation on the principles of marketing (Fig. 1).

The organizational and economic mechanism of assortment formation is a combination of relationships that provide a coherent and expedient activity aimed at managing raw material reserves, improving material and technical supply, saturation and enhancement of the range. Taking into account the situation in the dairy industry and on the basis of the accumulated experience in the

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<sup>1</sup> Pryadko, O.M. (2013): Management of the retail assortment under the conditions of national competition policy. Sci. magazine «BUSINESS – NAVIGATOR», 2013, p.105.

<sup>2</sup> Mushtai, V., Lyshenko, M., Makarenko, N( 2018): Provision of grain production in conditions of sustainable development. Monograph. LAP LAMBERT Academic Publishing, 2018, p. 241.

<sup>3</sup> Pryadko, O.M. (2013): Management of the retail assortment under the conditions of national competition policy. Sci. magazine «BUSINESS – NAVIGATOR», 2013, p.58.



field of assortment formation and management, we consider it necessary to propose the use in the enterprise of the mechanism of assortment formation on the principles of marketing (Fig. 1).

The organizational and economic mechanism of assortment formation is a combination of relationships that provide a coherent and expedient activity aimed at managing raw material reserves, improving material and technical supply, saturation and enhancement of the range.

The functioning of the organizational and economic mechanism of assortment formation is determined by the correlation between the factors of the internal and external environment, which is studied and evaluated in the course of marketing research. Its practical implementation of the mechanism of assortment formation is found in the development of a diverse marketing program. The marketing research of the assortment is a systematic measure to obtain operational information on data describing the current or prospective (predicted) status of the range of products produced, as well as analysis and mapping of data in the form necessary for solving the strategic and tactical tasks facing the firm<sup>1</sup>.

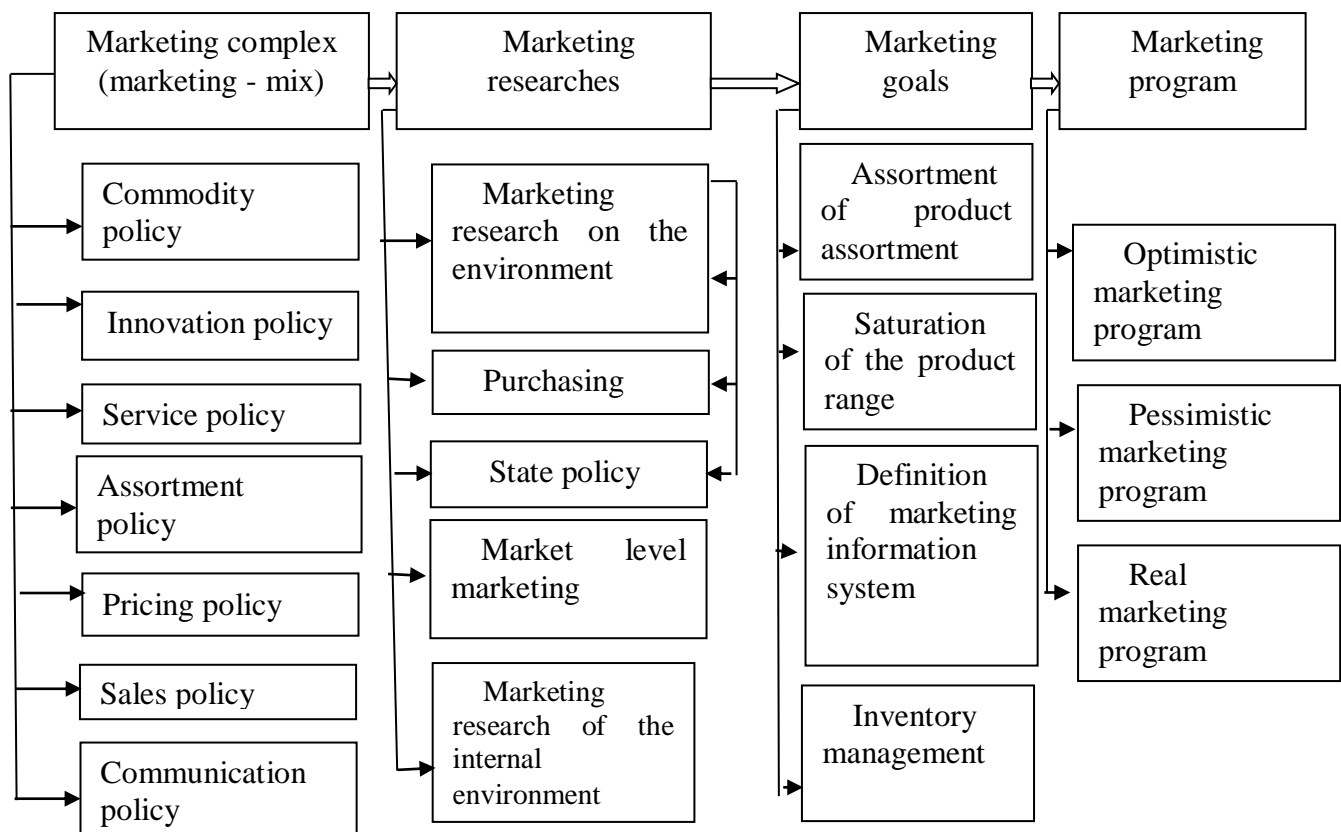


Fig. 1. Innovative mechanism of formation and management of assortment at the enterprise

Marketing research assortment is divided by the nature of the research on scheduled and unscheduled events. Planned events are a complex of marketing research aimed at obtaining a standardized volume (by number and composition) of a number of parameters necessary for tactical and strategic decision making in the market. Planned research is the daily basis of the work of the marketing department (marketing research) of the enterprise and is carried out in accordance with a timetable and clearly defined methodically defined tasks based on traditional methods of marketing research. Unplanned studies are carried out more often by external service firms to address local (periodically emerging) tasks, mainly associated with unexpected problems in the business of the firm. To solve the problem of unscheduled tasks of the firm, providing their solutions, often resort

<sup>1</sup> Romanchukevich, M.Ya.(2015): Milk Processing Industry: Information Management of Assortment Policy Management of Enterprises. Marketing in Ukraine, 2015, No. 5, p.332.

to the use of non-traditional methods of marketing research, the standardization of which is practically impossible<sup>1</sup>.

As a result of researches, namely observation of the measure of wholesale trade in dairy products manufactured by the company, we have identified the following tendencies of procurement:

- 1) There are clearly distinct advantages among clients, which are expressed in the prevailing purchases of weight or packaged products;
- 2) work with buyers of weight or packaged products has its own specifics;
- 3) consumers of bulk products are stably buying one product set;
- 4) consumers of packaged products react to the full aggregated assortment.

The marketing information obtained as a result of research was used by us in developing the marketing program of the enterprise development. Implementation of marketing program of each enterprise should be aimed at creating a complex of competitive advantages and effective use of the enterprise opportunities from the market to achieve the strategic goal of the enterprise. The marketing production program of the analyzing company should be a detailed and comprehensive plan for the production and sale of products, which characterizes the annual volume, nomenclature, quality and timing of the release of the necessary goods market. At the same time, the main targets will be the annual demand, the annual volume of supply, the most important nomenclature and range of production, the complexity of the unit or volume of production, production costs, projected market prices of sales. To ensure the effective functioning of the enterprise as a whole and management of its assortment policy, it is necessary to ensure the receipt of maximum cumulative income and to include in the production plan the most competitive and highly profitable products.

The tasks of developing a management production program are as follows:

1. To introduce new food products of mass and medical prophylactic purposes taking into account modern medical and biological requirements for improvement of the nutritional structure of the population.
2. Diversify the range of infant food products.
3. Provide the necessary profitability by increasing the range and achieving the economic output of production.
4. Optimize the production program of the enterprise, taking into account economic and mathematical methods.
5. Provide high quality products and enhance attention to certification and standardization, raw materials, finished products and quality systems.
6. Provide the basis for the development of integration ties with suppliers of raw materials.
7. To provide innovative and investment attractiveness of the assortment.

In order to ensure the conquest of new competitive positions, saturation of the market and, in general, increase the economic efficiency of production, it is necessary to develop diversified assortment, pricing policy, segment and position the market<sup>2</sup>.

The main directions of diversification of the enterprise's production at present, in our opinion, should be:

1. Growth of the range of "goods of health".
2. Increase in assortment at the expense of production of one product, differentiated depending on flavoring additives, fillings or fillers.
3. An increase in the number of product names in each product group due to the addition of new types of products with low fat content.

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<sup>1</sup> Sharko, V. V.(2015): Marketing management of commodity assortment. Economy and entrepreneurship: Sb. sciences etc. of young scientists and post-graduates: in 2 hours / Ministry of Education and Science of Ukraine, State University "Kyiv. nats econ Untitled Vadim Hetman "; Editorial: SI Demyanenko (ed.) [and others]. Kyiv: KNEU, 2015,Vip. 34-35, part 1, p.77.

<sup>2</sup> Fedoryak, R.M. (2014): Problematic Issues in the Formation of Assortment Policy of an Enterprise. Bulletin of the Kiev National University of Technology and Design. Series: Economics, 2014, № 4 (13): p.5.

Particular attention should be paid to the most cost-effective species and groups of dairy products when managing the range. Priority groups are to ensure the highest level of profitability of products. The production of these types of products must be provided with raw materials and other resources in the first place, and monitored by this is the supply service included in the first marketing block of the organizational structure<sup>1</sup>.

In order to achieve maximum product differentiation, its awareness and demand by end users, and hence to ensure the planned sales volumes and their growth, necessary for branding and positioning. We believe that when creating a brand in a company designed for a target group, it should be abstracted from images that can obsolete, go out of fashion, be close to only a limited number of consumers.

In modern conditions, in our opinion, brands that contain the name of the place of manufacturing of products or different neutral but positive images, for example: "Valley", "Flood Bows", etc., would be perceived adequately. At the next stages of assortment policy management, it is advisable to develop a product profile of products produced at different levels and to justify relevant market segments. Then it is necessary to determine the priorities of production of specific products, taking into account their maximum profitability. The second level product profile is the first-level grocery profile, divided into aggregated groups. At the same time, the differentiation, in our opinion, should not be carried out on the homogeneity of the types of products, as is traditionally happening, but in the form of release, that is, on packaging.

Assortment and quality management system (CYAJ) of goods is included as an organic part in the complex system of management of commercial activity of the enterprise. In turn, the assortment and quality management system includes three functional subsystems: the organization of planning (forecasting) and execution, control and coordination, each of which consists of a number of elements<sup>2</sup>.

Let's consider the composition of each of the subsystems included in the system of assortment management and quality of goods by the enterprise (Fig. 2): in the following sequence: organization, planning (programming) and execution; control and coordination.

Subsystem of organization of the assortment and quality management system includes: organization of information support, organization of methodical assistance to retail trade enterprises and studying consumer requirements, organization of advanced training of industry and retail workers, organization of studying domestic and foreign experience in the range and quality of manufactured and sold goods, participation in scientific and practical conferences, organization of sales, organization of legal and pretentious work. To implement elements of the subsystem planning, the system of management assortment and quality plays an important role in the organization of information support, which is carried out through the creation of information flows of secondary and primary data and the process of marketing research.

The significance of this element of the subsystem of the organization is due to the fact that the validity of marketing and management actions and decisions depends on the quality, timeliness, reliability, completeness and representativeness of the information.

Its implementation is carried out through the holding of appropriate meetings: - during the visit of the retail network of merchandisers - implementers, - during exhibitions, sales, exhibitions, shopping conferences<sup>3</sup>.

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<sup>1</sup> Hoptiyuk, A.(2013): Theoretical aspects of volume management and assortment structure of trade turnover of a trading enterprise. Formation of market relations in Ukraine, 2013, No. 10, p.85.

<sup>2</sup> Romanchukevich, M.Ya.(2015): Milk Processing Industry: Information Management of Assortment Policy Management of Enterprises. Marketing in Ukraine, 2015, No. 5, p.336.

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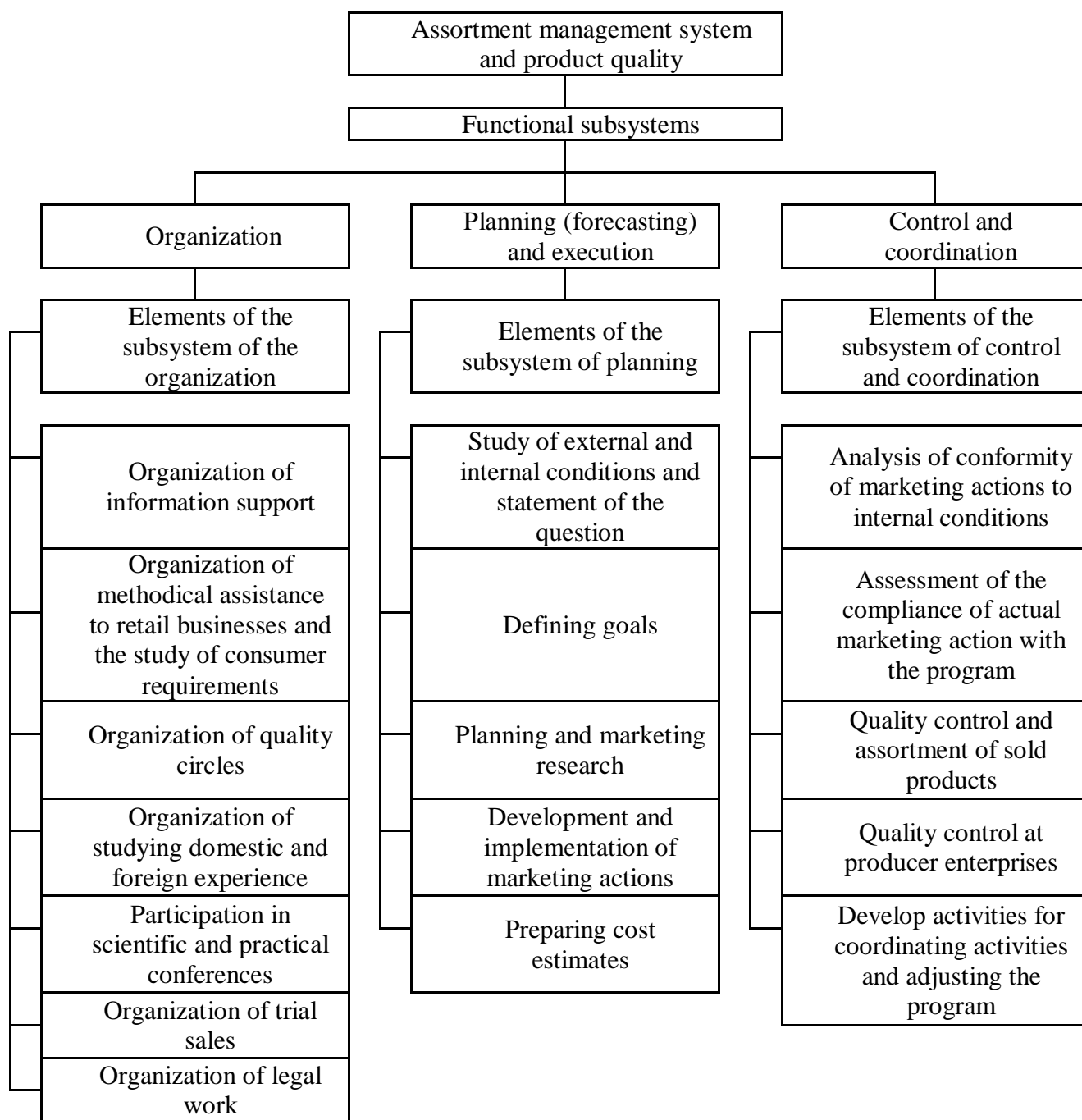


Fig. 2. Management system of assortment of production and quality of goods at the dairy enterprise

For the implementation of management in the field of assortment of products manufactured and improving the quality of goods, particular importance is currently being promoted by the professional development of the wholesale and retail trade staff, the level of their professional knowledge in the range and quality of goods of the relevant nomenclature. In quality circles, the state of affairs is analyzed at a specific site, proposals are being developed for improving product quality, productivity growth. Currently, in about fifty countries, work is organized on the type of quality circles. In our country, quality groups are created only in manufacturing industries. At the core of the management of the range of products and quality of dairy products of the enterprise is a set of standards regulating all activities of the enterprise in this direction. This work is being carried out within the framework of the Integrated Goods Quality Management System, which is the subsystem of the Unified System of State Product Quality Management.

The functions of assortment services and the quality of the enterprise include:

- studying and forecasting the needs of customers in the products of their nomenclature;
- Participation in the development of projects of production programs of supplier companies;
- coordination with manufacturers of samples of products, standards, retail prices;
- participation in the certification of products, control of its quality in the process of advancement to the consumer<sup>1</sup>.

Thus, we can conclude that the work on assortment management and quality in dairy processing enterprises and trade enterprises is being scattered, which does not promote significant changes in increasing the degree of satisfaction of the population's demand for high-quality goods.

The final element of the organizational support of the assortment and quality management system is the organization of legal and pretentious work. At the present stage, in the context of increasing the autonomy of enterprises, transferring them to self-financing and economic calculation, expanding economic ties with domestic and foreign partners, the significance of this element increases as it, as well as other subsystems of the organization, participates in ensuring efficiency assortment management systems and quality. The discussed elements of the subsystem of the SUAC organization are provided for another subsystem - planning (forecasting). This subsystem consists of the following elements: - study of external and internal conditions of functioning and problem-setting; - defining goals; - development and implementation of marketing events; - preparation of cost estimates.

Consider them in the specified sequence. Since the external environment is in constant motion, and it is crucial in developing an appropriate marketing strategy for assortment management and quality of goods, the planning process should begin with the study of external conditions, the identification and analysis of their changes. In view of changes in the environment, it is necessary to make adjustments to the internal structure by means of the following actions:

- creation of flexible organizational forms (for example, temporary structural subdivisions intended for implementation of special programs);
- personnel training, their training, retraining and re-placement (redistribution of functional duties);
- introduction of changes to the system of marketing information, in the method of information transmission<sup>2</sup>.

The study of internal and external conditions allows us to identify existing problems in the field of assortment management and quality of goods and to set specific goals that will contribute to their solution.

Goals can be set: - definition of current and future needs of buyers; - studying the motivation of purchases and patterns of behavior of buyers in the market for accounting in the marketing program; - studying the reaction of the market to a new product for adjusting policies in the range of goods; - definition of directions of influence on manufacturers of goods.

A specific list of company goals in the field of product range management and quality depends on the problems posed to it. Since the objectives set out in the planned actions, they are the criteria for evaluating the results achieved. Therefore, they should be clearly articulated; really feasible; indicate directions of action; provide a concentration of material, labor and financial resources. The third element of this subsystem is the development and implementation of marketing actions. Such actions that ensure the implementation of the subsystem of planning the system of product range management and quality of goods in the Integrated system of business management of the enterprise on the basis of marketing, can be: - the formation of current and prospective policy of the trading company in the range of goods and quality; - Participation in the formation of an assortment policy of commodity producers with an orientation on the market and taking into account the life cycle of products; - formation of substantiated applications and orders for the production and supply of goods; - purchase of goods taking into account their consumer properties,

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<sup>1</sup> Mushtai, V., Lyshenko, M., Makarenko, N( 2018): Provision of grain production in conditions of sustainable development. Monograph. LAP LAMBERT Academic Publishing, 2018, 57 sites.

<sup>2</sup> Lyshenko, M.O. (2019): Marketing management of sales of agricultural products as a strategic direction of marketing distribution policy [Electronic resource]. Eastern Europe: Economics, Business and Management, 2019, No. 2, p.260.

prices, durability, competitiveness; - formation of the trade assortment with the provision of the priority of the consumer; - search for additional commodity resources; - integration of trade and production policy through participation in the development of assortment concepts<sup>1</sup>.

The implementation of the listed measures is possible on the basis of the following marketing research on the management of assortment and quality of goods: - definition of current and future needs of the population; - studying the requirements of consumers for assortment and quality of goods; - studying the motivation of purchases and patterns of behavior of buyers in the market; - research of market segmentation and typology of consumers; - study of consumer characteristics and competitiveness of goods of different manufacturers; - studying the life cycle of products; - study of quality standards; - study of commodity stocks; - research of defective products, rejected in the process of wholesale and retail sales; - studying the reaction of the market to a new product; - analysis of information on the quality and range of goods sold, received from the consumer "feedback".

One of the most important measures is the formation of the current and prospective policy of the Enterprise in the field of assortment and product quality. To formulate such a policy means to determine in what volume, which range and quality and on what market should put products.

Another important measure implemented during the implementation of the subsystem of planning and implementation as part of the quality assortment and quality management system is the participation of trading enterprises in the formation of product-oriented policy of commodity producers with market orientation and taking into account the life cycle of products. This participation is provided through: - work in commissions and art and technical councils for attestation of goods by quality categories; - Examination and approval of reference samples; - work on updating the assortment of goods taking into account the requirements of consumers; - work at permanent exhibitions of consumer goods.

These marketing actions should be preceded by such marketing researches as: - studying the product life cycle; - study of quality standards; - research of defective products, rejected in the process of wholesale and retail sales; - studying the reaction of the market to a new product; - analysis of information on the quality and range of goods sold, received from the consumer "feedback"<sup>2</sup>.

Of particular importance is the study of the life cycle of products, because depending on the specific phase of it must be established marketing strategy. An important measure is the formation of applications and orders for the production and supply of goods, which are the main tools of trade influence on industry, the validity of which depends on the degree of effectiveness of this influence. Thus, the principles are simple and accessible, but to steadfastly adhere to them in practice, necessary by the considerable efforts of all, without exception, workers. Employees identify the needs of different contingents of consumers, are actively involved in the creation of goods, giving the industry specific orders, made on the basis of the development of their own designers, designers, technologists. The company proceeds from the fact that product development is not only technical capabilities, resources, technology, fashion and taste, but also a commercial solution that depends on the needs of buyers, from the market conditions and trends of market development, the intensity of demand for similar products of firms- competitors, from the expected infusion of new goods on demand, from the existing range, etc.<sup>3</sup>.

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<sup>1</sup> Sirenko, S.O. Prospective commodity assortment as the basis of an effective marketing policy of a trading enterprise [Electronic resource]. Access mode: <http://intkonf.org/ktn-sirenko-so-didakav-perspektivniy-tovarniy-asortiment-yak-osnova-efektivnoyi-marketingovoyi-politikitorgovelnogo-pidpriemstva>

<sup>2</sup> Lyshenko, M.O. (2015): Justification of effective provision of marketing strategy of the enterprise: assortment-quality-price [Electronic resource]. Eastern Europe: Economics, Business and Management, 2018. No. 5 (16): p. 144-152. Resource access mode: <http://www.easterneurope-ebm.in.ua/16-2018>.

<sup>3</sup> Lyshenko, M.O., Ustik T.V. (2019): Features of marketing risk management at the enterprise as a means of improving marketing innovation policy. Vestnik KNUU them. V.V. Dokuchaev Series "Economic Sciences", №1, 2019, p.3-13.

Moreover, the development of the product - a scientific and technical foresight, the ability to use the latest achievements of science and technology, the ability to predict their impact on the production of the planned introduction of goods and the demand for it.

Control and coordination - the third, final subsystem of the management system assortment and quality. Implementation of control in the assortment and quality management system should begin with an analysis of the compliance of the established programs of marketing actions of the environment. This type of control will allow timely response to changes in the environment and make adjustments to the program of marketing actions.

The next type of control is the assessment of the compliance of the actual marketing activities with the adopted State Program - in the event of inadequate effectiveness of the marketing activities carried out, make appropriate changes to the planned program (to provide additional measures in certain areas, to identify new directions, to suspend unjustified measures).

The third element of this subsystem is the quality control and assortment of sold products, which allows to identify their compliance with quality standards and requirements of consumers.

Control - compliance with the quality and assortment of goods implemented by the standards provides: - Inbound quality control of goods; - control of the availability of sufficient assortment of goods in the retail network; - control of the execution by each supplier of supply contracts in an assortment; - control over withdrawals from the production of non-demanded goods; - control of the progress of the development and supply of new goods procured by the producers at fairs; - control of the state of inventory; - control of the timeliness and effectiveness of legal and pretentious work<sup>1</sup>.

The control of conformity of assortment and quality of goods to the requirements of consumers should be carried out by means of studying the information received from the consumer "feedback". This is one of the most important types of control, since the consumer's opinion is the basis of assortment policy formation.

In order for the type of control to be effective, a clear organizational mechanism for obtaining such information is necessary. Sources of such information can be: panel polls of consumers, poll of visitors to exhibitions, exhibitions-sales, shopping conferences, a special questionnaire, etc. It is necessary to develop annually a specific list of such events, providing for the responsible for their implementation, processing and transmission to the management of the information.

Quality control at Enterprise is an element of the subsystem of control, which is important for the high quality of goods, as it allows to control the quality at all stages of the production cycle, which helps to prevent the release of low quality.

Quality control and assortment of goods should be completed by the development of activities for coordinating activities and adjusting programs. Only in this approach the purpose of the subsystem - the increase in the efficiency of the management system assortment and quality of goods - will be achieved.

Such measures may include:

- development of proposals for the improvement of standards and other scientific and technical documentation;
- development of recommendations for improving the quality of goods, replacing old fashioned goods and models, improving packaging, lowering prices, organizing after sales service;
- development of specifications of new goods or improved goods in accordance with the requirements of consumers<sup>2</sup>.

Thus, the subsystem and coordination completes the implementation of the assortment and product quality management system - (SUAC) within the framework of the COP UCD on the basis of marketing. Implementation of the assortment and quality management system will be important for solving the most acute problem of the current stage of our economy development - the problems

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<sup>1</sup> Makarenko N.O., Lyshenko M.O. (2018): Marketing in small business. Theoretical Foundations: Teaching - method. manual. PE "Burinsky District Printing House", 2018, 104 p.

<sup>2</sup> Lyshenko, M.O. (2015): Justification of effective provision of marketing strategy of the enterprise: assortment-quality-price [Electronic resource]. Eastern Europe: Economics, Business and Management, 2018. No. 5 (16): p. 144-152. Resource access mode: <http://www.easterneurope-ebm.in.ua/16-2018>.

of saturation of the market by high-quality goods in the required quantity and assortment in accordance with the demands of specific consumption

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## 2.4. DEPENDENCE OF ECONOMIC EFFICIENCY OF VEGETABLE ENTERPRISES ACTIVITY ON THE INFLUENCE OF GLOBALIZATION PROCESSES

Theoretical views on the process of economic development, improvement of the efficiency of enterprises and ways of their sustainable development were improved during the 20th century, from the new positions were analyzed and evaluated the key moments of the formation and interaction of enterprises, markets and world national economies. But as to which of these areas of economic thought can be considered a "modern economic theory", which is acceptable for use in the modern world, the scientists still do not have this united idea yet. Some researchers consider contemporary theoretical studies since the beginning of the twentieth century. (B. Seligmen, M.G. Pokidchenko, J. Schumpeter, G.G. Fetisov): others consider contemporary only Keynesianism, which complemented the neoclassical microeconomic analysis of the study of macroeconomic processes (V. Avtonomov, S. Weintraub, P. Yukhimenko).

Despite the time period and the concept of the corresponding economic theory, it can be noted that most scholars recognize the decisive role of the effectiveness of organizational and economic activity of the enterprise for the national economy. Therefore, the formation of the strategy of economic development of the enterprise in the conditions of globalization is undergoing a long process depending on the types of activity, needs, policy of the state, formulated forecasts, doctrines, concepts, scenario conditions, programs of all levels of government. On the basis of this, the mission of the enterprise is formed, with the choice of which strategy should be assessed from the standpoint of socio-economic efficiency<sup>1</sup>. But the economic efficiency of the agrarian enterprises of the vegetable industry can not be considered detached from the efficiency of the wholesale market of vegetable products, since the vast majority of the produced products is sold on it. Agrarian enterprises have huge potential of production of vegetable products, but they are able to realize it only under the condition of a well-functioning sales system under a stable economic situation in the state. However, the efficiency of an agrarian enterprise primarily depends on the level of organization of the wholesale market system within the country and the liberalization of the world market.

It is believed that a mutually beneficial need for deepening Ukraine's integration links stems from historically formed complementary industries based on the use of country-specific climatic resources. According to O. Belorus, the current globalization of the world economy is a complex process of strengthening the interconnection of national economies of the world, which is expressed in the formation of the world market of goods and services, finance, the formation of a global information space, the transformation of knowledge into the main element of social wealth, the exit of business beyond national boundaries through the formation of TNCs, the introduction and domination of international relations and the domestic political life of the peoples of fundamentally new ones in the everyday practice and universal liberal-democratic values, etc.<sup>2</sup>

In the process of globalization, there is a blurring of economic boundaries and a violation of economic conditions in which there was a national economy. According to I. Bochan, the global economy should be considered as a historical socio-economic process, the content of which is the growing interconnection and interdependence of national economies, the merger of national markets into a single world market<sup>3</sup>.

It is believed that globalization contributes to the efficient allocation of resources in an open economy. It also allows the national economy to realize its potential and increase efficiency from the growth of production. In addition, trade can promote technological progress by spreading

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<sup>1</sup> Dukus, A.V., Simchenko, N.O. (2012): Economic development of an enterprise: essence and definition. Actual problems of economy and management: a collection of scientific papers of young scientists, no 6. URL: [http://ela.kpi.ua/bitstream/123456789/12350/1/2012\\_4\\_Dakus.pdf](http://ela.kpi.ua/bitstream/123456789/12350/1/2012_4_Dakus.pdf)

<sup>2</sup> Bilorus, O.G.(2003): The Economic System of Globalism: Monograph. K.: KNEU, 360 p.

<sup>3</sup> Bochan, I.O., Mykhasyuk, I.R. (2007): Global economy. K.: Knowledge, 403 p.

knowledge and fostering competition both within the country and internationally, which leads to optimization of production<sup>1</sup>.

Taking into account that the market of vegetable products is an integral part of the world agrarian market, and then the regulation of conditions, rules of conduct of operations by subjects of market activity is one of the most important requirements. Thus, improvement of the management system of agrarian enterprises in the wholesale market of vegetable products also has a socio-economic and political significance, and is intended to guarantee the food security of Ukraine and create opportunities for attracting investment and innovative development of agrarian enterprises.

The horticulture sector is one of the most capital-intensive and energy-intensive industries and represents a significant share of the sphere of material production of agriculture in Ukraine, and in the current economic situation, it can no longer be considered as a separate part of the world's economic space. But in the opinion of the scientists M. Malik and O. Shpilkyak, when creating the infrastructure of the agrarian market in Ukraine, the formation of an effective economic mechanism remains incomplete. The construction of a market economy mechanism involved the formation of a pricing mechanism, the creation of a favorable credit and tax system and adequate market conditions for the management system<sup>2</sup>.

According to the Institute of Economic Forecasting of the National Academy of Sciences of Ukraine, the natural, economic, technological and scientific potential of our country still can, despite the significant losses of past crisis years, compete with the potential of many developed countries of the world: it has all the branches of the economy of a large, European scale, a modern country; its natural resource potential per capita is 1.5-2 times higher than the US resource potential, 4 times - Germany, 12-15 times - Japan<sup>3</sup>.

But this natural resource potential remains unfulfilled, but the way out of this situation is the export of vegetables to markets in Western Europe. The modern export of vegetables to these countries is about 2 %. So, Ukraine has all the conditions to become the main exporter of fresh vegetables and vegetable products to EU countries. Market capacity and solvency of EU partners are much larger, and their ability to participate in industrial integration, especially when it comes to creating high-tech products, at this time, exceeds the capabilities of countries that were part of the CIS. At the same time, integration will allow agrarian enterprises to specialize in the production of certain types of products, while other countries will be able to develop mutually complementary types of production, which will allow them to achieve higher production results at the expense of the "scale effect" and increase the competitiveness of products at the international level. It is possible to note the special significance of strengthening the integration links between farms, processing enterprises and trade, acquires in the conditions of globalization of the economy, in the competition of local and foreign producers.

Objective preconditions for international cooperation in the agrarian sphere have been realized in Western Europe due to the historical features of the region. The greatest discrepancy between the high level of economic development of the main countries and the narrow boundaries of their domestic markets manifested itself. The emergence of national customs barriers increasingly hindered the international division of labor, the transnationalization of production and capital. The states of Western Europe were looking for a way out of these contradictions towards the consolidation of their internal markets, the conduct of a common economic policy. At the same time, in Europe there were some points that allowed resolving this contradiction: the high level of interregional trade, the similarity of income levels and the high degree of industrialization, favorable for intra-industry specialization and co-operation.

Integration of Ukraine into the EU conceals the threat to the development of domestic producers of goods in this section. This is, first of all, an increase in competing import on the

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<sup>1</sup> Bernard, A.B., Jensen, J.B. (2004): Why Some Firms Export. Review of Economics and Statistics, 86(2) pp. 561-569.

<sup>2</sup> Malik, M.Yu., Shpykulyak, O.G. (2011): Institutes and institutions in the development of the agrarian sector of the economy. Economy of agroindustrial complex, № 7, pp. 169-177.

<sup>3</sup> Economic Encyclopedia: in 3 t. / [rep. edit S.V. Mocharyn] (2003): K.: Academy Publishing Center. T.2., 848 p.

domestic food market of Ukraine for the probable extension of the restriction of domestic exports to the EU countries due to its non-compliance with European standards<sup>1</sup>.

The attitude towards the development of agrarian policy has two main reasons. First, food security is always the key task of any state. This goal is only achievable in the case of self-sufficiency in agrarian products and the creation of stocks that guarantee the provision of food, including in the case of poor crops. Secondly, agriculture is a special sector of the economy, because it is very dependent on environmental conditions that people can not always influence.

Each of the EU states, having developed its national agrarian and food policies, agreed to adopt a common agricultural policy (EAP): which would meet the requirements of all EU member states, in combination with support for markets for food security, protection against cheap imports, primarily from the United States, to ensure its own stable production and support for food exports.

At the time of the formation of the European Economic Community, about one third of the population of Western Europe lived at the expense of agriculture. The agrarian policy of the EEC was initially aimed at supporting family farms and preventing the uncontrolled migration of rural population to cities. In addition, one of the central ideas of a unified agricultural policy was to achieve a positive effect from the association of agricultural production and food markets in Western Europe<sup>2</sup>. Such a coherent agrarian policy of Europe was based on such fundamental principles.

The first principle was the formation of a single market. In the framework of the creation of a common market for agrarian products, there were rules that were replaced by a single European system of supply and demand regulation. This helped to prevent price deformations and provide a stable income for the peasants. For 98% of agricultural products fixed purchase prices were fixed.

The second principle was to give preference to products produced by commodity producers of the European Union, instead of spreading agrarian imports. This was an additional guarantee of the economic stability of European farms. In practice, the implementation of this principle has become the introduction of customs duties on imports from those countries where agricultural products could be produced at lower costs than in the countries of the general market, as well as in export subsidies. The facts that purchasing prices in the EU countries were higher than the average in the world, European farmers' products are becoming too expensive on the world market. Financial solidarity has become the third principle of a unified agrarian policy. According to this principle, all costs of financial support for agrarian policy should have been covered equally by all the members of the common market<sup>3</sup>.

Despite the fact that each country is a developed state not only with respect to the agrarian sector of the economy, the definition of postulates and principles of general policy has always been associated with certain difficulties and problems. The fact is that agrarian policy in the European Union since the very beginning of the integration of the states had a special position; it belongs to the priority foundations of the European Community. So, we see that, due to many internal and external causes, the EU countries are at different stages of readiness for cooperation. Ukraine should strive to reach the level of acknowledged leaders of the globalization process, which demonstrate in recent years high indicators of socio-economic development.

Domestic agrarian enterprises are experiencing rather large difficulties in the process of promoting manufactured products to the buyer. At the same time, many foreign agrarian enterprises are characterized by the strengthening of integration links between farms, processing enterprises and trade, which allows producers not only to receive high results, but also to reduce the cost of production, and optimal placement - to ensure the economy of transport and energy costs, minimize losses and maintain the quality of products. By R. Bilyk's definition, regional economic systems are

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<sup>1</sup> Shubavska, O.V. (2014): Ukraine's Integration Perspectives: Benefits and Risks for the Agrarian Sector. Ukraine economy, 1 (626): pp. 63-72.

<sup>2</sup> Prokudina, N.V. (2008): Legal regulation of general agricultural policy in the European Union: diss. Cand. jur Sciences: 12.00.10. M., 204 p.

<sup>3</sup> Semenova, N.N., Knyazkina, E.O. (2012): Financing of agricultural production in the context of food security. Finance and Credit, №4 (484): pp. 62-68.

in constant interaction in the global economic and institutional environment, which causes "... the need to be able to realize the goals of development, as well as to withstand a number of threats to their own existence"<sup>1</sup>.

In modern economic science is considered a large number of species, forms of integrated formations, classified by various features. Most authors consider only individual elements of the classification: the degree of property control of the integrated structure, the composition of the participants or the purpose of integration, management methods, etc. The most complete classification is developed on the basis of the following criteria: the presence or absence of economic independence, the degree of centralization of economic functions of enterprises in the association, voluntary establishment of the association. This classification takes into account the current vision of forming the principles of creating integrated corporate structures.

Integration simultaneously increases the turnover of co-operating countries and reduces mutual trade with third-world countries. Under economic integration, we see the process of economic interaction of countries, which leads to the convergence of state economic mechanisms and which are in the form of intergovernmental agreements and is regulated by the created intergovernmental bodies. Thus, under these conditions, the economic integration of agrarian markets becomes an integral part of the overall economic and political cooperation of the EU countries, which includes such important aspects as the guarantee of collective security of states and their interaction on the international scene, cooperation in the energy, transport, investment, scientific, technical, financial, legislative, cultural and other fields.

Integration of the domestic wholesale markets of developed neighboring countries has a special significance in the modern world. It allows to overcome the negative effects of economic globalization, preserve the natural resources of the state, protect the vulnerable structural elements of the economy, protect the domestic market from the most effective competitors, especially from stronger competitors, to overcome the influence of the interests of the most economically developed countries. In this sense, the main goal of integration is the formation of a common economic space provided that the agricultural enterprises of different countries participate equally in the process of unification. So the concept of "integration strategy" includes the conditions and methods of combining agrarian enterprises and domestic wholesale markets of individual countries into a single economic system, and not only the union of economic interests or contractual relations.

Agro-industrial integration leads to uniting efforts and means into a single process of production of highly specialized and fully developed branches of production, processing, storage and marketing of vegetable products. Integration in the general sense means the process of combining the efforts of various subsystems to achieve the goals of the organization or the introduction of any individual parts into a single whole defined system. Economic integration is characterized by the formation of deep and stable cooperative ties between enterprises and industries.

The main objective of integrating vegetable enterprises into the wholesale market of vegetable products is to attempt to unite the interests of all market participants (agricultural producers, processors, transport companies, trading companies, intermediaries, retail trade, and buyers) mainly due to price and price policy. All markets are thus interconnected and affect each other through prices and price parameters. Each market type has its own mechanism of operation or price mechanism.

The market mechanism functions due to price competition, which, in particular, in vegetable growing, is manifested in the following types: the reduction of prices during the implementation of homogeneous products, the growth of prices during the sales of one industry, the ratio of demand levels and supply of vegetable products. At the stage of product sales there is a competitive struggle at the level of sales prices, volumes and quality of commodity products. Price marketing and its policy are designed to adapt to the ever-changing demand and supply in the markets. Specifics of

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<sup>1</sup> Bilik, RR, Varnalij, Z.S. (2017): Institutional Foundations and Organizational Mechanisms for Regional Development Policy: The Problems of European Reform. Socio-economic problems of the modern period of Ukraine. № 3 (107): pp.3-11.

the market mechanism in the agrarian sector of the economy are manifested through the existence of problems of imperfection of pricing mechanisms in the agricultural market, the impossibility of creating economic conditions for the corresponding economic growth of the industry, the problems of reproduction of the social and labor potential of rural territories, ensuring sustainable development of rural areas by maintaining an appropriate level of employment in agricultural production, prevention of food insecurity threats and forming preconditions for job creation in agriculture and manufacturing.

The agrarian sector of the economy, and not only our state, is characterized by problems in the functioning of the market mechanism, the uncertainty of the functions of its self-regulation and the lack of regulatory levers of influence on the establishment of a balance in economic relations with business entities in other sectors of the economy. This determines the need for the regulatory influence of state structures on economic processes in the agrarian sector. As an example of the EU countries, we see that the vast majority of economically developed countries implement a policy of so-called agrarian protectionism, which is reflected in maintaining the necessary profitability of agribusinesses.

The importance of justifying the ways to increase the competitive potential of agrarian enterprises is determined by its priority for agrarian enterprises. By definition, A. Shepitsen: "Competitiveness of an enterprise should be interpreted as an opportunity to ensure the release and sale of products which, at their price and non-price factors, are more attractive than the products of competitors, using competitive advantages and potential opportunities to ensure the competitiveness of products in the future in the event of a change market situation and consumer demand"<sup>1</sup>.

This implies assessing the region's need for vegetable products in the long run, as well as identifying the potential of the region and its producers in saturation of the market in the event of an increase in market demand. Solving the problem requires the availability of resources in the region to meet the needs of the region in the field of vegetable products in the future and in the current competitive situation to eliminate the competitive disadvantages that impede the marketing of products and the identification of competitive advantages that should be effectively used to realize the potential available in the region and its producers.

Taking into account the factors that determine the level of activity of agrarian enterprises provides an opportunity to really assess the existing competitive potential of the enterprise and develop a strategy for the activities of agrarian enterprises and identify ways to integrate them into the wholesale market of vegetable products. The connection of markets of factors of production with the market of vegetable products in the system of social production is direct and rigid. The disadvantages of any of these markets affect the performance of the entire system, and then on other markets. After all, in a market economy, the results of any production, including agricultural, can become real only if the product is brought to the consumer. As it was mentioned earlier, the consumer for the agricultural commodity producer is the processing industry, which, in turn, brings the final product to the population through the wholesale and retail trade system. In this case, the manufacturer separates from the end user several levels of different groups of intermediaries, who are much closer to the end consumer and who directly determine the price and therefore have a profit. Therefore, their position forces society to use a regulatory mechanism, that is, it is an objective requirement of state regulation in the system of agricultural production; otherwise, the economic results of this production will not be objectively meet the costs and needs, and hence the whole system of interconnection of the results of agricultural production with its factors will be violated.

Summarizing the foregoing it can be determined that the factors determining the integration processes in the world are the deepening of the international division of labor, the development of productive forces under the influence of the world-wide nature of the NTP, the rapid development

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<sup>1</sup> Shepitsen, A.O. (2003): Methodology of complex evaluation of the competitive environment in the markets of agrarian products. Scientific notes of the Ternopil State Pedagogical University, № 14, pp.135-137.

of communication capabilities, the objective need for a common solution of global problems of human existence, etc. .

The effectiveness of agribusiness in Ukraine depends to a large extent on the functioning of the entire set of markets that are active at this time regardless of location. The existing infrastructure of the domestic wholesale market of vegetable products is not yet perfect, since most of its elements are at the initial stage of development and can not fully ensure the efficient exchange of goods and the uninterrupted flow of goods to end-users. For domestic agroindustrial complex, in addition, it is necessary to develop a mechanism for further integration of agro-industrial enterprises into an international competitive environment.

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## 2.5. DEVELOPMENT OF COMPETITIVE ORGANIC PRODUCTION IN THE AGRO BUSINESS

Food security and food security for the population are among the major problems, both social and economic development, at the national and global levels. Effective functioning of agricultural enterprises based on the rational use of natural resources is the basis for solving this problem. In this regard, the development of organic food production has become increasingly important lately. Its principles are aimed at preserving and restoring the environment, increasing the quality of food, improving health and living conditions.

In Ukraine, the concept of a state program for the development of organic production has been developed<sup>1</sup>. The purpose of the Program is to ensure the sustainable development of the agrarian complex of Ukraine through the development and support of organic production as one of the priority areas for the implementation of the state agricultural policy aimed at preserving and improving soil fertility; ensuring the competitiveness of Ukrainian agricultural products in the context of Ukraine's integration into the world economic space; promoting the health of the nation by providing the population with quality and safe certified organic food; environmental protection; creating the right conditions for rural development. Organic agriculture has great potential to improve the economic, social and environmental situation in the country. It contributes to integrated rural development and improved public health.

Ukraine has all the prerequisites for the development of organic production - favorable natural and climatic conditions, fertile soils, low levels of mineral fertilizers and plant protection products, a significant market for potential consumers, and a positive experience of domestic enterprises. Organic movement development in Ukraine is being carried out by the Organic Movement Federation of Ukraine, the Association "Pure Flora", the International Public Association of participants of bioproduction "BIOLan Ukraine", the Organic Farming Club and others. However, organic production in Ukraine is developing at a rather slow pace.

Organic production helps to create an ecological balance through the development of agricultural systems and support for biological agrarian diversity. In the last decade, we can observe a trend of saturation of the domestic market with Ukrainian organic products through the processing of our own organic raw materials. For example, you can find Ukrainian dairy and meat products, rice, buckwheat, flour, honey, juices, sunflower oil, medicinal herbs and teas<sup>2</sup>.

The key to effective organic farming and organic production is the identification of the suitability of land for the production of organic agricultural products. Their assessment is carried out by the certification body according to the conclusion of the relevant scientific institutions, research institutes, quality and safety laboratories in accordance with the law "On production and circulation of organic agricultural products and raw materials"<sup>3</sup>.

Typical differences in the production of organic products is the complete refusal during such production from the use of synthetic mineral fertilizers, preservatives, artificial colors, growth promoters, chemical remedies, hormones, antibiotics, flavors, stabilizers, flavor enhancers and more. It is also prohibited to use GMOs, derived GMOs and products made from GMOs, food, feed, process additives, soil improvers, seeds, vegetative origin of planting material, micro-organisms and animals and the like. The use of ionizing radiation for the treatment of organic feed or feed is prohibited.

Hydroponic production in organic production is also prohibited. Only in some cases, with the consent of the central executive authority, is it possible to use traditional products in the production of organic products (products made using conventional production techniques where any chemical

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<sup>1</sup> Koncepciya derzhavnoyi Programy` rozvy`tku organichnogo vy`robny`cztva v Ukrayini [Elektronny`j resurs]. – Rezhy`m dostupu : [www.organic.com.ua](http://www.organic.com.ua)

<sup>2</sup> Willer, H., Lernoud, J. (2017): The World of Organic Agriculture. Statistics and Emerging Trends. Auflage Leitfaden. Handbuch. FiBL, IFOAM, 340 p.

<sup>3</sup> Zakon Ukrayiny` «Pro vy`robny`cztvo ta obig organichnoyi sil`s`kogospodars`koyi produkciyi» – vid 3 veresnya 2013 roku. – # 425. – Verhovna Rada Ukrayiny`.

remedies, synthetic mineral fertilizers, preservatives, artificial dyes, growth promoters, hormones, antibiotics, flavors, stabilizers, flavor enhancers, etc.) and plant protection products, fertilizers and soil improvers, inorganic feed materials salivary, animal and mineral origin, feed or process additives, products for the purification and disinfection of ponds, cages, structures and installations for the production of livestock and plant products, including facilities for the storage of such products. In such cases, the certificate is issued only on condition that at least 90% of the ingredients of the processed agricultural products are organic.

The advantages of organic production are the preservation of the natural environment in the production process, the improvement of the soil structure, which contributes to its fertility. Organic products contain more nutrients, minerals and vitamins by minimizing chemicals. In addition, organic production has a number of environmental and economic benefits, as providing the population with quality and safe organic food contributes to improving the health of the nation and enhancing the food security of the state. Organic farming methods help to conserve resources and reduce the energy intensity of agricultural production, thus increasing the competitiveness of producers in international and domestic markets. Significant demand for organic products enables businesses to sell their products at a higher price and increase their own revenues.

Organic products are characterized by naturalness and food security. However, its cultivation has certain features, most of which are negative for the country today, but at the same time these features give advantages to producers. Despite the progress made in the development of organic production in Ukraine, the experts point to a number of factors that hinder the realization of Ukraine's large-scale potential in this segment of the agricultural sector. This is the imperfection of the current regulatory framework for organic production; lack of an effective system of state supervision (control) on the part of the state of production and quality of products, which causes unfair competition among manufacturers, retailers and leads to fraud (pseudo-organic products) in the domestic and international markets; lack of system of effective protection of consumer rights and effective system of sanctions for counterfeit products, etc.<sup>1</sup>. Nowadays in Ukraine it is perhaps the most important brake factor for the development of organic production and the cultivation of environmentally friendly agricultural products.

The development of competitive organic production in our region is possible on the basis of the creation of agritourism cluster, which aims to combine organic production and tourism. Competitiveness is an integrated property of the economic system, which determines the realization of the goal and achievement of the results of functioning necessary and sufficient for the active positioning of the system in a competitive market space<sup>2</sup>.

Clusters in the economic literature are defined as an industrial complex formed on the basis of the territorial concentration of networks of specialized suppliers, major producers and consumers connected by the technological chain. Clusters also include, in addition to manufacturers, a large number of different types of business entities important in competition - suppliers of new technologies, value added services, special tools, infrastructure, resources and more. Many clusters also include government agencies, universities, standardization centers, various associations that provide specialized training, education, information, research, and technical support.

The following prerequisites for creating clusters are outlined in the scientific literature:

- proximity to markets;
- Provision of specialized workforce;
- availability of suppliers, production facilities and other resources;
- availability of specific local resources;

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<sup>1</sup> Gavaza, Ye.V. (2012): Vdoskonalennya funkcionuvannya vitchy`znyanogo ry`nku organichnoyi produkciyi v konteksti svitovy`x tendencij [Improving the functioning of the domestic organic market in the context of global trends]. *Nauka i ekonomika - Science and economics*, no 4(28): T. 1, pp. 234-235.

<sup>2</sup> Romanyuk, I.A. (2015): Systemno-strukturni definitsiyi katehoriy u haluzi silskoho zelenoho turizmu: uzahalnennya ta vykorystannya [System-structural definitions of categories in rural green tourism: generalization and use]. *Naukovyy visnyk KHDU. Seriya «Ekonomichni nauky» - KSU Scientific Bulletin. Economic Sciences Series*, no 15, part 3, pp. 29–31.



- scale effect in production;
- availability of infrastructure;
- low transaction costs;
- high quality access to information.

While all of these indicators are essential for cluster enterprises, practically important for each of them is an indicator such as specialized workforce. If due to the use of modern information technologies it is possible to compensate to some extent the factor of proximity to suppliers, opportunities of research work or access to equipment of manufacturers, then there is no alternative for specialized workforce. Therefore, workforce matching combined with specialized training provides the most significant regional competitive advantage for clusters.

The rapid development of cluster initiatives in various areas of activity began in the 1980s, and today this mechanism is recognized as one of the most effective - it has been successfully tested as a tool for improving the competitiveness of industries and territories. Today, the cluster approach to the development of regional tourism is widely used around the world, as its effectiveness is no longer in doubt. So, cultural, nature or architectural monuments become the nucleus of the cluster, and placements and food, infrastructure complement and serve them, creating additional advertising for themselves and the attractions.

Specialists of the Hospitality Industry Association of Ukraine are convinced that the development of tourism cluster initiatives will help to increase the inbound and inbound tourist flow, and, consequently, sustainable and comprehensive economic growth of Ukraine.

Successful development of clusters requires the availability of adequate resources (natural, labor, capital and other resources): a high level of development of supporting industries (venture capital funds, companies conducting marketing research, research organizations, etc.); solvent demand (including consumer segments that need different quality goods, differentiated brands and place high demands on quality standards); as well as competition and the desire for constructive collaboration (effective clusters are based on moderate competitive pressure and mutual support from business partners).

It is necessary to dwell separately on the need to create tourist clusters in rural areas. Unfortunately, for the Ukrainian village, which is currently in a state of neglect, the creation of agro-tourism, agro-recreational and agro-ecological clusters can be a real salvation. That is why the Ministry of Agrarian Policy and Food of Ukraine, together with the Hospitality Industry Association, is carrying out systematic work to support cluster initiatives - assistance in the creation of agritourism clusters.

The idea of agritourism cluster is to involve farmers, entrepreneurs and the few who provide green tourism services in Ukraine, as well as to use the historical, cultural raisins that every region of Ukraine is rich in. Under these conditions, all three parties can make money, and tourists will have access to the full range of services provided, which will only enhance people's desire to travel to their country.

Rural development is an important task set out in the State Strategy for Regional Development of Ukraine. Taking into account the trends and needs of the Ukrainian village, it is extremely important to develop agro-tourism clusters that unite into an efficient system of tourist sites, villagers, farmers, entrepreneurs and agricultural universities of Ukraine.

With the purpose of effective social interaction and development of tourist destinations across Ukraine in 2018, we have launched the project "Tourist Clusters 300+", the purpose of which is to create over 300 clusters and all the necessary infrastructure for their effective activity in 3 years. According to the authors of the project, ten clusters over the five years will give the state an additional \$ 500 million in the budget. Ten clusters are 800 jobs in tourism and related fields. When creating 300 clusters, the order of numbers increases accordingly.

To date, around 20 organizations in different regions have already been formed in Ukraine. These included Kyiv, Vyshgorod, Cherkasy, Dykanka, Poltava, Kharkiv, Zaporizhia, Kaniv, Uman, Khust, Uzhgorod and others.

The Investment Passport of the studied region states that, taking into account the peculiarities of the natural, resource and production potential of the region, the specifics of the regional labor market, the priority components of the economic complex that require priority attraction of investment resources are:

1. Agriculture - (high agro-climatic potential, availability of quality farmland, favorable climatic conditions, absence of harmful industrial production in the region, which will contribute to the development of environmentally friendly agriculture);

2. Tourism - creation of permanent tourist routes will allow the inhabitants of the region to better know and explore attractive places, and to guests - to get acquainted with the beauty of the region, to learn the traditions, culture, architecture and heritage.

Also in the Investment passport of the region it is emphasized that “tourism infrastructure needs detailed work on improvement and development. Today we consider the development of rural green tourism, gastronomic tourism, industrial tourism, rhodium tourism to be promising for the region. ”

The Culture and Tourism Development Program of the region, which is being researched for 2019 - 2023, states that “tourism infrastructure is oriented towards acquaintance with the nature and history of the native land, ancient and modern traditions, reflects the current trends of the development of the area. Rural tourism is one of the priority directions for the development of the tourist industry of the area today. ”

So, based on the existing resource potential and the actual needs of the region, we believe that the creation of an agritourism cluster will allow to combine the two priority areas of the region - organic production and tourism.

Note that this region has a number of problems. It does not take full advantage of the natural and economic opportunities available for the production and sale of agricultural produce, as well as for recreation and recreation. Small-scale farmers and households producing small quantities of agricultural produce for sale in local markets do not have the capacity to expand their own production. Due to the lack of jobs, rural youth are forced to go looking for work in cities or abroad.

It should be noted that the popularity of domestic tourism is steadily increasing every year, and the duration of holidays has decreased significantly: in the last 50 years, from 30-45 days to 2-7 days. The residents of big cities need a short rest within a 2-hour drive from their homes. At the same time, interest in local produce remains relevant: people are increasingly inclined to consume natural, environmentally friendly products.

Creation of agritourism cluster is proposed in the territory of four settlements of the region. In our opinion, this will bring the following positive developments: the development of rural areas through the activation of small-scale farmers and households, small businesses, job creation, attraction of tourist flow, preservation and restoration of historical and cultural heritage.

The list of benefits that residents of the project area of the agro-tourism cluster and residents of the region as a whole will receive:

1. Social sphere:

- creation of new jobs;
- preservation and restoration of historical and cultural heritage;
- development of recreation and recreation area;
- creation of a network of service enterprises.

2. Economic sphere:

- development of small business and farming in the countryside;
- attraction of tourist flow;
- additional income from servicing tourists and holidaymakers;
- increase in budget revenues;
- attraction of investments in the development of the region;
- increasing the incomes of rural residents;
- increasing the employment rate of the rural region;

- increasing the volume of production and sale of organic agricultural products in the region and products of its processing;
- increase of competitiveness of organic agricultural products of the region and products of its processing;
- increasing the efficiency of production of organic agricultural products of the region and products of its processing;
- expansion of distribution channels;
- recognition of cluster products on the market (logo, slogan, brandbook).

For the following benefits, we offer:

1. Conducting information meetings and training for farmers, entrepreneurs, small agricultural producers and residents of the project area of the agro-tourism cluster.
2. Creating a tourist route.
3. Creation of objects of agritourism infrastructure (rest houses, picnic areas, playground, cafe, rent of sports and fishing equipment, etc.)<sup>1</sup>.
4. Assistance in the procurement and installation of the necessary processing equipment for small farmers and households. This will enable them to sell their organic produce on site, and their production facilities can become the objects of tourist display.

It should be noted that current conditions of management require a way of managing PR, which is based on widespread use of information resources. According to the modern concept of the economic-managerial process of public relations, as an information phenomenon, it is an integral part of this process, which determines the importance of using PR-marketing in the activities of economic entities on the one hand as a factor influencing the economic development of the enterprise, and with the other - as a tool for improving the competitiveness of domestic enterprises in general<sup>2</sup>.

So, based on current realities, we propose to use the following elements of PR-marketing in order to increase the competitiveness of organic production of agritourism cluster:

1. Development of corporate style of products of the cluster: logo, slogan, and subsequently - brandbook.
2. Creation of a farm shop with branded organic products.
3. Holding a press tour.
4. Creating your own website, placing billboards on the routes of the region, advertising on social networks.
5. Participation in the exhibition of agricultural producers using their own corporate identity.
6. Creating an open space for the revival of Ukrainian historical, cultural and economic traditions (holding folk festivals, ceremonial holidays, creating a summer camp for young people with workshops on folk crafts, as well as conducting educational activities for schoolchildren and students on sustainable rural development<sup>3</sup>).

An estimated number of recipients of the benefits are 2,773 people - residents of the future agro-tourism cluster and residents of the region as a whole. The full implementation of this project is 3 years.

Notwithstanding the obvious advantages of creating an agritourism cluster in the region, it should be noted that there are also significant risks associated with the complexities and obstacles of interaction of the cluster participants (starting from the process of their integration and ending with the results of the cluster activities, which can be achieved more time than expected).

<sup>1</sup> Romanyuk, I.A., Mandych, O.V., Nikitina, O.M. (2016): Osoblyvosti vprovadzhennya marketynhovykh komunikatsiy v turystychni posluhy [Features of introduction of marketing communications in tourist services]. Visnyk KhNTUSG : ekonomichni nauky - Bulletin of KHNTUSG Economic science, No 174, pp.212-218.

<sup>2</sup> Romanyuk, I.A., Mandych, O.V., Nikitina, O.M. (2016): Osoblyvosti vprovadzhennya marketynhovykh komunikatsiy v turystychni posluhy [Features of introduction of marketing communications in tourist services]. Visnyk KhNTUSG : ekonomichni nauky - Bulletin of KHNTUSG Economic science, No 174, pp.212-218.

<sup>3</sup> Romanyuk, I.A. (2016): Osoblyvosti vidtvoruvannia protsesu v ahroaromnomu sektori [Features of the reproduction process in the agricultural sector]. Ahrosvit - Agro-world, № 11. - pp. 12-15.

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7. Romanyuk, I.A. (2016): Osoblyvosti vidtvoryuvalnoho protsesu v ahrarnomu sektori [Features of the reproduction process in the agricultural sector]. Ahrosvit - Agro-world, № 11, pp. 12-15.
8. Willer, H., Lernoud, J. (2017): The World of Organic Agriculture. Statistics and Emerging Trends. Auflage Leitfaden. Handbuch. FiBL, IFOAM, 340 p.
9. Zakon Ukrayiny` «Pro vy`robny`cztvo ta obig organichnoyi sil`s`kogospodars`koyi produkciyi» – vid 3 veresnya 2013 roku. – # 425. – Verhovna Rada Ukrayiny`.

## 2.6. FINANCIAL CREDIT SUPPORT OF THE UKRAINIAN AGRARIAN MARKET

The efficient functioning of any commodity or commodity market cannot be imagined without a well-developed and well-formed system of financial and credit servicing, as one of the most important components of the marketing infrastructure of the market. In general, the problems of financial support for the agricultural market are fairly homogeneous. However, by adapting them to a specific commodity market, we can note some differences that are caused by the diversity of production, distribution and consumption processes.

The agricultural market has its own characteristics, which primarily include the seasonality of production, where there is a seasonal gap between investment and cash flow, continuity of reproduction processes, the need for working capital and more. All this transforms agriculture into an area where credit resources play a crucial role in business, and credit - the main source of replenishment of financial resources of the enterprise.

However, despite the urgent need to create an effective financial and credit system, adequate to the current market conditions of financial and credit support of the main operators of the agrarian market - agricultural producers, which, in our opinion, this applies in the first place, is not yet properly formed, and the problems of financial support of agrarians, which still remain unsolved, necessitated the search for ways to solve them<sup>1</sup>.

The purpose of the article is to carry out a detailed analysis of the system of financial and credit support of the agrarian market and to offer recommendations for its further development.

Many scientific works are devoted to problems of financial and credit servicing of agricultural enterprises. Significant authors on this issue can be attributed to P. Sabluk, V. Alekseychuk, M. Demianenko, M. Malik et al. However, the current situation indicates that the financial and credit support of direct agricultural producers is rather low, so in our opinion this issue needs further analysis and improvement.

The financial-credit system consists of financial-credit infrastructure, mechanism of credit relations with commercial banks and mechanism of non-bank lending. Financial and credit infrastructure is a complex of united by the general purpose of financial and credit organizations, which includes commercial and cooperative banks, credit unions, agro-financial groups, insurance companies, etc., which directly serve the commercial activities of agricultural producers, intermediaries and retailers .

The predominant features of financial and credit servicing of the Ukrainian agrarian market are the financial support of producers not only for the implementation of simple or extended reproduction of production, but also for the manufacturer to be able to perform some of the functions of intermediaries, that is, to adjust the processes of storage of manufactured products, their transportation for sale directly to the end consumer - processing enterprise.

The imperfection of the existing financial and credit support is manifested in the fact that commercial banks, insurance and investment companies do not fully meet the needs of the agricultural business. For example, commercial banks that lend to agricultural producers in recent years have significantly increased the flow of credit in the grain sector, which was partly due to the mechanism of offsetting the loan rate, which amounted to 50% of the National Bank of Ukraine discount rate on the day of the loan agreement, but not less than 17 , 5% pa. However, despite this, commercial banks still cannot sufficiently lend to commodity producers due to the continuous intervention of central authorities in the commercial activities of agricultural enterprises, the absence of a defined legal procedure for compensation for losses, the absence of a mechanism for lending, taking into account industry specificities and controls. purposeful use and repayment of loans, etc<sup>2</sup>.

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<sup>1</sup> Artashov, V.; Uvarova, G. (1996): *Ekonomichnyy radnyk menedzhera* [Economic advisor to the manager]. Finansy, uchet i audit - Finance, accounting and auditing, 318 p.

<sup>2</sup> Malik, M. (2004): *Finansovo-kredytnyy mekhanizm u rozvytku aharnoho pidpryemnytstva* [Financial and credit mechanism in the development of agrarian entrepreneurship]. *Finansy Ukrainy - Finance of Ukraine*, no 5, pp. 47-53.

As a result, enterprises can not only expand but also lack the capacity to upgrade outdated technical resources and implement the latest production technologies.

Agro-industrial financial groups, financial funds, innovation funds, leasing organizations, insurance and factoring companies, etc. should also be considered as integral elements of the financial and credit infrastructure of the agricultural market. However, only some of these elements have become operational in the agrarian sector of Ukraine.

An attractive feature of financial support for agro-industrial financial groups is that it combines all forms of self-financing, lending, budget financing, as well as equity as the most mobile and rational form of concentration and redistribution of financial resources. In addition, temporary free financial resources of participants may be transferred within the agro-financial group. In our opinion, further development of agro-industrial financial groups will contribute to the revival of agricultural production on a qualitatively new basis.

Another important component of financial and credit infrastructure is insurance, which should provide reliable protection of property interests of agricultural producers and increase their solvency level before lending institutions. But here, too, there are obstacles. First, the state budget does not provide funds for the compulsory insurance program, so in fact, such compulsory insurance is not provided. Secondly, existing insurance rates are considered by insurance companies to be too low, but at the same time they are too high for agricultural producers who do not earn sufficient profits to have a negative impact on their financial position.

World practice proves that the best way to meet the above needs of commodity producers can be to diversify forms of financial intermediation, which will be provided by a multi-channel credit scheme and which will provide commodities with financial resources from several interconnected sources<sup>1</sup>.

The realization of such a system is the creation of a system of specialized credit cooperatives, ie mutual lending on a cooperative basis. The advantages of this organization are the maximum approach to customers and relatively low credit service costs. The development of such lending implies the emergence of credit unions and cooperative banks, where the owners of those who use their services should be the owners, and financial policies will be based on the fundamental principles of cooperation and democratization of governance. Such organizations should be established on the principle of territoriality and be divided into three levels:

- local cooperative banks and credit unions, which are a link with agricultural producers and which form volumes of orders for credit resources from producers, determine the purposes of obtaining a loan and its efficiency, terms of granting and repayment of loans, etc. ;
- regional cooperative banks and credit unions, the main functions of which should include first-level support with ancillary services, ie development of new financial products, support for liquidity, provision of foreign exchange, investment and settlement operations, etc. ;
- central cooperative banks and credit unions, whose main function is the interconnection of the two lower levels.

However, at this stage, the creation of the proposed credit cooperative is hampered by some shortcomings in the legislation, which may include the size of the minimum statutory fund, the number of members of a cooperative bank or credit union, an entrepreneurial mechanism of distribution of funds, participants of such a cooperative, etc.<sup>2</sup>

Despite the rapid development of domestic lending, much of the problematic issues related to the financial support of the agricultural market operators, in particular, the grain market, remain unresolved. First of all, it concerns state support and improvement of the legal framework governing the legal and financial-credit relations in the agricultural sector and the further

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<sup>1</sup> Babko, N.M. (2012): Spetsialni rezultaty diyalnosti silskohospodarskykh pidpryemstv u vsikh rynkovykh ekonomikakh [Special results of activities of agricultural enterprises in all market economies]. Zbirnyk naukovykh prats Tavriyckoho derzhavnoho ahrotekhnolohichnoho univertsytetu - The assistant of the naukovich praxis of the Tavritskogo conducting the scientific conference Univ, No 2 (18): 14-20.

<sup>2</sup> European Commission Costing Methods for Decision Making: Current Management Accounting Practices (1997): 60 p.

development of credit institutions<sup>1</sup>.

Also, one of the main reasons that impedes the development of crediting can be considered high cost of credit, excessive rates of obligatory reserve of funds for banks, lack of a reliable borrower, lack of guarantees of loan repayment, high level of expenses associated with providing financial and credit services, absence credit default insurance practices and more.

Summarizing the above, we can conclude that the system of financial and credit support to agricultural market operators is one of the most important mechanisms that sufficiently strongly influences the functioning of the Ukrainian agricultural market. However, to date, the presented financial and credit infrastructure has a number of disadvantages and problems, the further solution of which will contribute to the effective functioning of the main operators of the agrarian market - agricultural producers.

The main purpose of commercial activity of the enterprise is profit, and the main purpose of managing the formation of profit is to identify the main factors that determine its size and by influencing it to search for reserves to maximize its mass.

Profit management is connected with the basic, operational activity, therefore its analysis and control should be constantly engaged and it is necessary to start with the organization of information support of managers with interdependent analytical data about the processes of formation of profit. To date, businesses generally use separate metrics (sales revenue, sales, product sales prices, and profit or loss): but they do not even suspect the depth of the relationship between these metrics and the ability to use them for projections and making management decisions.

The problems of managing the financial resources of an agricultural enterprise are quite complex and multifaceted, since the enterprise needs to be provided with solvency and profitability. Therefore, the formation of financial resources of the enterprise must perform different tasks, taking into account the contradictions between solvency and profitability: on the one hand, to increase the amount of financial resources to ensure the constant solvency of the enterprise, and on the other - to ensure the efficiency of production and its competitiveness through the rational use of financial resources of the enterprise maximum profit. Thus, the financial condition of the enterprise, its profitability and position in the market environment depends on the efficiency of financial resources management.

Most scientists identify the financial resources of an enterprise with their sources of formation, including their profit. In our opinion, the analysis of the financial resources of the enterprise, ie, the analysis of factors and sources of formation of profits of the enterprise will create conditions for the prompt management of financial resources of enterprises and management of the formation of profits of agricultural enterprises. In the current conditions of functioning of the domestic agrarian market and taking into account the current state of production and commercial activity of domestic agricultural producers, the main direction of normalization of the functioning of domestic production is the way to use the existing sectoral potential, taking into account the market potential of agricultural products in the domestic market to increase profits.

Profit management mechanism is built taking into account the close correlation of profit with the volume of sales of products, income and expenses of the enterprise. Such a system is widely used in economically developed countries - the "Relationship between costs, output and profit" ("CVP")<sup>2</sup>. The CVP mechanism is based on the incremental generation of various types of operating income: margin profit, which is the difference between the sum of sales and the amount of variable operating expenses, and operating profit, which is calculated on the basis of marginal profit minus fixed costs. The tactics of managing various types of operating profit using the "CVP" system is based on its dependence on sales volume in value or in kind, from the amount of fixed in

The CVP mechanism is based on the incremental formation of different types of operating income: profit margin, which is the difference between the sum of sales and the amount of variable operating expenses, and operating profit, which is calculated on the basis of marginal profit minus

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<sup>1</sup> Blank, I. (1999): Finansovyy menedzhment [Financial management], 528 p.

<sup>2</sup> Babko, N.M. (2012): Retrospektyvnyy analiz inflyatsiynykh protsesiv [Retrospective analysis of inflationary processes]. Visnyk KHNTUSG : ekonomichni nauky - Bulletin of KHNTUSG. Economic science, no 125, pp. 67-73.



fixed costs. The tactics of managing various types of operating profit using the "CVP" system are based on its dependence on sales in value or in kind, on the amount of fixed costs, on the amount of variable costs. It should be noted that when choosing management priorities it is necessary to choose among the above factors the most controllable ones, which change requires less effort.

Increasing profits is achieved by both increasing sales and reducing costs. Increasing sales requires additional financing for production, and cost-effective implementation and cost management are sufficient to reduce costs. From the above it can be noted that the ability of the company to influence the formation of cost of production is more possible.

The present state of enterprises is characterized by high dynamicity of all factors of cost formation: prices for resources, wages, production volumes, conditions of sales, so there is an objective need for constant, comprehensive and adaptive planning of the level of production costs and forecasting the possible level of cost per unit of production at stages production where these costs are generated.

The enterprise should know as accurately as possible its possible profits from the sale of products at different levels of cost and prices, which are formed in the regional and national commodity and commodity markets. These areas of economic analysis require the processing of large arrays of technical and economic information over time, but they do not exhaust the entire volume of calculations related to production costs and cost.

The full range of variant calculations of the formation of costs and cost of production, the estimated justification of price offers and possible profits of the agricultural enterprise as a whole is based on the cost-price management mechanism, which has two aspects. The external aspect should answer the question: at what prices should the enterprise sell its products in order to provide the required level of profitability at an explicit level of costs per unit; what profitability is provided by real market prices at this level of unit cost. An internal aspect, the task of which is to ensure that the agricultural enterprise makes full use of its capabilities to reduce the unit cost of production [6].

Therefore, in order to be able to evaluate the cost effectiveness of the investment using cost-based analysis, it is necessary to address a number of important issues in the methodology of costing, planning and cost accounting. The most important of these are the following:

- organize the costing, planning and control of costs for each product by stages of its production and markets (currently used average indicators will not have an effect);
- the classification of variable costs should achieve such a degree of detail that would allow to determine the mathematical dependence of each element of costs with a certain factor of production, thereby to be able to predict the level of value of a certain type of cost when changing the relevant factor (the main role is given to the normalization of costs);
- organization of management of fixed costs (they are the real reserve for reducing the cost of production, but they are still receiving the least attention).

The analysis focused on analysis and decision-making based on direct costing and cost-based analysis of the following indicators: variable and fixed costs, marginal and operating profit, but the structure of variable costs cannot be left unanswered, the unit price of the resources used, the sales volume in terms of quantity and value, the price of sales, ie the impact of both internal technological (cost structure) and external (costs of acquiring resources and sales prices, sales) factors. These factors are less manageable, but they must be kept under control when managing profits. All these factors are closely interdependent and can be combined into a single multifactor model of analysis and estimation of profit generation by the types of resources used in production.

In order to build this model at the enterprise, the organization of the information system must be performed more fully. Comparisons can be made with the previous period, with cost standards or planned costs. An in-depth analysis of changes in financial results for each cost item takes into account that each change is the result of a number of factors.

This method of cost calculation by the method of "direct-costing" and presented cost-price and multifactor analysis using a number of financial indicators allow, in our opinion, to timely identify changes and negative trends in the cost structure, control costs and profit for each product, evaluate activity of the enterprise in terms of efficiency of use of financial resources.



Summarizing the above, we can conclude that the system of financial and credit support to agricultural market operators is one of the most important mechanisms that sufficiently strongly influences the functioning of the Ukrainian agricultural market. However, to date, the presented financial and credit infrastructure has a number of disadvantages and problems, the further solution of which will contribute to the effective functioning of the main operators of the agrarian market - agricultural producers. Despite the rapid development of domestic lending, much of the problematic issues related to the financial support of the agricultural market operators, in particular, the grain market, remain unresolved. First of all, it concerns the state support and improvement of the legal framework governing the legal and financial-credit relations in the agricultural sector and the further development of credit institutions. Also, one of the main reasons that impedes the development of crediting can be considered high cost of credit, excessive rates of obligatory reserve of funds for banks, lack of a reliable borrower, lack of guarantees of loan repayment, high level of expenses associated with providing financial and credit services, absence credit default insurance practices and more.

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## 2.7. MARKET POSITION AND FORMATION OF MARKETING ACTIVITIES OF MANUFACTURERS

The position of the enterprise and its products in the market determines the behavior of the enterprise in carrying out its current production and commercial activities. In any case, the effectiveness of the market operator of any level is evaluated by the results of sales of its products and the amount of profit. That is, these indicators illustrate the success of the current marketing policy of the enterprise, sales characteristics of its products and the effectiveness of financial management of the enterprise. Using this approach, we can, in fact, also characterize the competitiveness of the enterprise and its products through a system of baseline performance indicators of current activity, since the main criterion for evaluating the behavior of a market operator in the market is its effectiveness. At the same time, the determining factor in the selection and implementation of the scenarios produced by the manufacturers in the implementation of their marketing strategy is their position in the market.

The issues of product positioning are quite well done, both theoretically and practically. Existing tools for determining the position of a product on the market fully cover the competitive, price, quality and production aspects that characterize the position of the product in the market, its marketing potential and the possibility of further development of commodity policies based on a specific product. Significant developments on these issues can be found in the works of domestic scientists. But mainly the problem of market position is revealed in the foreign works of K. McDaniel, R. Gates, G. Churchill and others.

However, the positioning of the enterprise on the market remains more complex, less defined and much more critical in order to ensure the sustainable development of producers of products, in particular, in the crop sector.

The purpose of the study is to analyze the existing market position of the enterprise - producer of grain products, as well as to work out proposals for a possible change in the market position of producers to a higher level of distribution channels in the grain market.

In the foreign literature on product marketing management there is no single interpretation of the concept of "market position" of an enterprise or product. If foreign authors use the category of the market position of the enterprise sufficiently widely in elaborating the issues of effective marketing activity management<sup>1 2</sup>, then for domestic researchers it is more peculiar to use the conceptual apparatus of product positioning as a result of market segmentation by commodity-price or consumer criteria.

The most relevant interpretation of our study is to identify the position of the enterprise as a set of existing advantages of innovation, price, production and scale, which can significantly influence in the short term the behavior of other participants in market processes in order to obtain positive results of their activities<sup>3</sup>.

At the same time, the above authors highlight the positive, negative and neutral position of the company, while being guided by the opportunities to achieve a certain level of efficiency of marketing activities in the short term. Positive position allows the company to freely manage volumes of commodity parties, to vary the price of production, thereby influencing the behavior of the closest competitors and consumers. It foresees the possibility of selling all products at planned or higher than planned prices. A negative position implies a significant dependence of the enterprise on the commercial situation in the market of its products, which arises due to the lack of certain capabilities of industrial, infrastructural or commercial nature and causes the threat of "non-sale" or inefficient sale, and therefore not profit, the planned volume of production. A neutral position is a

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<sup>1</sup> McDaniel, C., Gates, R. Marketing Research. Burr Ridge, IL: Irwin. McGraw Hill, 2001, 360 p.

<sup>2</sup> Churchill, G.A.Jr. (1999): Marketing Research: Methodological Foundations. 7<sup>th</sup> edition. Ft. Worth, TX: Dryden Press, 780 p.

<sup>3</sup> Ivashchenko, O.V. (2012): Cuchacni tendentsiyi rozvytku marketynhu vitchyznyanykh – pidpryemctv – vyrobnykiv zerna [Educational trends in the development of domestic language - entrepreneurship - grain harvesters]. Zbirnyk naukovykh prats TDATU - Collection of scientific works of TDATU, No 2 (18): pp. 146-153.

situation in which an enterprise, due to the presence of certain innovative or commercial advantages, does not feel the need to provide a significant influence on the behavior of competitors and has the opportunity to guarantee the sale of its products at planned prices and profit <sup>1</sup>.

It should be noted that the above approach is elaborated for the state with highly developed infrastructure of virtually all object markets, the specificity of functioning of agricultural enterprises, which is significantly different from that inherent in domestic producers of agricultural, in particular grain products <sup>2</sup>. However, the use of this approach is also relevant in the context of solving our research objectives. Significant complication of the application of the approach proposed by foreign authors to positioning an enterprise specializing in the production of grain products, which, in fact, requires its deformation, are differences in the structure and mechanism of functioning of the systems of distribution of products in the domestic market. The fact is that in foreign practice the distribution of agricultural raw materials prevails, almost exclusively through the exchange trading system. In this case, the formation of consignments, the solution of logistical problems, etc. are solved at the expense of certain groups of market operators, and the accessibility of their services is achieved through a high degree of concentration of capital in the agricultural sector, which is ensured through the wide use of horizontal integration and cooperation. In turn, the domestic agrarian market is characterized by a sufficiently low degree of concentration of capital in the sphere of production, as well as the predominance of the system of direct links over the exchange trading of agricultural raw materials, which undoubtedly necessitates the need to adapt the approach to determine the market position of the enterprise to the specifics of the functioning of the productive market .

Production and technological:

- level of production resource support;
- the level of development of technology and technology;
- application of intensive and innovative technical and technological solutions, etc.

Infrastructure:

- crop storage possibilities;
- the level of solution of transport and logistics problems;
- access to trade and purchasing companies in other regions, etc.

Commercial:

- long-term relationships with regular customers;
- opportunities to buy from competitors;
- opportunities to influence the price due to quality, etc.

In our opinion, it is appropriate, taking into account the national specificity, to identify three groups of factors for the formation of the market position of the grain producer <sup>3</sup>.

First, it is a group of factors of production and technological character, because the level of technology and technology at the enterprise, the resource support of its production activity, the application of innovative solutions in the sphere of production at the enterprise directly depend on the costs of the enterprise to create a unit of production. Moreover, the higher the level of technology, technology and culture of production in the enterprise, the more attention it pays to the application of innovative solutions, the greater the competitiveness of its products and strengthens its market position, first of all, by winning in price and cost.

The second group is the factors of infrastructural nature, which include, first of all, the solution of logistical problems, namely, storage of the crop in order to reduce seasonal price fluctuations, transportation, in order to prevent losses, as well as to ensure the physical functioning of the links with consumers. the basis of successful marketing activities.

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<sup>1</sup> Mandych O.V. (2017): Stratehiyi konkurentospromozhnoho rozvytku ahrarykh pidpryemstv [Strategies for competitive development of agrarian enterprises]. Ekonomichnyy visnyk Zaporizkoyi derzhavnoyi inzhenernoyi akademiyi - Economic Bulletin of the Zaporizhzhya State Engineering Academy, No 1 (07): pp. 116-120.

<sup>2</sup> Churchill, G.A.Jr. (1999): Marketing Research: Methodological Foundations. 7<sup>th</sup> edition. Ft. Worth, TX: Dryden Press, 780 p.

<sup>3</sup> McDaniel, C., Gates, R. Marketing Research. Burr Ridge, IL: Irwin. McGraw Hill, 2001, 360 p.

Finally, the third group is the commercial factors, which, in fact, determine the formalization of the system of distribution of products applied in the market, and therefore the financial results of the activity.

We share the approach of foreign researchers, which comes down to classifying the market position of an enterprise as positive, negative and neutral, depending on the capabilities and the need to influence the behavior of competitors <sup>1</sup>. At the same time, as a criterion for the effectiveness of the position, we propose to use the indicators of profit from current activities, and to ensure a reliable determination of the position of the company to consider them in the dynamics in the context of individual types of products, taking into account the system of measures aimed at the development of individual product lines. This approach, in our opinion, is fully consistent with the current realities of the functioning of the domestic agroindustrial complex, in particular, its grain subcomplex.

At the present stage of development of the domestic agrarian market, a positive, negative or neutral position of an enterprise is determined, first of all, by its location in the structure of the distribution channel of production. The current structure of distribution channels in the domestic market for agricultural products <sup>2</sup>.

The main suppliers forming the supply of agricultural products on the domestic market of the country are the enterprises-producers of food and agricultural products, enterprises-importers and personal peasant households of the population. In our analysis of the functioning of the systems of distribution of products, agricultural enterprises, food and processing enterprises, as well as personal farms, in our opinion, should be attributed to the sphere of production, and to all other market participants who do not use the products that are the object of distribution, for direct consumption, to the sphere of circulation. In other words, the latter are shaping the marketing infrastructure of the commodity market.

The priority of the category of supplier related to the sphere of production in the markets is determined by the object of market activity, the volume and intensity of commercial demand for it, the ratio between domestic production and imports. The priority of the supplier category is determined by the most common combination of distribution channels when dealing with a particular product on the market <sup>3</sup>.

In particular, as the studies show, the structure of distribution channels in the grain market includes intermediaries of three levels: the first level intermediaries perform a certain list of logistical and marketing services in rather unfavorable conditions for primary producers, as a rule, these market operators own the capital of the grain storage industry; the second tier of distribution channel members are large resellers serving the domestic market and performing large-scale purchases for exporters, their suppliers being first resellers and often large producers; The third level consists of exporting enterprises, grain reserve companies and large processing enterprises, their target consumer audience is either outside the Ukrainian grain market or in the markets of deeper grain processing products.

Direct marketing is not a widespread distribution channel in this market, primarily because agricultural enterprises are unable to form large batches of standard grain products and therefore producers cannot compete with even the first-tier intermediaries, ie effectively change their position in the structure of the product distribution channel.

Thus, the most rational way to change the market position of the grain producer is to create conditions for the formation of commodity parties in volumes of interest at higher levels of

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<sup>1</sup> Kvyatko, T. M. (2017): Henezys naukovykh osnovnykh teoriy konkurentsiyi [Genesis of the scientific principles of competition theory]. Visnyk KHNTUSG : ekonomichni nauky - Bulletin of KHNTUSG. Economic science, no 182, pp. 154-162.

<sup>2</sup> Ivashchenko, O.V. (2012): Cuchacni tendentsiyi rozvytku marketynhu vitchyznyanykh – pidpryemctv – vyrobnykiv zerna [Educational trends in the development of domestic language - entrepreneurship - grain harvesters]. Zbirnyk naukovykh prats TDATU - Collection of scientific works of TDATU, No 2 (18): pp. 146-153.

<sup>3</sup> Mandych, O. V. (2014): Osnovni faktory formuvannya rynkovoyi pozytsiyi vyrobnykiv zerna [Main factors of formation of market position of grain producers]. Visnyk KHNTUSG : ekonomichni nauky - Bulletin of KHNTUSG. Economic science. no 149, pp. 224-229.

marketing infrastructure of the domestic grain market.

Further development of marketing activities of the enterprise consists in elaboration of schemes of functioning at the specified level of the structure of the distribution channel of production, namely approbation and development of schemes of purchase and sale of lots of agricultural products from agricultural producers presented on the local market of agricultural products, without involvement of integration tools. That is, in order to operate at a higher level of marketing infrastructure, an enterprise must act not only as a supplier of agricultural products of its own production, but also as the first intermediary in the structure of the distribution channel of agricultural products, which purchases products from direct producers and its sale to intermediaries and consumers levels of the distribution channel structure.

The implementation of such a mechanism for the construction of marketing activities of the enterprise requires the consistent implementation of several stages of organizational and managerial intervention in the production and commercial activity of the enterprise, related to the implementation of appropriate shifts in commercial activity, organization of business management of the enterprise, creating conditions for timely and adequate response to changes in the market the enterprise environment, developing relevant contacts with future contractors and developing existing contacts with target audience of consumers and suppliers of products. The proposed measures are aimed at the transition of competitive relations into partnership and cooperation relations, in case the company operates at a higher level of the structure of the agricultural distribution channel.

The market position of an enterprise is defined as the set of available advantages of innovation, price, production and scale nature, which allow to influence significantly in the short-term period the behavior of other participants of market processes in order to obtain positive results of its activity.

The market position of the enterprise is formed under the influence of three groups of factors, namely, factors of production, technological, infrastructural and commercial nature. It is advisable to highlight the positive, negative and neutral market position of the company.

Measures to strengthen the market position of the company:

- developing a position at a higher level of the distribution channel;
- increase in the volume of sales of purchased products (intermediary operations);
- development of marketing of agro-technological services;
- increase in sales of products received as payment for services;
- increase in sales of own production;
- increase in sales of enterprise products, etc.

One of the main approaches to the organization of activities is the marketing approach, which is the philosophy of modern enterprise management, the content of which is to determine the supply and demand for specific products, to provide the necessary resources to meet public demand, in a timely delivery of the goods to the consumer, in obtaining the maximum profit.

In the economic literature, there are three different approaches to the organization of marketing of enterprises: planning, networking and approach oriented.

The planned approach is the most recognized. It involves two main stages: conducting market research and formulating marketing plans that can be carried out sequentially or in parallel using formalized and sophisticated methods, or through various analytical tools. The overall purpose of the planning approach is to strike a balance between the internal environment of the organization and the often unfavorable environment that is external to the enterprise. If the firm's environment is stable, then such marketing planning is unnecessary. On the other hand, if the environment is too unfavorable, then marketing planning is not possible. Therefore, marketing planning in this approach is carried out under the following conditions and is based on a number of assumptions:

- marketing research is carried out in accordance with the rules governing the quality of research;

- formal marketing planning puts the success of the enterprise directly dependent on planning, but the existence of this connection is questionable, because the assertion that activation of planning leads to success is not obvious;
- planning is more difficult to carry out in small (small and medium-sized) enterprises because they are more action oriented than planning, have a lower level of responsibility of managers and lack of attention to marketing problems;
- over time, marketing plans become formalized.

According to the network approach, the market is a collection of specific autonomous entities that, when interacting, form long-term relationships with consumers. Common features of network and planning approaches are that they are based on certain assumptions - the creation and development of long-term relationships, short-term relationships in the market in the form of one-off transactions are not subject to consideration. Long-term relationships between producers, resellers and consumers are built on mutual trust, which helps reduce transaction costs and create the basis for resource sharing. When using a network approach, marketing strategy and organization are not the result of planning - they are created as a result of interaction that occurs in the context of long-term relationships.

In an action-oriented approach, planning plays a minor role. Instead, the enterprise should have a high capacity for action, which should be ensured by strategic management with the following features:

- constant monitoring of changes in the environment and the environment;
- development of individual event scenarios for the near future;
- creation of effective financial and management potentials;
- regular formulation of the operational strategy on the situation;
- creating capabilities for rapid response and action.

Regarding the peculiarities of marketing activities in the grain subcomplex, it should be noted that in the grain market at different levels of its operators different approaches to the construction of their marketing prevail. In our view, at the level of product-producing operators, as the first participants in market relations, there is a network approach, which is caused by the considerable discretion of their quantity. At the level of intermediary operators specializing in trading and purchasing activities, the main approach to organizing their marketing activities is a planned approach. Large grain traders vary between an action-oriented approach and a planned approach.

There are different approaches to organizing business marketing, but they are all interconnected. For grain companies, the marketing organization system will consist of 3 subsystems. The first subsystem is the functional support for the organization of marketing activities, which is the connecting link for the other two subsystems - marketing studies of the market environment and marketing actions of the enterprise.

The main ways to ensure the effective formation and implementation of the marketing policy of the grain subcomplex enterprise are: search for the optimal structure of sales of enterprise products; establishing links with members of higher-level distribution channels; elaboration of schemes of direct marketing of products, in particular, processing enterprises, in order to increase the efficiency of its realization; solving the problem of storage of agricultural commodity lots in order to use seasonal price fluctuations; attraction of progressive tools of service of channels of movement of the goods.

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## 2.8. INNOVATIVE MARKETING TECHNOLOGIES FOR CONDITIONS OF ORGANIC PRODUCTION

Environmental friendliness is a global trend, which today manifests itself in everything from the rapid spread of electric vehicles and furniture from recycled materials, to the cultivation of food products "by the old-fashioned methods" – without the use of pesticides and chemical fertilizers. Such agricultural products are called "organic." In modern conditions of development, one of the promising areas of agriculture is organic production and the market, which is formed on its basis. The latter is considered in the world as a promising, high-tech, largely innovative direction, which stimulates the sustainable development of rural areas, has a positive effect on human health, reduces direct and indirect anthropogenic stress on surrounding ecosystems and increases natural biodiversity. And for world players, this is an opportunity to differentiate their exports by supplying organic value-added and non-food products to the market. However, the development of the market for environmental products in Ukraine, despite worldwide recognition, is proceeding at a very slow pace. The formation of this process is affected by a number of reasons, among which it is necessary to highlight the partial (not complex) use of marketing tools<sup>1</sup>.

The term "ecological (organic, biological) production" and its interpretation were given and deciphered in the EU directive "Common European Agreement on Organic Production of Agricultural Products No. 2092/91 of June 24, 1991." However, from June 1, 2009, a new directive No. 834/2007, which defines:

- basic norms of ecological farming, such as: a complete ban on the use of modified seed, cloning and irradiation, synthetic and chemical means of tillage and plant protection in farms producing organic products;

- basic norms of ecological animal husbandry, such as: the use of only ecological feed, the non-use of synthetic additives, growth stimulants and gene technologies. The obligatory free grazing of animals in the summer and the ban on tethered livestock are also stipulated;

- labelling of organic products, which includes a mandatory logo. This labelling clearly indicates that 95% of the ingredients of the product were of organic origin, and the packaging of the product eliminates the change in its content without disclosing it.

In addition to creating a favourable legislative framework for increasing the consumption of organic products, it is necessary to develop this market, consumer demand and, accordingly, popularize organic products among the population and improve the tools for their promotion on the markets<sup>2</sup>.

Advanced European countries are actively developing the production of organic products and intensify their market promotion<sup>3</sup>. Although there is no reliable data on the superiority for the health of organic products over conventional products so far. Today, the market for organic products is one of the fastest growing segments of the global market for agri-food products. For example, in 1999, the global area of certified organic agricultural land amounted to 11 million hectares, and in 2017 this figure increased to 69.8 million hectares (Fig. 1) (in 2016 - in the world under the production of environmentally friendly products 57.8 million hectares were occupied, that is, over the year, the amount of organic land increased by 20%).

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<sup>1</sup> Babenko, V.; Perevozova, I.; Mandych, O.; Kvyatko, T.; Maliy, O.; Mykolenko, I., (2019): World informatization in conditions of international globalization: factors of influence. *Global. J. Environ. Sci. Manage.*, 5(SI): 172-179. DOI: 10.22034/IJHCUM.2019.05.SI.19

<sup>2</sup> Kulish L.P. (2019): Rozvytok konkurentospromozhnoho orhanichnogo vyrobnytstva v Ukrayini [Development of competitive organic production in Ukraine]. *Investytsii: praktyka ta dosvid - Investment: practice and experience*, no.1. pp. 42-46.

<sup>3</sup> Sevidova, I. O. (2018): Priorytetni napryamy realizatsiyi eksportooryentovanoyi stratehiyi ahrarnymy pidpryyemstvamy [Priority directions of development of agrarian enterprises in modern conditions]. *Ekonomika ta derzhava - Economy and state*, no. 2, pp. 46—49, available at: <http://www.economy.in.ua/?op=1&z=3980&i=10>



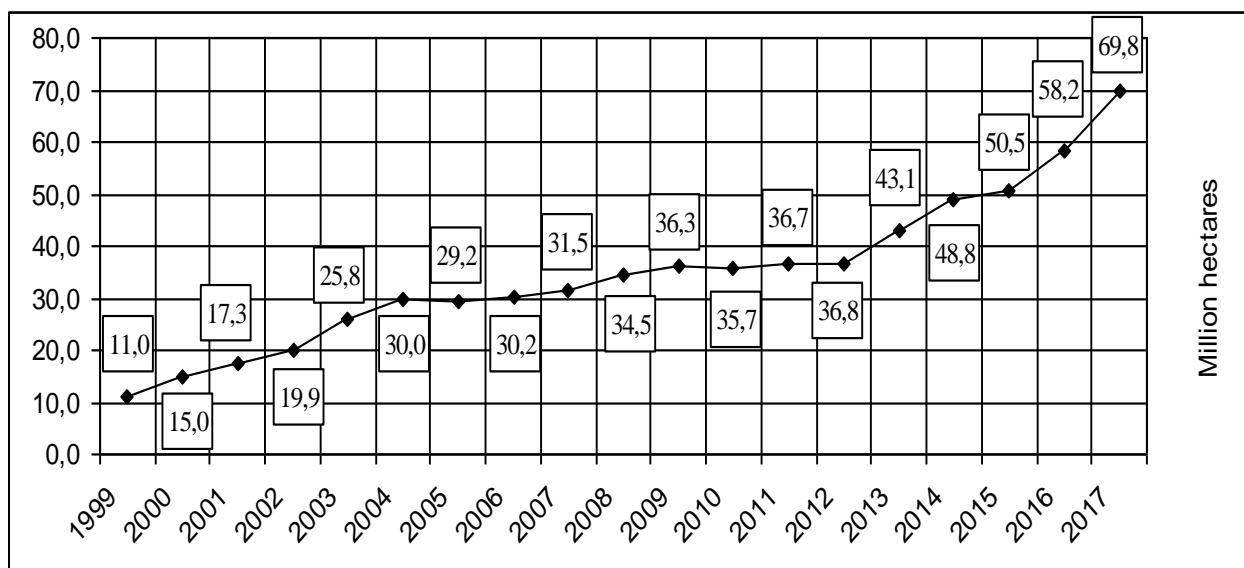


Fig. 1. Growth of the organic agricultural land 1999-2017 \*

\* Source: FiBL-IFOAM-SOEL-Surveys 1999-2019

The three leading countries with the largest number of certified organic farmland are Australia, Argentina and China (Fig. 2).

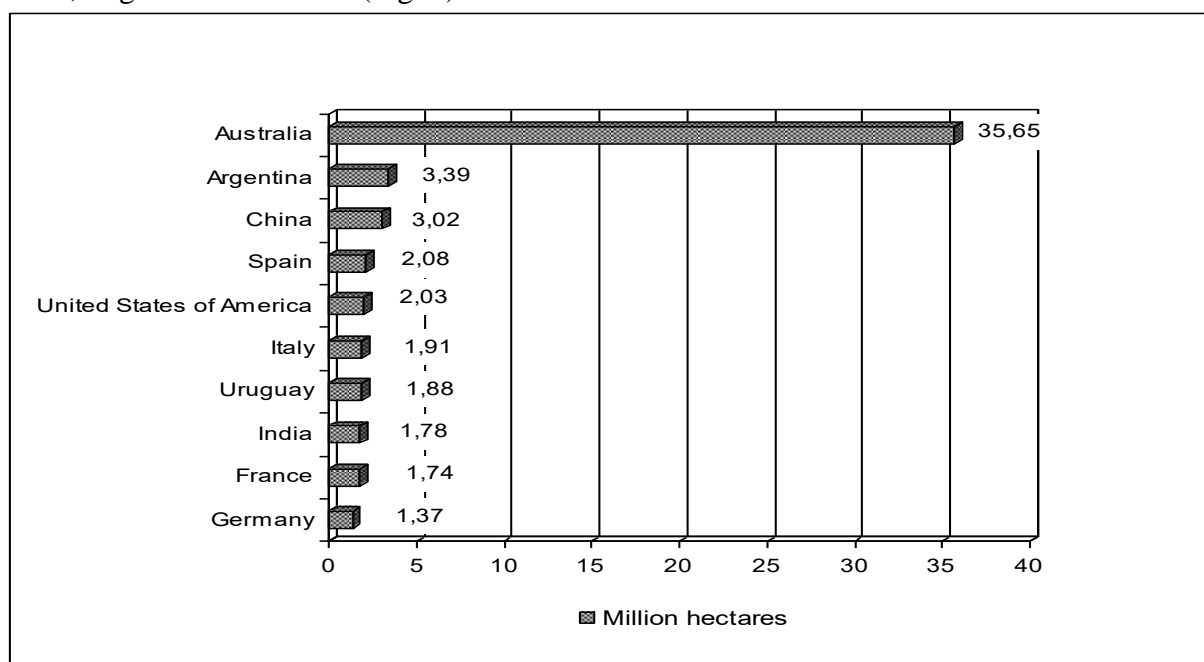


Fig. 2. The 10 countries with the largest areas of organic agricultural land, 2017 \*

\* Source: FiBL survey 2018

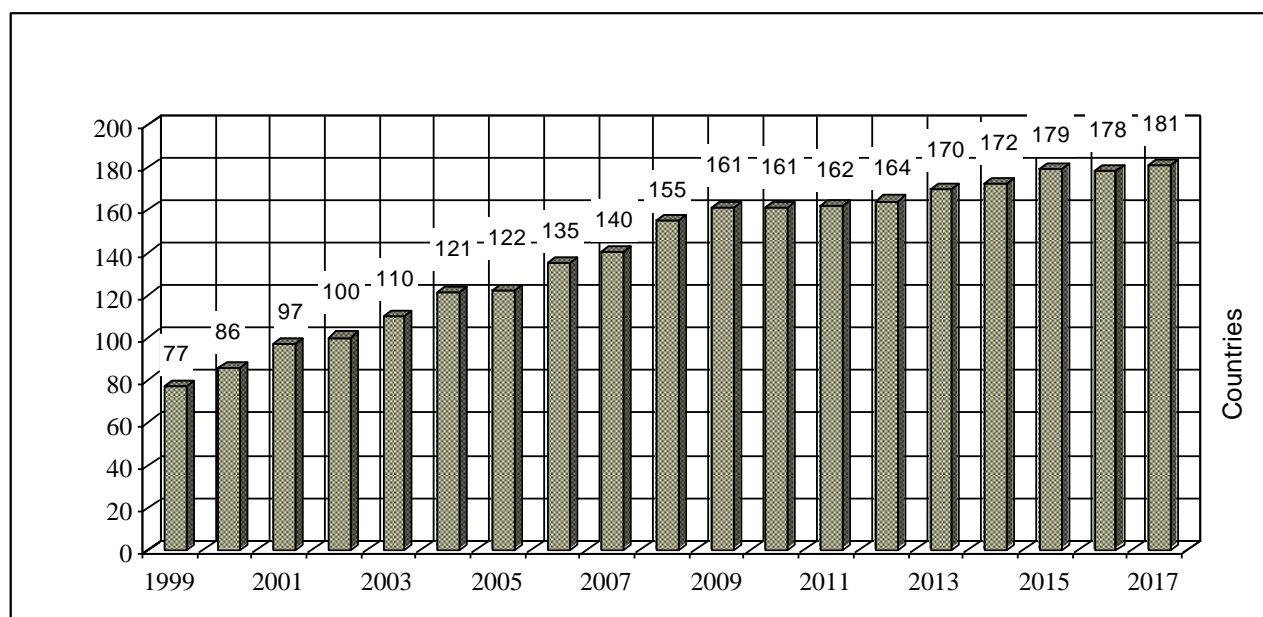
In terms of the share of organic land in the overall structure of farmland, the leaders Liechtenstein – 37.9%, Samoa – 37.6%, Austria – 24.0%, Estonia – 20.5%, Sweden – 18.8%, Sao Tome and Principe – the leaders in the share of organic land in the total structure of farmland 18.0%, Italy – 15.4%, Latvia – 14.8%, Switzerland – 14.4%, Uruguay – 13.0%, Czech Republic – 12.2%, Finland – 11.4%, France – 10.0% and Slovakia – 10.0%.

An organic approach, while capable of leading to improved local food security, opens up more opportunities for trade and increased wealth. When uncertified organic production can increase productivity and provide greater ecosystem stability in the face of increasing extreme weather events, which naturally enhances the well-being of smallholder farmers in the most vulnerable countries, certification of organic farms allows them to enter new markets and benefit

from higher product prices. When switching to certified organic production, the number of positive effects increases. These include raising the level of education of farmers and revitalizing local communities. In turn, the need to manage ecosystems as a whole leads to a more efficient use of shared resources and helps to increase the level of agro-management. The cooperative form of organization characteristic of organic farms facilitates a more active exchange of knowledge and experience, facilitates interaction with administrative institutions, and leads to lower production costs, as well as certification costs, which is especially important for small farmers.

In some cases, the higher added value of organic products stimulates national governments to more actively promote the output of products on foreign markets. This leads to a gradual improvement of infrastructure, and then to increased trade in foreign and domestic markets, contributing to the growth of farmers' welfare and food security, both in producing countries and in food-consuming countries. At the same time, the importance of regional markets is growing: improving infrastructure opens up new opportunities for trade at the regional level, which is extremely important for small developing countries suffering from “high barriers” in developed markets. Thus, an increase in trade in certified products due to positive infrastructure effects can also contribute to an increase in trade in uncertified products, opening up new opportunities for increasing income and increasing food security. In the case of certified products, due to the complexity and high cost of certification procedures and the need for scientific and consulting support, accesses to markets and support from the state or large distribution networks are critical, at least at the initial stage.

The number of countries producing organic agricultural products is gradually increasing in the world. In 1999, organic farming was practiced in 77 countries, in 2017 this figure increased to 181 (Fig. 3). It should be noted that in only 93 countries of the world, organic agriculture has legal regulation.



*Fig. 3. Development of the number of countries with data on organic agriculture 1999-2017 \**

\* Source: FiBL-IFOAM-SOEL-Surveys 1999-2019

Ukraine ranks 20th in the world and 11th in Europe in the total area of agricultural land certified as organic. Over the past 5 years, their area has increased by 54% and currently stands at 426 thousand ha, of which 48.1% are used for growing grain (7th place among countries producing organic grain crops). More than 16% is occupied by the production of oilseeds (5th place in the world): 4.6% - legumes (7th place): 2% of farmland is occupied by the production of vegetables (10th place): and 0.6% of land - under the fruit [3]. Over the past few years, Ukraine has become an important supplier of organic products to the Western market, in particular to the EU countries. The

prices of ecological products on the shelves of European stores are higher by 20-25% of their analogues of traditional production. The development of the agricultural sector in Ukraine is mainly due to exogenous factors. According to the commercial service of the US Embassy in Ukraine, the average return on investment in organic agriculture is about 300%, which makes it one of the most attractive areas for investing in the Ukrainian economy. An additional incentive is the constant increase in the demand for organic products in the EU countries, which stimulates exports. The largest importing countries of Ukrainian organic products, according to Organic Standard (2017): are the Netherlands (100 thousand tons): Germany (50 thousand tons): Great Britain (40 thousand tons): Italy (30 thousand tons): Austria (14 thousand tons): Poland (7 thousand tons): Switzerland (6 thousand tons): Belgium (3 thousand tons): Czech Republic (3 thousand tons) and Bulgaria (2 thousand tons). The main products of Ukrainian export are wheat (80 thousand tons): corn (74 thousand tons): soybean (17 thousand tons): barley (12 thousand tons): sunflower (12 thousand tons): spelled wheat (8 thousand tons): apples and concentrate (5 thousand tons): millet and millet (4 thousand tons): rapeseed (4 thousand tons): frozen blueberries (4 thousand tons)[3]. About 80% of organic products produced in Ukraine are exported. Over the past few years, Ukraine has established itself in foreign markets as a confident organic player to be reckoned with. The main products of foreign trade in 2018 were cereals and oilseeds, legumes, wild berries, mushrooms, nuts and herbs. In 2017, organic producers exported organic honey for the first time. In 2018, its export volumes amounted to 300 tons. The volume of exported frozen raspberries has also grown - 400 tons (2018.) And the first Ukrainian producer of organic sugar "Deaddens Agro" sent 800 tons of sugar to the European market last year. In total, in 2018, Ukraine delivered abroad more than 70 different organic products. More and more manufacturers are ready to sell not only raw materials, but also semi-finished products, as well as deep processing products. But, unfortunately, today Ukraine is still perceived in European markets as a raw materials appendage, and not as a country that can present a high-quality organic product. Therefore, in order to find their foreign customers, Ukrainian companies must take an active part in exhibitions, study the tastes and needs of foreign consumers, and collaborate with the media.

The organic market is one of the fastest growing markets in the world. The annual increase in organic production is about 10-20%, which confirms the trend towards sustainable agricultural development and the understanding by most countries of the advantages of this type of agriculture.

Organic producers are supported by EU countries at all levels, which determines the development of production proposals. Studies show that today in Eastern European countries the sales of organic products remains at a lower level compared to Western European countries. In countries of Eastern Europe, there is insufficient capacity for processing organic agricultural products, which are exported in large volumes to other countries. According to analysts, in the near future we should expect stable growth in sales of organic products and an increase in its share in the food market in all countries of Western and Eastern Europe. There are several main trends in the development of the market for environmentally friendly products. The global market for organic food is developing more dynamically compared to the market of inorganic "mass" products. The fastest growing segments of the organic market are "fruits and vegetables", as well as "milk and dairy products". The growth in sales of organic products indicates that today the buyer is willing to pay more for a high-quality organic product. According to the Ministry of Agriculture of Switzerland, from September 2017 to August 2018, 46.7 thousand tons of organic vegetables worth € 340 million were sold in the country. This is 7 % more than a year earlier. The drop in consumption of conventional vegetables was 3%. Although prices for organic products were on average 49% higher.

The largest share of the organic market (13.3% of the total food market) is today in Denmark. In total, there are 2.9 million organic producers in the world. Their largest number in India is 835 thousand, in Uganda - 210.4 thousand, in Mexico - 210 thousand operators. In Ukraine, the number of organic producers is also increasing every year. So, for example, in 2016, there were 426 organic operators in the country, at the beginning of 2019 - 617 (Table 1).

Table 1. The dynamics of the development of organic production in Ukraine for 2016-2019

<i>289 thousand ha - the total area of organic agricultural land</i>	
2016	426 organic operators
2017	504 organic operators
2018	588 organic operators
14.03.2019	617 organic operators

Most of all organic operators are engaged in organic crop production. Of the 617 operators, 324 are engaged in crop production. The majority of Ukrainian producers are certified in accordance with organic EU standards, which are used both for export and in the domestic market. Many are certified by the US National Organic Program (NOP). The most common certificates among organic operators in Ukraine are Bio Suisse (Switzerland); Bioland and Naturland (Germany); COR (Canada); Soil Association (Great Britain) and KRAV (Sweden).

Ukrainian organic producers are increasingly considering the possibility of selling branded products, because companies that produce a “recognizable” product can rely on higher product margins [2]. The law “On basic principles and requirements for organic production” is in force in the country, according to which for unscrupulous manufacturers and sellers who mark their products as organic, without having the appropriate authority, a fine of 30 thousand UAH is provided - for legal entities - and 19 thousand UAH - for individuals. The law is primarily aimed at developing the domestic market. But because of how much we are able to streamline and bring our legislation and the domestic market to European standards, a national reputation depends.

The Ukrainian domestic organic market began to take shape in the late 2000s, and the first organic-labelled products appeared on the shelves of retailers in 2008. Today, the main sales channels for domestic organic products are still retail chains or specialized stores in large cities. And the biggest problem of the domestic market remains low consumer awareness of organic products, their benefits and production features. An important factor is the low purchasing power of the population. Therefore, Ukraine today also needs to take active steps in promoting products on the market. Ukrainian producers of organic products have minimal support from government agencies; they also lack production capacities and financial resources for the active development of this industry. As a rule, in Ukraine, the production of organic products, as in developed countries, is carried out by private entrepreneurial structures. Given the situation is argued that the interest of these entities in the production of environmentally friendly products is to obtain additional profit<sup>1</sup>.

In Ukraine, organic products belong to the premium segment, their main consumers are representatives of the middle and upper class, that is, about 20% of Ukrainians. The most active consumer of these products is the population aged 25-45, with higher education, with an average and high income level. The main motives for buying and consuming organic products are health benefits, lack of artificial ingredients and preservatives, natural taste and safety.

There are certain risks and advantages in any business area. Organic farming is no exception. The advantages of this type of business include:

- you can sell organic products much more expensive, because demand really exceeds supply, especially in the EU countries, England, Switzerland and the USA. Understanding the growing demand also allows attracting investments in organic business in Ukraine;
- marketing chains and distribution channels do not work well enough, so now you can easily form a high price due to the fact that the market is only emerging;
- high prices compensate for the low financial return from growing crop rotation crops needed to return nutrients to the soil;

<sup>1</sup> Kvyatko, T. M. (2014): Ahromarketynh yak skladova pidvyshchennya efektyvnosti diyalnosti vitchyznyanykh silhospidpryyemstv [Agromarketing as a warehouse for efficient business activities of foreign companies]. Naukovyy visnyk LNUVMB - Scientific Bulletin of LNUVMB, no 1 (1): pp. 213-218.

- systemic planning of organic business creates the opportunity to avoid future costs of combating environmental pollution, rapid climate change, as well as additional purification and rehabilitation of both the farmer and his family, and each buyer of organic products, while creating long-term financial opportunities to buy organic products are more expensive than the rest;

- during natural breeding, animals receive a natural balanced diet and enough space for life in comparison with the bulk of animals that are raised in closed conditions, intensively stimulating growth and reproduction;

- organic business is real and fully protected by law in most countries of the world, including to a certain extent in Ukraine. The finished product or a batch of raw materials can be labeled as organic only if the clear requirements that are established for organic production are met;

- organic farming protects the health of farmers and society. Numerous studies indicate the relationship between pesticides and diseases;

- the organic agricultural system, which dispenses with the purchase of synthetic fertilizers and pesticides, significantly reduces the dependence of farmers on agricultural concerns;

- now the market of organic production and organic products is formed by professionals who understand the importance of modern agricultural technologies, business and marketing innovations and have sufficient experience to accelerate the development of the agricultural sector.

The risks should include<sup>1</sup>:

- small batches of goods and the fragmented quality of each batch do not allow to establish an effective system of buying / selling in the domestic, and even more so in the foreign markets;

- Ukraine's small experience and distrust, as well as the unstable political situation in the country, do not allow traditional farmers to use "profitable" technological schemes already developed by organic farms and organic experts;

- prices / cost / of organic products include not only the costs of their production as such, but also depend on a number of other factors that do not play a role in pricing traditional products. These are conservation of biodiversity and deliberate environmental protection, restoration of soil fertility and a large percentage of manual labor. Speed of life and speed of decision making - What to buy? Organic or traditional food? - do not allow through the package to convey the full depth and value of the organic product;

- an unstable land market and a decrease in pastures lead to great risk and even the inability to create a holistic organic farm as a full-fledged resource-efficient organism;

- additional regulation creates resistance in business, and in Ukraine also a corruption component. Moreover, additional checks and analyzes cost money, which also affects the development of organic business;

- there is no long-term scientific evidence that organic products are indeed more beneficial to human health;

- the organic farmer is very dependent on the system of organic preventive methods, because most biological products and technological maps are aimed at the stable and long-term creation of a strong plant or animal and healthy ecosystem;

- the agricultural market is full of offers of traditional agricultural technologies, and there is very little information about organic methods, it still finds itself a stable place in the stream of motivational calls for a businessman to make one or another choice.

The organic approach is more sustainable than traditional systems based on mechanization and abundant fertilizer application. This is true not only for the least developed countries, but also for developing countries, where the use of organic methods can lay a stable foundation for the long-term development of agriculture. The role of government in ensuring the transition to sustainable agricultural practices remains key. It is also necessary to use marketing tools for the development of the Ukrainian organic market:

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<sup>1</sup> Sevidova, I. O. (2018): Formuvannya stratehiyi na osnovi naukovykh doslidzhen z vykorystannyam instrumentariyu nekooperatyvnoyi teorii ihor [Formation of strategy based on scientific research using the tools of non-cooperative game theory]. Efektyvna ekonomika - An efficient economy, no 3., pp. 35-45.

- Organization of a broad PR-company to increase public awareness of the benefits (economic, social, environmental and health) of organic production and organic food;
- Development of agricultural cooperation to establish joint marketing of organic products;
- Creation of a national system of certification and quality control of agricultural organic products, organic certification bodies of all forms of ownership;
- Creation of a national guarantee system that meets the requirements of the legislation of the EU and other countries;
- Establishment of mutually beneficial partnerships between producers of organic products and other operators of the agricultural market.

Today, Ukraine has every chance to become one of the main players in the international market for organic products. However, Ukrainian producers of this product should also not underestimate the work of marketing services, since it is they who, with the help of various marketing tools, are called to turn a potential client into a real consumer (client). Between productions, that is, the creation of value, and sales, there is a necessary and important stage, namely, the study of markets and its niches, as well as attracting customers (consumers of a product or service). It is the implementation of this phase that the marketing services are responsible. And the need to create competent and professional marketing services should be recognized by Ukrainian agricultural and agro-industrial enterprises. In particular, those who work in niche segments, for example, in the production of organic products.

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## **2.9. STRATEGIC MANAGEMENT OF ENTERPRISE MARKETING ACTIVITIES BASED ON SWOT-ANALYSIS**

It is known that the results of the analysis of production and marketing opportunities allow us to assess the suitability of the enterprise to market demands, on the basis of which programs are developed for the enterprise and its behavior in the market, decisions are made on the choice of target markets and the details of marketing policy components. The necessary components of such analysis should be an assessment of the financial condition of the enterprise, its organizational structure of management, in general, and the structure of marketing divisions, in particular, production capacity and material and technical base, personnel potential, product range and competitiveness of manufactured products, production costs, sales and promotion system, goods to market, information infrastructure and more.

Based on the analysis of these factors and taking into account the results of the environmental study, it is possible to assess the state of the enterprise, ie to determine the effectiveness of the current strategy, strengths and weaknesses, opportunities and threats of business enterprise, competitiveness of prices and costs, strategic, tactical and operational problems. You can determine these aspects of the current activity of the enterprise by resorting to the use of certain analytical tools: SWOT - analysis, cost analysis, analysis of the value chain, the assessment of competitive position. To date, in an unstable system of producer-level marketing information, it is most appropriate to use these methods, the most effective of which, in our opinion, is SWOT analysis.

A SWOT analysis is an assessment of an enterprise's internal environment (strengths and weaknesses): as well as external opportunities and threats. Potential strengths of the enterprise can be attributed to the availability of financial resources necessary to achieve the goals; good reputation among consumers; well-designed functional strategies; low costs; availability of a developed material and technical base; perfect management and more. Potential weaknesses include: lack of clear strategy; outdated production facilities; imperfect management; poorly organized distribution system; narrow nomenclature of manufactured products.

After identifying strengths and weaknesses, the company must identify its market opportunities, which, in turn, determine its strategy. Potential external opportunities include the ability of an enterprise to enter new commodity markets or serve new consumer groups, expand its product range, use vertical integration measures, the ability to rapidly develop certain areas of activity due to the rapid increase in demand, etc.

Of course, in the process of identifying potential opportunities, it is necessary to simultaneously identify threats that meet them, in particular, the emergence of cheaper products, deterioration of the competitive situation, unfavorable state regulation, adverse demographic changes, adverse changes in foreign exchange rates, slowing the growth of commodity markets. Market opportunity analysis also involves the use of strategic cost analysis, which focuses on comparing the costs of the enterprise with the results of sales of products and the results of production and commercial activities of competitors, which is advisable to perform within the existing cost chain. They also analyze costs in the so-called value chain, which defines the activities, functions and processes for the production, promotion, distribution and maintenance of goods in the market. This analytical approach allows you to better understand the cost structure and find ways to reduce them further. In this case, the competitiveness of the enterprise from the cost point of view depends not only on the internal production costs, but also on the costs in the value chain of suppliers and resellers that are the objects of analysis.

A necessary element in the analysis of the state of the enterprise is a systematic assessment of its competitive position in comparison with the closest (main) competitors. The main parameters of such analysis are the strength of the enterprise retaining its position in the marketing activities, the place of the company among the main competitors on certain grounds of competitiveness, the prospect of strengthening or weakening the competitive position while maintaining the strategy used.

It is well known that the choice of target markets and target consumer groups is made in the practice of segmentation-based marketing. In this case, the market segment defines a group of consumers, characterized by the same reaction to the products offered and a set of marketing incentives. Market segments can be classified as product targets and consumer targets within the specified definition.

Segmentation has certain stages: the choice of segmentation criteria, a thorough study of the characteristics of each segment, the choice of one or more target market segments. When segmenting the market for commodities and industrial products, the following criteria are used first: geographical (location: country, region, administrative division, climatic conditions, etc.); production and economic (industry, size of the enterprise, conditions and forms of payments, size of purchases, terms and discretion of deliveries, level of culture of production, etc.); psychographic (personal and other characteristics of decision makers in the enterprise); behavioral (the degree of formalization of the procurement process, the duration of the decision-making process, the distribution of powers between decision-makers and their motivation).

In order to select an effective market segment, it is necessary to evaluate the available segments according to the following basic criteria.

1. Segment profitability. In order to evaluate this indicator, it is necessary to determine the volume of the market in the segment, the approximate level of the realistic price, as well as the costs that will accompany the activity of the enterprise in this segment. On the basis of simple calculations, we can conclude the scale of profit from the operation of the selected segment<sup>1</sup>.

2. The competitive situation in the segment, that is, the fundamental opportunities and market experience of competitors in the segment, the segments of the segment controlled by competitors, the likely forms and terms of response of competitors to the beginning of the enterprise in the segment.

3. Availability of sales channels in the segment. This question is one of the main, and often crucial, questions. An enterprise may have a competitive product, but this will not be enough without access to consumers.

4. The efficiency of commodity traffic in the segment. Commodity channels must provide everything necessary for the efficient movement of goods, that is, all logistical problems must be solved or be resolved.

5. The possibility of information promotion of the product in the segment. The organizational and technical possibilities of information promotion of the product as well as the costs that accompany this process are analyzed.

6. Opportunities to support the product in the segment. If the product requires additional services on the part of the supplier during distribution, then such services must be provided, whereby their competitiveness will depend on their quality.

7. Technological difficulties of work in the segment. Analyzing the attractiveness of a segment by this criterion, we analyze the problems of production issues related to equipment, raw materials, capabilities of the enterprise, personnel, etc.

In order to reach a final conclusion about the correct choice of a particular target product or consumer segment, it is necessary to position its products. Product positioning is the definition of its place on the market in a number of other products similar to it from the consumer's point of view. Positioning should be competitive, which is ensured by the properties of the product, its quality, price and other characteristics. In case of positive result of positioning it is possible to pass to development of strategy and tactics of management of marketing of the enterprise, formation of all its complex components<sup>2</sup>.

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<sup>1</sup> Borodin, K.G. (2014): Model' analiza prognozov razvitiya agropredovol'stvennykh rynkov v usloviyakh menjajushhihsja mer zashhity i investirovaniya [Model of analysis of forecasts of development of agri-food markets in the context of changing measures of protection and investment]. Nikonovskie chteniya – Nikon readings, No. 19, pp. 74-76.

<sup>2</sup> Babko, N.M. (2012): Spetsialni rezultaty diyalnosti silskohospodarskykh pidpryemstv u vsikh rynkovykh ekonomikakh [Special results of activities of agricultural enterprises in all market economies]. Zbirnyk naukovykh prats TDATU - Collection of scientific works of TDATU, No 2 (18): 14-20.



Of course, at the level of improvement of the enterprise activity management, it is not possible to solve all the above problems, however, it is due to the improvement of the functioning of the marketing management system at the enterprise level that it is possible to get rid of most of them. In particular, due to the diversification and differentiation of produced products, the deepening of processing of agricultural raw materials within the production cycle of the enterprise can eliminate the negative impact of wholesale intermediaries that dominate the commodity markets. By solving the problem of storage of the crop in the enterprise, bringing the raw materials to commodity conditions can be independently operated at a higher level of the structure of the agrarian market, while also leaving the maximum rate of profit at the enterprise.

We must bear in mind that both in the case of operating on the market with agricultural raw materials, and in the case of operating on the market with the products of its processing, we are dealing with a standard product, which without our participation is present on the market. Undoubtedly, even in this case we can make a successful attempt to make our product offer unique to the consumer at the expense of price, quality, support or support of the goods, but these markets are characterized by intense competition, and therefore the reaction of competitors to our actions will come quickly enough. That is why, without a well-formed strategy for the development of goods, it is impossible to effectively manage the marketing activities of the enterprise, in particular, and all its production and commercial activities, in general.

To date, the main promising ways of developing commodity policies for agricultural producers are, in our opinion, the following:

1. Optimization of nomenclature and search of balance of volumes of separate types of commodity products.
2. Deepening of own processing of produced agricultural raw materials.
3. Solving the problem of storage of agricultural products of own production and formation of rational lots for efficient marketing in the market.

Paying attention to the first direction will allow to get rid of "extra" goods in the nomenclature of the company's products, the production of which reduces the overall profitability of its activities. In addition, the diversification of production of certain types of products will have a positive effect on the intensive expansion of the nomenclature of the enterprise, will increase its stability and will create guarantees for prolonging its presence on the market and ensuring profitable, efficient production and commercial activity.

As for the second and third directions of development of commodity policy, the volumes of added value created in the enterprise depend to a great extent on the depth of processing of agricultural raw materials, as well as the deprivation of the negative impact of seasonal price fluctuations. At the same time, introducing deeper processing and pre-sales preparation will allow to increase the financial results of the enterprise activity, while solving the problem of storage of products will allow to eliminate the influence of seasonal fluctuations of supply and demand, and thus maximize the profit of the manufacturer.

Management decisions in these areas of development of enterprise marketing policy should be based on a detailed analysis of marketing characteristics of the consumer market of the region, prospects of interaction of the company with counterparts-representatives of other regional markets, as well as careful control of the economic efficiency of the proposed measures.

It should be noted that the management of enterprise marketing involves the formation of a comprehensive system of strategic, tactical and operational planning of events, organization of their implementation, control over their implementation and audit of results and content of their implementation, which in turn form the marketing policy of the enterprise. In this case, the category of marketing policy is not limited to the implementation of optimal measures of activity in the field of marketing of products. It covers virtually all spheres of production and commercial activity of the enterprise, namely, sales activities, production activities, formulation of strategy in the field of goods and pricing, enterprise cost management, logistics management, personnel policy and other areas. At the same time, the key concept of managing an enterprise's marketing activity is to focus on the dynamics of the needs of the target consumer audience and the dynamics of the commodity

markets in which the enterprise operates.

The state policy of reforming the agrarian sector of the economy, which has been taking place in Ukraine since 1999, has caused both positive and negative consequences. The main of the latter are the decline of large-scale agrarian production, the deterioration of the general condition of the material and technical base of agricultural enterprises, the reduction of potential opportunities for efficient use of the capabilities of agricultural enterprises with the use of effective instruments of commodity markets infrastructure. First of all, the fact that during the ten years of development of the markets of agricultural raw materials, they have become one of the most developed and advanced in terms of the development of their structure. However, the policy pursued by all participants in these commodity markets is focused on maximizing profits in the short term. The latter not only benefits the development of direct commodity producer activity, but also effectively eliminates opportunities for expanded reproduction in the agricultural sector, as a consequence of the decline in profitability of the agrarian business. After all, the price of production is the main source of development of the enterprise and providing it with funds for the implementation of the reproduction process.

Therefore, it is advisable to focus on correcting the enterprise price and commodity policy when improving the management of the enterprise product marketing system, whose main task is profit maximization.

Consider the main characteristics of the current state and prospects for improving the implementation of marketing policy of the agricultural enterprise at the present stage. Based on the results of the analysis of alternative options for ensuring the sustainable development of the enterprise, we can propose three main directions of further development of production and commercial activity of the enterprise:

1. Increase in production of basic products.
2. Ensuring the sale of manufactured products at higher prices.
3. Vertical diversification of the product range.

These paths have some limitations and are not completely perfect. After all, the level of concentration of capital in the agricultural sector is not too high to oligopolize the agricultural market at the producer level. In addition, most businesses operate under the same conditions. The limitations of the implementation of the measures of the first direction are:

- limited area of economy;
- limited material and technical base;
- lack of funds for the introduction of intensive cultivation technologies;
- lack of funds for the purchase of high quality seed material, plant protection products and a modern full-fledged fertilizer complex, etc.

Limitations of the second direction of improvement of the enterprise marketing policy are:

- inherent in the raw material market characteristics of a market close in character to the market of oligopoly by the first wholesale intermediary;
- competitive situation on the local and regional market of primary agricultural raw materials;
- not enough large volumes of production of own production for independent operation at higher levels of the structure of the market of agricultural raw materials, etc.

The main limitation of the third direction, which is to deepen the processing of raw materials of its own production is only the need to attract investment resources in the process of organizing the specified production within the production structure of the enterprise.

The first two ways of optimizing the management of marketing activities are acceptable enough for the enterprise, because they are not associated with significant structural shifts in product policy, the enterprise will continue to work with long-developed goods, will not solve the personnel problems associated with the recruitment of new technological processes, will hardly change the specifics of their work with consumers and suppliers.

Thus, the most expedient ways of developing commodity policy of agricultural producers specializing in the production of grain products are intensive increase of production volumes, transition to production of three to five basic crops, as well as introduction of commercial measures

aimed at ensuring the sale of products for higher prices.

There is a wide range of market competition strategies already defined in the theory that can be integrated into a system of enterprise competitive strategies and viewed as a set of strategies aimed at adapting businesses to changes in competitive conditions and strengthening its long-term competitive position in the market. In particular, they distinguish a block of competitive advantage formation strategies (cost control strategies, differentiation strategies and focus strategies): a block of enterprise competitiveness strategies (commodity-market and resource-market strategies, technological strategy, social strategy, financial-investment strategies, organizational and management). strategies, etc.): a block of strategies for competitive behavior of enterprises in selected target markets (offensive, defense, and cooperative strategies). However, in our opinion, their adaptation to the activities of agricultural enterprises in full is not possible due to industry specificity.

The system of competitive marketing strategies of enterprises in theory should include strategies for the formation of competitive advantages, strategies for ensuring the competitiveness of enterprises and strategies for their competitive behavior. It should be noted that the main feature of the formation of these strategies for the conditions of activity of agricultural enterprises is the impossibility of their rapid and full implementation through a number of factors of organizational, economic and managerial nature.

In particular, with regard to the problems of the organizational part, the primary strategy of the enterprises is to ensure the fullest utilization of the existing production facilities of the enterprises. For years, agrarian and technological base has been formed in agrarian production, the updating of which is not possible for a factor of rapid response to changes in the market environment. That is, such a strategy of generating competitive advantages as a differentiation strategy, and the main production strategies to ensure the competitiveness of enterprises - commodity-market, resource-market and technological strategy - in most cases will not be able to be updated or applied at all to agrarian enterprises in the short term. It should also be noted that the main negative factor for increasing the competitiveness of agrarian enterprises is time, which is why the rapid response to the market situation is one of the most important and important tasks that they face.

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## 2.10. EVALUATION OF ECONOMIC PERFORMANCE OF FARMS IN UKRAINE USING THE RISE METHOD

Current processes of globalization necessitate the creation of a highly effective, competitive farms, capable to support the country's food security. The success of market transformations in the agrarian sector is largely determined by the potential of farming<sup>1</sup>. The most important step in creating a profitable, sustainable, efficiently functioning farm with a strong market position is the regular assessment of the farm and timely progress of a strategic development plan. Therefore, it is now very important to carry out a qualitative analysis of Ukrainian farms, with a comprehensive assessment of economic activity and factors leading to a change in the level of key indicators, since this will allow to identify vulnerable places of economic activity of farms and to substantiate the main components of the mechanism for their stabilization.

Agriculture is one of the main sources of currency revenues in the Ukraine<sup>2</sup>. The country entered the top 10 European nations where economy depends on the farmers. Agriculture occupies 10.43% of Ukraine's GDP, ranking 3<sup>rd</sup> just behind Albania (21.83%) and Moldova (13.8%) according to this indicator.

The evaluation of farms was carried out using the RISE- method, which is a computer method developed by the HAFL (Bern University of Applied Sciences, Institute of Agriculture, Forestry and Food Sciences). This method allows for a comprehensive assessment of agricultural production which is based on 10 parameters, that reflect the environmental, economic and social aspects of the farms. This method can also be used for monitoring purposes and allows visualization of sustainable development trends at agricultural and regional level<sup>3</sup>.

As of November 1 of 2015, 38850 farms were registered in Ukraine, which is 2.5 times more compared to 1991, where their number at the end of the year amounted to 14681 farms. The total aggregate area of these farms is equivalent to 4391.90 hectares where some of the largest portions could be found in Kirovograd, Odesa, Mykolayiv, Dnipropetrovsk, Kherson and Zaporozhye regions<sup>4</sup>.

The purpose of the study is to evaluate the economic performance of selected farms in North - Eastern region of Ukraine using the RISE method. The main attention is paid to the study of economic feasibility indicators and the existing farm management system.

In the course of this research, the following general methods were used:

- General scientific methods: analysis, synthesis, induction, deduction.
- Heuristic methods: questioning, interviewing<sup>5</sup>;
- Economic-logical methods: methods of general analysis (methods of comparison and grouping, methods of averages, graphic methods, methods of integrated assessment)<sup>6</sup>.
- Economic and mathematical methods: methods of correlation-regression links<sup>7</sup>.

As for the main tool of the analysis, the used RISE method which is a complex tool to assess different areas of farm sustainability. RISE users work in agricultural consultancy, education, in development projects and in raw material sourcing. The steps of a RISE analysis are goal and scope

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<sup>1</sup> Babich, M. (2007): Essence and features of classification of farms, Bulletin of agrarian science of the Black Sea region, Issue 3, T.1, pp. 87-92.

<sup>2</sup> [online] [access: date] <http://agravery.com/uk/posts/show/ukraina-v-vijsla-v-top-10-zaleznihi-vid-agrariiv-evropejskih-krain>

<sup>3</sup> [online] [access: date] <https://www.hafl.bfh.ch/en/research-consulting-services/agricultural-science/sustainability-and-ecosystems/sustainability-assessment/rise.html>

<sup>4</sup> [online] [access: date] <http://minagro.gov.ua/ministry?nid=22001>

<sup>5</sup> Eremenko, D. (2017): Methodical aspects of evaluation of the competitiveness of farms, Scientific Bulletin of the Mukachevo State University, Series Economics. Issue 1 (7): p. 81.

<sup>6</sup> Zbarsky, V., Kalchenko, S., Yeremenko, D. (2016): Optimization of the method of estimation of competitiveness of high-quality farms of family-labor type, Scientific Bulletin of Uzhgorod University, Series Economics. Issue 1 (47): T.2, p. 272.

<sup>7</sup> Zbarsky, V., Kalchenko, S., Yeremenko, D. (2016): Optimization of the method of estimation of competitiveness of high-quality farms of family-labor type, Scientific Bulletin of Uzhgorod University, Series Economics. Issue 1 (47): T.2, p. 272.

definition, farmer selection and contacting, data collection and interpretation, farmer feedback discussion and reporting.

The sustainability performance of farms in Ukraine was assessed and analyzed in two phases (Figure 1). In the first phase, the assessment process was prepared by training auditors, selecting farms, contacting farmers and entering available data in RISE. Fifteen consultants from Sumy National Agrarian University were trained as RISE 3.0 auditors by the tool developers from Switzerland. This training included a joint assessment and discussion of assessment procedures. RISE method is the transdisciplinary approach, in which stakeholders from farming practice (i.e., farmers, advisors and processing companies) and research collaborate, can help to address sustainability challenges. Farms out of two sectors (crops and livestock) were selected by SNAU experts.

Before the actual assessment, each farmer was contacted and asked to provide available data (i.e., farm accounts, financial report, crop rotation plan). These data were entered in RISE beforehand to reduce on-farm assessment time.

Finally, assessments of 21 farms were carried out and involved two farm visits, calculation and reporting. Each farm assessment started with a short farm tour. After this introduction, the questionnaire-based interview with the farmer was carried out by two auditors – agronomist and economist. In case a farmer did not have all data needed available at the moment of assessment, these data were emailed later to the auditor and entered in the RISE software.

When all data needed for the assessment were gathered, the outcomes were calculated in RISE, and a report was made. This report included an explanation given by the auditors on the outcomes and was discussed with the farmer during a second farm visit. Based on the outcomes of the tool and priorities of the farmer, a brief action plan for improvement was made.

Stages of evaluation of 21 farms in the North-Eastern region of Ukraine with RISE were as follows:

In the RISE analysis, the economic, environmental and social sustainability performance of agricultural production is captured and assessed along ten thematic axes. Each theme score is the arithmetic mean of several indicator scores.

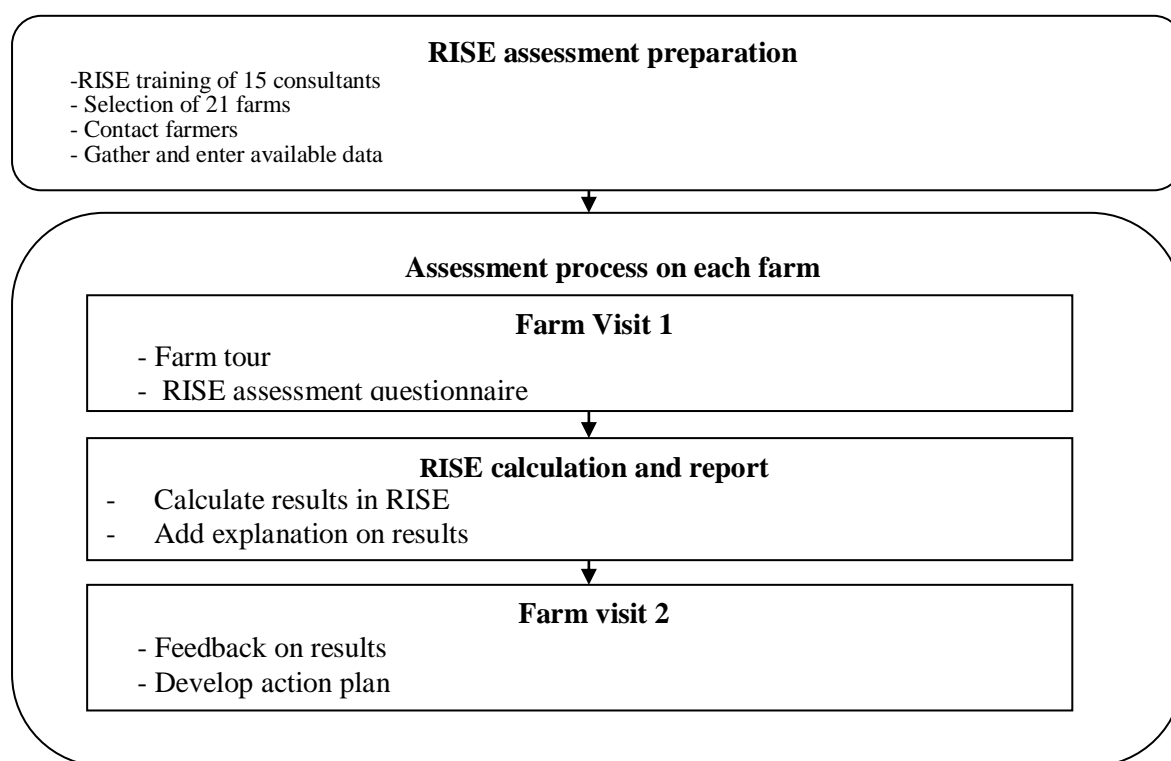
The sustainability analysis of an individual farm starts with contacting and informing the farmer. If he or she agrees to participate in the analysis, a schedule for the farmer interview is set. This interview usually takes three to four hours, including a short tour of farm and fields, and is the main source of information for the RISE analysis. The existing farm documentation is used to the greatest extent possible (“best available data”).

Data are entered online or offline into the RISE software, or recorded on a paper questionnaire and entered in the office. Data collection covers agricultural production at farm level during one year (calendar or agricultural year).

For some aspects, this scope of the analysis was extended temporally or spatially to better cover the sphere of impact of agricultural production. Parts of the questionnaire and of the calculation and valuation functions can be adapted to the regional or even the individual context of the farm. Once all data have been entered and checked for plausibility, the RISE indicator and theme scores can be calculated.

This was done through a sequence of calculations, partly using reference data from the RISE database. All scores are combined with a color code and range from 0 to 100, whereas 100 represents an optimal (fully sustainable production) and 0 an unacceptable situation. Some of the RISE valuation functions are regionally adapted at the beginning of a project; e.g. humid and arid climates are distinguished, and regional water scarcity is taken into account. Some of the reference values and weightings can be adapted by users as well. Thus the tradeoff between universal applicability and relevance under the conditions of the farm can be partly overcome.

RISE covers 10 themes divided into 50 sub-themes. The scores of the sub-themes ranges between 0 and 100 and is based on an aggregation of indicators. The online software calculates the scores based on a farm interview, data from farm accounts and references to regional and master data.



*Fig. 1. Stages of evaluation of 21 farms in the North-Eastern region of Ukraine using RISE 3.0.*  
Source: formed by the authors

*Table 1. Themes and indicators in RISE 3.0*

Theme	Indicators
1. Soil use	1.1 Soil management 1.2 Crop productivity 1.3 Soil organic matter 1.4 Soil reaction 1.5 Soil erosion 1.6 Soil compaction
2. Animal husbandry	2.1 Herd management 2.2 Livestock productivity 2.3 Opportunity for species-appropriate behavior 2.4 Living conditions 2.5 Animal health
3. Materials use and environmental protection	3.1 Material flows 3.2 Fertilization 3.3 Plant protection 3.4 Air pollution 3.5 Soil and water pollution
4. Water use	4.1 Water management 4.2 Water supply 4.3 Water use intensity
5 Energy and Climate	5.1 Energy management 5.2 Energy intensity of agricultural production 5.3 Greenhouse gas balance
6. Biodiversity	6.1 Biodiversity management 6.2 Ecological infrastructures

Theme	Indicators
	6.3 Distribution of ecological infrastructures 6.4 Intensity of agricultural production 6.5 Diversity of agricultural production
7. Working conditions	7.1 Personnel management 7.2 Working hours 7.3 Safety at work 7.4 Wage and income level
8. Quality of life	8.1 Occupation and Training 8.2 Financial situation 8.3 Social relations 8.4 Personal freedom and values 8.5 Health 8.6 Other areas of life
9. Economic viability	9.1 Liquidity 9.2 Profitability 9.3 Stability 9.4 Indebtedness 9.5 Livelihood security
10. Farm management	10.1 Business goals, strategy, implementation 10.2 Availability of information 10.3 Risk management 10.4 Resilient relationships

Source: RISE-program

The sustainability performance of each subtheme is based on an aggregation of various indicators. These indicators are normalized (i.e., converted to a 0–100 scale) differently for each subtheme and can include comparisons between farm and reference data. The score at the theme level is based on the average of the scores of the 4–7 subthemes included in each theme. Scores on theme and subtheme level range from 0–100.

According to RISE manual, a performance between 0 and 33 is considered problematic, while between 34 and 66 is critical and between 67 and 100 positive. RISE results are presented in a farm report, which includes the farm's sustainability polygon, a table with the theme and subtheme scores and an explanation of the calculation and scores. Based on this report, a farmer and auditor define the measures for improvement. The RISE software is available on a license and requires training<sup>1</sup>.

A certain amount of points (positive or negative) are given based on the answers of the farmer, farm worker and/or auditor to questions on farm management, activities and the on-farm situation (e.g., animal welfare conditions). This way, qualitative information is translated into a quantitative score.

#### *Box I. Example points-based subtheme: farm stability (90.2)*

The score on this subtheme is based on the average score on four questions:

1. What proportion of total sales is attributable to the activity with the highest sales turnover?
2. Has the farm at least two (potential) customers for each significant income source?
3. What is the state of the infrastructure for the main sources of income (>25% sales)?
4. Is the farm in a position to invest in maintains and expansion?

Each question can be answered with yes (100 points): partly (50 points) or no (0 points).

Source: formed by the authors of the RISE program

<sup>1</sup> Evelien M. de Olde, Frank W. Oudshoorn Eddie A. M. Bokkers , Anke Stubsgaard , Claus A. G. Sørensen Imke J. M. de Boer, (2016). Assessing the Sustainability Performance of Organic Farms in Denmark: Sustainability. P. 957 [online] [access: date] doi:10.3390/su8090957

The RISE Method consists of 40 subtopics grouped in 10 Themes. Of these subthemes, 19 subthemes are exclusively based on points allocated to certain measures, activities or situations on-farm. These subthemes are related to quality of life, farm management, animal husbandry, soil use, water use, nutrient flows and working conditions. For the remaining 21 subthemes, this type of data is combined with one or more of the other data types.

The RISE report consists of a farm profile, the sustainability polygon, which is a visualization of whole-farm sustainability, as well as comprehensive tables including intermediate values needed to better understand indicator and theme scores<sup>1</sup>.

Farms are an economic-legal form of entrepreneurship, an independent, equal economic entity of the organizational system of agricultural production engaged in the manufacture of commodity agricultural products, its sale or processing<sup>2</sup>.

The evaluation of farms in the Northeastern region of Ukraine is based on the results of the questionnaire of the RISE-method. The system of indicators for assessing the activity of farms can be conditionally divided into 10 groups that characterize various aspects, namely economic viability, farm management, land use, materials utilization and environmental protection, water use, energy and climate, biodiversity, working conditions, standard of living. Each group, in its turn, includes several indicators<sup>3</sup>. However, during analyzing farms we considered only the indicators of economic viability and management of the farm.

The farm must achieve economic goals, working within the appropriate environmental and social constraints. The purpose of the farm's activity is to ensure the short-term and long-term profitability of the economy, as well as the preservation or increase of labour productivity, for independent and stable development. This will guarantee the receipt of funds both for the development of the farm and provide all the necessary payments.

The following aspects of the economic viability of farms in the North-Eastern region of Ukraine are considered in this section:

- liquidity and profitability;
- stability and indebtedness;
- livelihood security.

Liquidity and profitability indicators related to the economic expediency of the activity of farms were analyzed (Table 1).

In order to preserve the confidentiality of the information of farms, the names of enterprises were indicated by letters of the English alphabet.

The assessment of liquidity characterizes the ability of the company at any time to pay off its obligations with the property that is on its balance sheet<sup>4</sup>. The essence of calculating the liquidity indicator by the RISE - method is the ratio between cash and available credit lines, which is averaged over weekly payments.

For example, 100 points = 40 weeks of the liquidity provision, 0 points = 0 weeks of the liquidity provision. Limits may vary depending on the region<sup>5</sup>.

From table 2 it can be seen that the minimum liquidity value is 25 points and maximum is 100 points. It is worth noting that liquidity is almost the same - 74 and 74 points respectively in different sectors, namely crops and livestock.

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<sup>1</sup> [online] [access: date]

[https://www.hafl.bfh.ch/fileadmin/docs/Forschung\\_Dienstleistungen/Agrarwissenschaften/Nachhaltigkeitsbeurteilung/RISE/What\\_is\\_RISE.pdf](https://www.hafl.bfh.ch/fileadmin/docs/Forschung_Dienstleistungen/Agrarwissenschaften/Nachhaltigkeitsbeurteilung/RISE/What_is_RISE.pdf)

<sup>2</sup> Gnatyshyn, L. (2012): Farmers in the Organizational Agricultural Production System, *Agrarian Economics*, T. 5, No. 1-2, pp. 19.

<sup>3</sup> [online] [access: date] <https://www.hafl.bfh.ch/en/research-consulting-services/agricultural-science/sustainability-and-ecosystems/sustainability-assessment/rise.html>

<sup>4</sup> Gangal, L. (2014): Analysis of the financial situation of agrarian enterprises of different organizational forms and ways of its improvement, *Innovative economy*, Issue 2, pp. 58-70.

<sup>5</sup> [online] [access: date] <https://www.hafl.bfh.ch/en/research-consulting-services/agricultural-science/sustainability-and-ecosystems/sustainability-assessment/rise.html>



The calculations showed that seven of the 21 farms have 40 weeks of liquidity reserve, eight farms have 30 weeks, and six - only 20 weeks of reserve liquidity. Farm "U", has 10 weeks of reserve liquidity. This is a cash reserve, ie a reserved portion of capital used for unexpected highly profitable investments, a liquidity reserve.

21 farms are able to pay wages to employees, pay suppliers, comply with financial obligations and pay interest on loans.

The main indicator of the effectiveness of any financial transaction is its profitability<sup>1</sup>. Let us analyze the profitability indicator of Ukrainian farms as a result of a questionnaire in June 2017.

This indicator is estimated by the ratio of operating cash flow to sales. The ratio of cash flow to sales by RISE method is estimated as follows: 20% = 100 points; 0% = 0 points<sup>2</sup>.

Considering profitability we can say that the values of the minimum and maximum correspond to liquidity values, as well as 25 and 100 and looking at two sectors, we can say that the profitability of livestock is higher by 13 points compared to crops and it is 82 points.

The analysis of data in Table 2 showed that 6 farms out of 21 have a profitability of 20%, 7 farms have 12% profitability, and others equal or less than 10%.

*Table 2. Indicators of financial results of Ukrainian farms as a result of a questionnaire in June 2017*

Indicators	Total AV	min	max	Crop (AV)	Livestock (AV)
Profitability	70	25	100	69	82
Liquidity	74	25	100	74	75

Source: Own research

We can conclude, that activities of the investigated farms are financially advantageous both in the short-term and in the long-term period. This suggests that the results of their activities allow them to fulfill their financial obligations, to invest and to receive profits that adequately compensates their equity invested in business.

#### *Stability, indebtedness, livelihood security*

In cases where farms have lost their ability to maintain optimal proportion in the development of their production, to adapt to changing environmental conditions, the introduction of an appropriate system to increase their financial and economic stability as an essential component of competitiveness in the process of realization of strategic development goals appears urgent. Among the problems that require urgent solutions, an analysis of financial stability becomes important. Practice has shown that the financial stability of farms depends to a large extent on the type of economic activity and the rational allocation of resources in fixed assets and working capital<sup>3</sup>.

The financial stability of the farm depends on the availability of financial resources. It reflects the balance of resources and sources of formation, income and expenditure, cash and commodity flows, is estimated on the basis of the ratio of own and attracted capital of the enterprise, the rate of accumulation of own funds as a result of economic activity, the ratio of long-term and current liabilities, the provision of material working capital by its own sources. Great importance for the stable financial provision of the farm have their own financial resources. The greater the share of own financial resources and the smaller the loans, the lower the financial risk<sup>4</sup>.

The farm is financially stable if it is able to function with profit, and that long-term production on farms is also ensured in the future.

<sup>1</sup> Gangal, L. (2014): Analysis of the financial situation of agrarian enterprises of different organizational forms and ways of its improvement, Innovative economy, Issue 2, pp. 58-70.

<sup>2</sup> [online] [access: date] <https://www.hafl.bfh.ch/en/research-consulting-services/agricultural-science/sustainability-and-ecosystems/sustainability-assessment/rise.html>

<sup>3</sup> [online] [access: date] [http://eprints.kname.edu.ua/22509/1/248-252\\_%D0%92%D0%BE%D0%BB%D0%BA%D0%BE%D0%B2%D0%B0\\_%D0%9D%D0%90.pdf](http://eprints.kname.edu.ua/22509/1/248-252_%D0%92%D0%BE%D0%BB%D0%BA%D0%BE%D0%B2%D0%B0_%D0%9D%D0%90.pdf)

<sup>4</sup> [online] [access: date] [http://eprints.kname.edu.ua/22509/1/248-252\\_%D0%92%D0%BE%D0%BB%D0%BA%D0%BE%D0%B2%D0%B0\\_%D0%9D%D0%90.pdf](http://eprints.kname.edu.ua/22509/1/248-252_%D0%92%D0%BE%D0%BB%D0%BA%D0%BE%D0%B2%D0%B0_%D0%9D%D0%90.pdf)

The financial condition of farms, the analysis of indicators of stability, indebtedness and the livelihood security were analyzed (Table 3).

*Table. 3. Indicators of financial condition of farms as a result of a questionnaire in June 2017*

Indicators	Total AV	min	max	Crop (AV)	Livestock (AV)
Stability	68	44	94	67	75
Indebtedness	66	0	100	64	83
Livelihood security	45	0	100	42	69

Source: Own research

The stability of the farm is estimated at 100 points, if it has the necessary infrastructure, sales markets in all key areas of its activities. In addition, the main source of income accounts for less than 20% of the total business income (no risk concentration): long-term access to land resources is guaranteed, and also have a high own-funds ratio<sup>1</sup>.

The minimum value of the stability from this study is 44 points and the maximum is 94 points. Crops sector by this indicator is 67 points, which is on 8 points less than the livestock sector. The average value of the indebtedness is 66 points, the minimum is 0 points, and the maximum - 100 points. Crops sector by this indicator is 64 points, and the livestock sector - 83 points. The minimum and maximum value of livelihood security corresponds to the indicators of indebtedness – 0 points and 100 points. The value of this indicator in the sector of crops is 42 points, and livestock sector - 69 points.

The analysis showed that the average stability value of the 21 investigated farms is 68 points, that is, the main source of income accounts for 13.6% of total business income. These farms have several alternative sources of income (or spare assets): support modern infrastructure, therefore, are completely independent of market price trends or individual customers. This indicator is quite positive for farms in the North-East region of Ukraine, and it speaks about the stability of their management.

Under the RISE program, farm debt is calculated as the ratio of borrowed funds and equity. This allows to calculate the number of potentially needed years, for the full repayment of the debts of the farm with its current cash flow. Also, this program calculates the relation between net income and service of short-term debt, that is, the ratio between the obligatory debt service (interest and compulsory depreciation) and cash flow. This ratio shows the percentage of cash flow that is currently used to repay debts and whether it is possible to take short-term loans for the period of unfavorable conditions on the market or for the purpose of investment.

According to this program, the data of two section is calculated as the average of two components at the same time, 100 points mean that the farm will need 5 years to repay its debts from the operational cash flow.

The relation between net income and debt servicing shows that 0% of the cash flow used to service the debt is equal to 100 points, with 50% is equal to 67 points and 100% is equal to 0 points<sup>2</sup>.

Based on the above, we can assert that about 50% of net income goes to debt servicing, since the average for the region under study in as a result of a questionnaire in June 2017, this indicator is 66 points. In general, the level of indebtedness of investigated farms is not problematic and is consistent with their financial resources.

<sup>1</sup> [online] [access: date] <https://www.hafl.bfh.ch/en/research-consulting-services/agricultural-science/sustainability-and-ecosystems/sustainability-assessment/rise.html>

<sup>2</sup> [online] [access: date] <https://www.hafl.bfh.ch/en/research-consulting-services/agricultural-science/sustainability-and-ecosystems/sustainability-assessment/rise.html>

The safety of the source of income is calculated as the relation between the private expense and the adjusted subsistence minimum. The subsistence minimum is adjusted according to the size of the farmer's family. Private expenses for family members who do not receive a salary (farmer's family) must clearly exceed the subsistence minimum. At the same time, the income of the farm is at least twice the poverty line and this mean 100 points<sup>1</sup>.

Since the average value of this indicator is 45 points, it can be concluded that farms are almost on the brink of poverty. Consequently, the income of these farms is insufficient to ensure their economic well-being.

Farm management research involves regulating the component of sustainable development in accordance with the main guidelines of the SAFA (Sustainability Assessment of Food and Agriculture Systems) . This is less formalized than for other RISE groups. The aim is to identify ways to improve the management of a particular farms.

The foreign economic sphere is the same in a given country, and the economic stability and efficiency of any agribusiness economy depends on the professionalism of their manager or managers<sup>2</sup>.

It is possible to start agricultural activity using traditional methods, even in the long term. However, changes are necessary if, against the backdrop of insufficient quality of the management process, there are obvious issues of unresolved issues. Wherever this occurs, it is necessary to change the management strategy of the economy by implementing measures that will contribute to the stability of management systems, processes and culture.

Balanced farm management pursues goals and strategies that are consistent with the personal values of the parties concerned and take into account:

- natural limitation animals, the environment, finance and society;
- access to the knowledge necessary for making informed decisions;
- internal and external risks, which will allow timely preventive measures, as well as productive, safe and profitable use of available resources;
- a stable relationship, guaranteeing respect and equity in cooperation with both employees of the economy, and with its partners or shareholders.

By exploring the state of farm management as a result of a questionnaire in June 2017 (Table 4): we analyzed their business goals.

*Table 4. Indicators of management of the farms in the Northeast region of Ukraine*

Indicators	Total AV	min	max	Crop (AV)	Livestock (AV)
Business goals	73	54	81	72	74
Availability of information	72	40	100	72	67
Risk management	53	28	100	51	79
Resilient relationship	78	50	92	77	92

Source: Own research

This indicator covers both rational (planning and forecasting) and subjective (values) aspects of the process of strategic development carried out by the farmer. 100 points describe the situation when the farmer has well-designed goals and relevant strategies for the development of the economy, and systematically implements them. These aspects are assessed as a farmer (satisfaction with how he / she manages the enterprise) and an agent of the agricultural consulting service (how well the strategy is thoroughly and well thought out and how it is implemented). The strategy is also

<sup>1</sup> [online] [access: date] <https://www.hafl.bfh.ch/en/research-consulting-services/agricultural-science/sustainability-and-ecosystems/sustainability-assessment/rise.html>

<sup>2</sup> Melnyk, L. (2009): Yield and profitability of farms in Ukraine, Economy of agroindustrial complex, AgroSvit, Issue 9, pp. 2-6.

evaluated from the point of view of how comprehensive it is, i.e. whether social, environmental and economic aspects are taken into account<sup>1</sup>.

The minimum value of the business goals indicator is 54 points and the maximum is 81 points. In the crop sector, this indicator is 72 which is 2 points less than that of indicator of livestock sector. The average indicator of information availability is 72 points, with 40 as minimum and 100 points as maximum. There is a slight difference between the indicators of sectors of crops and livestock - 72 and 67 points, respectively.

The greatest difference in risk management indicators is observed between the sectors of crops and livestock and is 51 and 79 points respectively. The minimum value of the risk management indicator is 28 points. The indicator of resilient relationship in the crops sector is 77 points and in the livestock sector is 92 points.

Our study have shown that on the average, farms in the study region garnered 73 points for the development and maintenance of business goals. This means that farmers devote enough attention to the development of business goals and implement them sufficiently.

By assessing whether farmers have access to all necessary and reliable information and planning tools that are necessary for systematic management, and if they are truly used when necessary, we can say that this indicator is on the average of 72 points in the same region.

It should be noted that 100 points is assessed when a farmer has access to all necessary information and reliable planning tools, uses them if necessary for the purpose of balanced management of the farm<sup>2</sup>.

Consequently, we can argue that if necessary, the people responsible for managing the farming sector have access to the necessary and reliable information as well as reliable planning tools for systematic and professional management of the farm.

The indicator of the risk management system characterizes how people responsible for managing the economy overcome the risks that threaten the sources of its profits. An assessment is made of what freedom of action management has within the boundaries of the farms, especially taking into account not only the prevention of risks, but also the minimization of the negative effects of any unwanted phenomena.

100 points - if all the risks that threaten the sources of income of the economy are known and the necessary measures are taken to protect them from them<sup>3</sup>.

The study showed that only three farms are 100% capable of managing risks. The average for the region is 53 points, indicating that those responsible for managing these farms are not well aware of the risks and interrelationships that could threaten to their existence. All necessary and accessible measures should be taken to minimize these risks.

The indicator of the risk management system characterizes how people responsible for managing the economy overcome the risks that threaten the sources of its profits. An assessment is made of what freedom of action management has within the boundaries of the farms, especially taking into account not only the prevention of risks, but also the minimization of the negative effects of any unwanted phenomena. 100 points - if all the risks that threaten the sources of income of the economy are known and the necessary measures are taken to protect them from them. The study showed that only three farms are 100% capable of managing risks. The average for the region is 53 points, indicating that those responsible for managing these farms are not well aware of the risks and interrelationships that could threaten to their existence. All necessary and accessible measures should be taken to minimize these risks.

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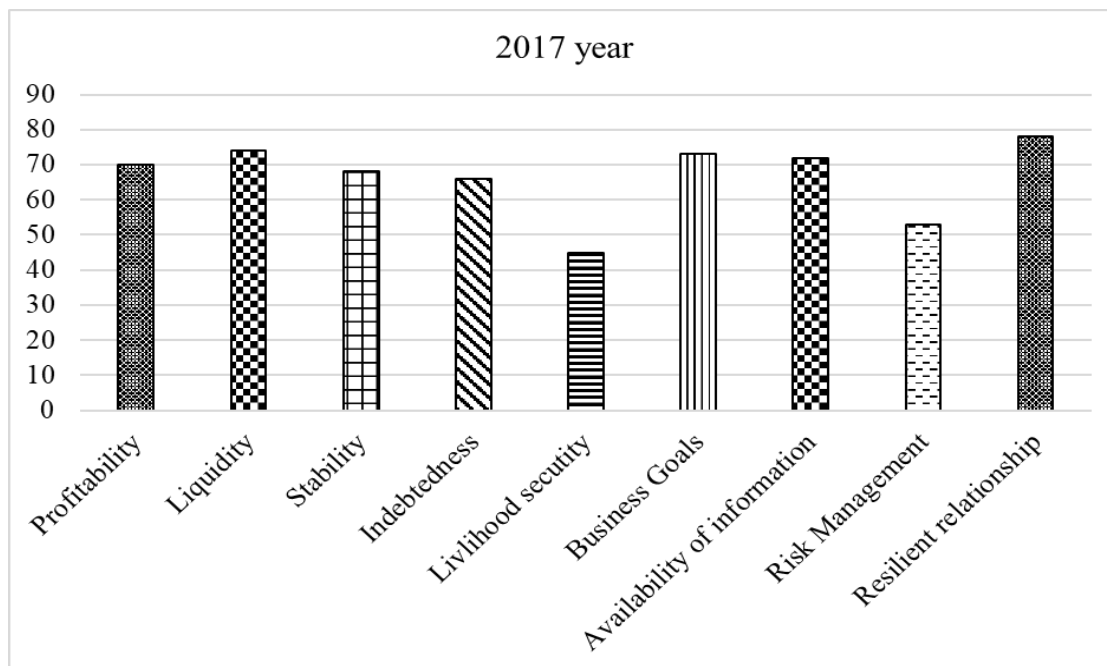
<sup>1</sup> [online] [access: date] <https://www.hafl.bfh.ch/en/research-consulting-services/agricultural-science/sustainability-and-ecosystems/sustainability-assessment/rise.html>

<sup>2</sup> [online] [access: date] <https://www.hafl.bfh.ch/en/research-consulting-services/agricultural-science/sustainability-and-ecosystems/sustainability-assessment/rise.html>

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The analysis and systematization of the obtained results concerning the state of economic expediency and the state of management of farms allow us to clearly consider more the economic condition of the investigated farms in the North-Eastern region of Ukraine.

Indicators with highest amount of points are resilient relationships, liquidity and business goals indicators. On the other hand, livelihood security and risk management got the lowest points but this does not prevent, at the moment, the functioning of farms. The indicators of stability and indebtedness are almost same. Over time, these indicators may deteriorate and lead to losses if they fail to make appropriate decisions regarding strategic planning on farmed farms.



*Fig. 1.* The state of economic viability and management of farms by the region average in 2017, points

Source: Own research

Functional characteristics, in particular, the level of technical security, the application of technology, and the regularity of processing agricultural products are on low level.

In our opinion, the growth (development) strategy of the farms would be most effective, reflecting intention to increase sales, profits, investments, diversify production, conduct and implement the results of research activities, implement investment projects; Improve the qualitative composition of employees, promote qualifications, material incentives.

As a result of the assessment, 21 farms were identified, the problem sectors of the farms were identified and a short plan of action was developed to improve them. There are no problems with the payment of salaries or the fulfillment of financial obligations. 21 It can be concluded that the activities of the studied farms are financially beneficial both in the short and long term. This suggests that the results of their activities allow them to fulfill their financial obligations, to invest and make profits, which adequately compensate for their capital invested in the business. The study showed that only three farms are 100% capable of managing risks. The regional average is 53 points, which indicates that those responsible for managing these farms are poorly aware of the risks and interrelations that may threaten their existence. All necessary and accessible measures should be taken to minimize these risks.

We propose to use growth (development) strategy for farming, since it is this strategy that will be most effective, reflecting the intention to increase sales, profits, investments, diversify production, conduct and implement research results, implement investment projects, and also improve the quality of staff, increase their qualification.

In our study, the problem sectors of the farms were identified and suggested the most effective ways of overcoming them. The estimation of the 21 farms in Ukraine was evaluated using RISE 3.0. The study found that the level of safety of the source of income and the risk management system are low. Over time, these indicators may even deteriorate and lead to loss-making farms if not properly addressed and take appropriate decisions. It was also found out that the level of technical security, the application of technology and the regularity of processing agricultural products are on low level.

The problem of updating and developing the material and technical base of agricultural production are multi-vectored. Its solution is possible only on the integrated basis of coordinated actions of the agrarian and industrial sectors of the national economy.

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## 2.11. ASSESSMENT OF THE EFFICIENCY OF STRATEGIC BANK MANAGEMENT: THEORETICAL AND METHODOLOGICAL ASPECTS

The methodology for measuring and evaluating the effectiveness of strategic bank management is largely driven by a theoretical position and a specific system of views, both in terms of understanding the concept of "efficiency" (ambiguous because of the difference between the criteria for evaluating efficiency) and management approaches.

Thus, modern scholars consider the following criteria for assessing the effectiveness of organizations as the degree of resource use; quality of system elements; performance (goal achievement); the ability to adapt; competitiveness; development; stability; organization; productivity; innovation, etc. At the same time, the most commonly used criterion for evaluating efficiency is the degree of use of resources or costs to achieve results, which is a generic characteristic, which includes such criteria as productivity, economy, optimality, and rational use of resources. The profitability criterion can also be considered as a component of the level of resource use (cost) because it reflects the result of the entity's functioning. An efficiency assessment approach based on resource utilization is used in single-criteria approaches where the content of efficiency is treated by purely economic metrics.

The process of evolution of the concept of "efficiency", which occurred due to the change in the meaning of the concept of "result" or "economic effect", as well as understanding the heterogeneity of costs to achieve this effect, contributed to the emergence of the concept of efficiency beyond purely economic boundaries and the emergence of multicriteria approaches to the definition and evaluation of efficiency. The modern scientists determine effectiveness as organizational, social, political and other factors. This process has led to a complication of the criterion basis for determining performance, which remains debatable. Specifically, the selection and use of specific criteria for evaluating performance depends on the stages of development or life cycle of the organization; time (short, medium, long); ways of expression (quantitative, qualitative); number of components (criteria) (one criterion (monocriteria), more than one criterion (multicriteria)); economic boundaries.

Since efficiency is a complex, multilevel and multidimensional characteristic, which is determined by different criteria, it is considered appropriate to take them into account when differentiating the types of efficiency (Fig. 1)<sup>1</sup>, which are interrelated by changing the intense and extensive environmental factors that cause them.

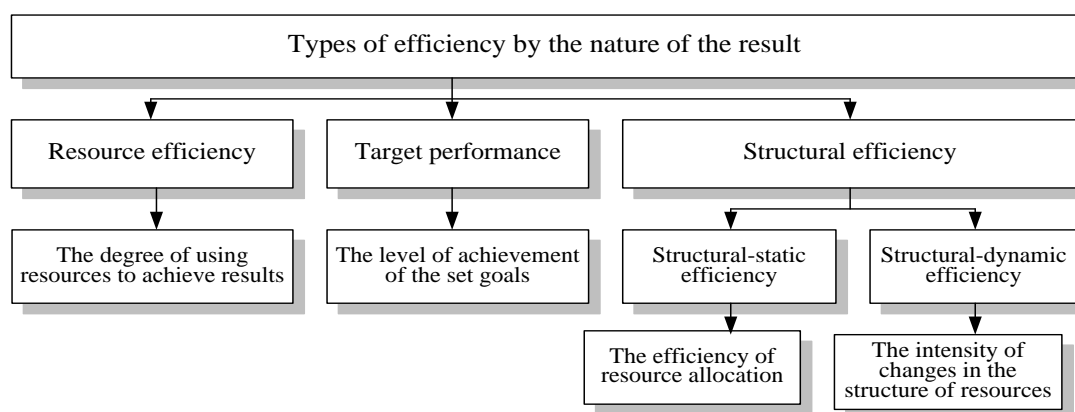


Fig.1. Types of efficiency by the nature of the result

So, the ratio of the effect and the resources spent on achieving it determine the level of resource efficiency. Resource efficiency characterizes the degree of use of resources to achieve the

<sup>1</sup> Rats, O. M. (2008): Vznachennya sutnosti ponyattya "efektivnist' funktsionuvannya pidpriemstva" [Defining the essence of the concept of "efficiency of functioning of the enterprise"]. Ekonomichnii prostir - Economic space, No 15, pp. 275-285.

results of operation and shows the productivity, economy, optimality, rationality of their use. The defining characteristic of resource efficiency is the ratio of effect and cost, which is determined by the profitability indicators of its individual functional subsystems and the organization as a whole. The performance of an economic entity depends not only on the extent of resources spent, but also on the achievement of the set goals. Goal performance reflects your ability to reach or the level of achievement of the goals.

Achieving a certain level of sustainability of functioning in the form of a positive result that allows to neutralize the negative impact of factors of the external and internal environment and further ensure economic development, allows to distinguish this kind of efficiency as "structural efficiency". The definition of this type of performance is due to the fact that stability in the most general sense is an external manifestation of the internal structure of the object. Economic stability is determined by the level of sustainability of the elements that form the structure of the organization, and therefore the kind of efficiency that characterizes the presence, balance, coherence of individual elements, the optimal integration of structural elements, their acquisition of new features, determine the structural efficiency. Since the stability of the organization contains static and dynamic components that characterize the equilibrium of the state and the quality of functioning, therefore, structural efficiency is determined by its static component, that is, the efficiency of resource allocation and dynamic component, that is, qualitative changes in the functioning of the organization. With this in mind, to clearly differentiate the components of structural efficiency of an organization, its types are defined as structural-static efficiency and structural-dynamic efficiency. This distribution of structural efficiency allows us to determine efficiency not only from the point of view of possible equilibrium and the combination of resources in space, but also from the standpoint of the possible development of constituents of the organization, that is, changes of states over time.

Taking into account the considered criteria for evaluating efficiency and its types, and also taking into account that the efficiency of management reflects the performance of managed and managing systems<sup>1</sup> (in particular, shows to what extent the managing body realizes the goals, achieves the planned results, ie reflects the trajectory of the system movement to its goals), within the scope of this study, it is determined the feasibility of assessing the effectiveness of strategic management by the criterion of achieving the target parameters, ie considered in the context of goal effectiveness. In turn, the Balanced Scorecard (BSC) is envisaged for assessing the effectiveness of strategic management.

The authors of the BSC concept are American researchers D. Norton and R. Kaplan<sup>2</sup>, and its provisions are reflected in the evaluation systems in the work of many other researchers, including C. Adams and P. Roberts<sup>3</sup>, A. Atkinson and M. Epstein<sup>4</sup>, L. Maisel<sup>5</sup>, H. Rampersad<sup>6</sup> and other scholars. The basic ideas behind the BSC are, first, through a balanced combination of financial and non-financial indicators (KPIs), grouped across four subsystems (finance, customers, internal business processes, staff development and training) to conduct a comprehensive assessment of the bank's activities; second, to formulate strategic goals that are linked by cause and effect, based on the results of the assessment; third, to identify and formalize the overall development strategy, monitor the implementation of the strategy and evaluate its effectiveness. On this basis, BSC can be considered as an analytical system separately, and as a technology of strategic management in

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<sup>1</sup> Gibson, J.; et al (2012): *Organizations - Behavior, Structure, Processes*. Mc McGraw-Hill, 662 p.

<sup>2</sup> Kaplan, R. S.; Norton, D. P. (1992): *The Balanced Scorecard – Measures then drive Performance*. Harvard Business Review, Vol. 70, No 1, pp. 71-79.

<sup>3</sup> Adams, C.; Roberts, P. (1993): *You Are What You Measure*. Manufacturing Europe, Sterling Publications Ltd, pp. 504-507.

<sup>4</sup> Atkinson, A.; Epstein, M. (2000): *Measure for measure: Realizing the power of the balanced scorecard*. CMA Management, pp. 23-28.

<sup>5</sup> Maisel, L. S. (1992): *Performance Management: The Balanced Scorecard Approach*. Journal of Cost Management, Vol. 6, No. 2, pp. 47-52.

<sup>6</sup> Rampersad, H.K. (2003): *Total Performance Scorecard; Redefining Management to Achieve Performance with Integrity*, Butterworth-Heinemann Business Books, Massachusetts, 330 p.



general, which covers all its stages through (Fig.2).

At the first stage of strategic management of the bank to assess its activities it is formed indicators taking into account the relevant criteria and requirements for building a BSC, which in turn will allow to determine the further strategic direction of the bank's operation in the future (overall strategy).

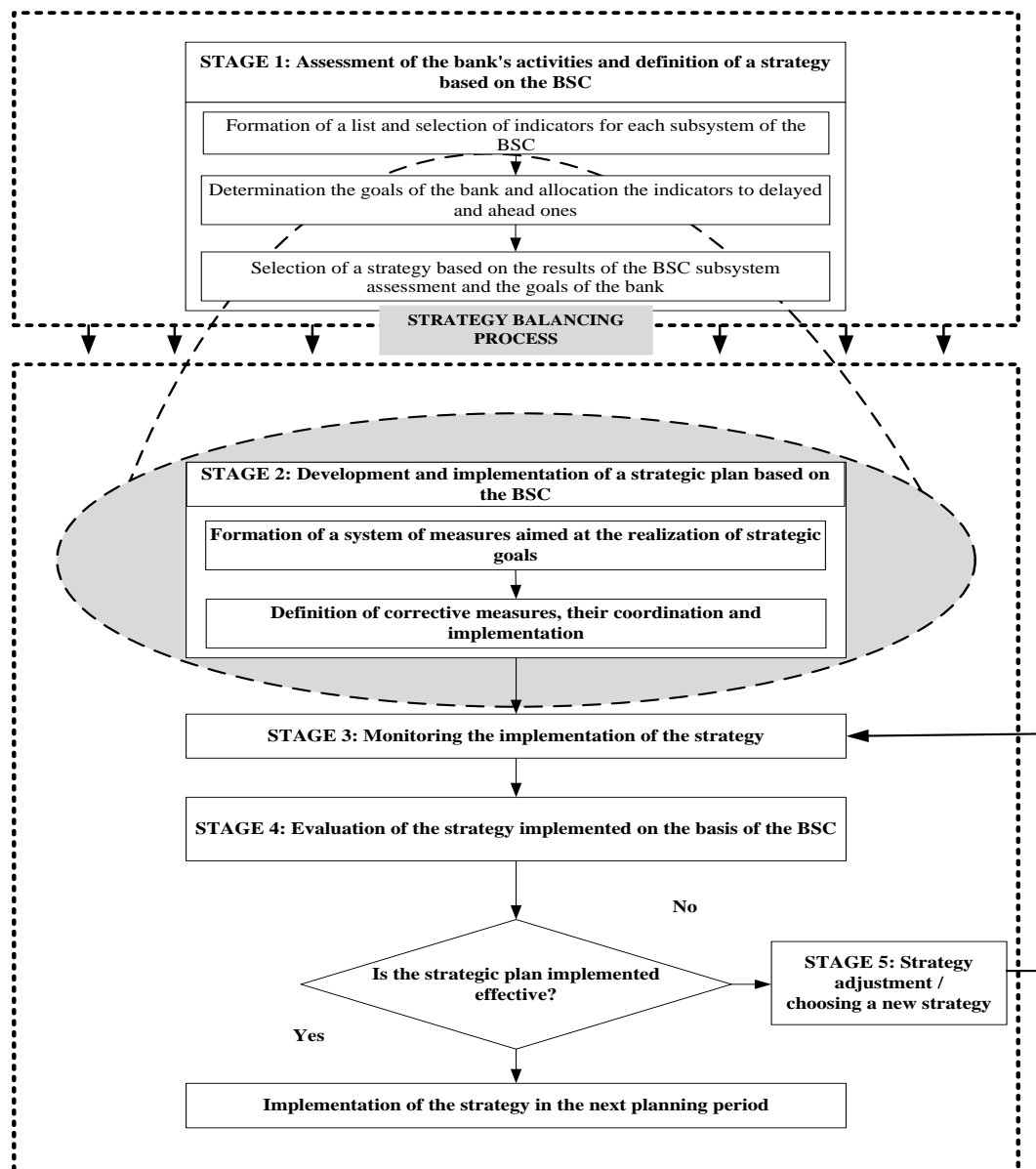


Fig.2. The scheme of stages of strategic management of the bank on the basis BSC

The second stage is the development and implementation of the strategic plan. The priority is to develop a system of strategic measures aimed at achieving the goals, which will be determined on the basis of the BSC analysis. It should be emphasized that this technology does not cover a large number of aspects of the environment. This necessitates the use of additional tools to analyze the bank's position in the market and its competitive advantages. It should be borne in mind that the assessment of the BSC subsystems will help to identify problematic aspects in the functioning of the bank. To overcome them, it is necessary to identify the factors that provoked the emergence of identified problems. Therefore, in order to increase the effectiveness of the BSC-based strategy implementation, it is considered necessary to introduce corrective measures within the two identified areas and to coordinate them.

The third and fourth stages involve monitoring the implementation of the strategy and evaluating its effectiveness.

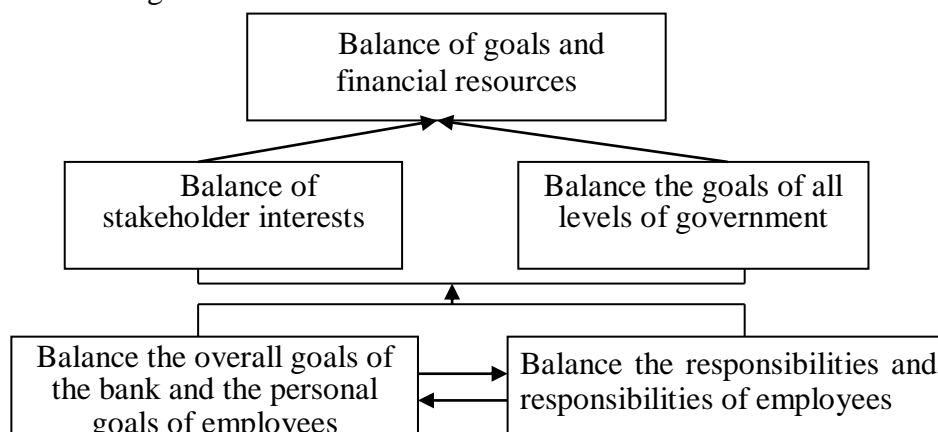
If the implemented strategic plan ensures the efficient functioning of the bank, it is advisable to use it for implementation in the next planning period. Otherwise, there are two possible developments: choosing a new strategy or adjusting an existing one (Stage 5).

In the context of increased volatility of the environment in which modern banks operate, in most cases there is a need to adjust the implemented development strategy. This is due to the rapidly changing processes taking place, changing customer needs, increasing competition in the banking market, which in turn necessitates a reorientation of operational priorities and the introduction of corrective measures (implementation of new policies, programs or projects). The strategy is adjusted as long as the adjusted option does not satisfy all the requirements. It is understood that this procedure is iterative and repeated periodically.

As the results of evaluating the effectiveness of strategy implementation allow us to determine the further course of action, adjust the existing and form a new strategy, the implementation of the presented stages of strategic management of the bank based on BSC is cyclical.

To ensure the efficiency and quality of implementation of BSC in the practical activities of the bank at the stage of goal setting (carried out on the basis of the results of evaluation of activities on the BSC subsystems) and implementation of its overall development strategy, it is proposed to comply with the criteria of its balance (balance of goals and financial resources, interests of stakeholders, between goals of all levels of management, general goals of the bank and personal goals of employees, their responsibilities and responsibilities)<sup>1</sup>, which will ensure the harmonization of atheistic goals and measures to achieve them.

It should be noted that among the established criteria for evaluating the balance of the bank's development strategy, the criterion for balancing the goals and financial resources of the bank becomes priority. This is due to the fact that the efficiency of using the financial resources of the bank in the context of managing its financial activities is one of the main tasks as an intermediary in the financial market. Therefore, the other criteria considered are those that directly cover organizational aspects (balance of goals at all levels of bank management), personnel management (balance of general goals of the bank and personal goals of employees, their responsibilities and responsibilities) and interaction with stakeholders (balance of interests of stakeholders), are in this case factors that directly or indirectly affect the balance of goals and financial resources of the bank. However, in addition to influencing this criterion of the other four, it is also necessary to note that there are links between the individual criteria for determining the balance of the bank's strategy, which are presented in Fig. 3.



*Fig.3.*The relationship between the proposed criteria for determining the balance of the overall development strategy of the bank

The relationship between the proposed criteria for balancing the bank's strategy can be explained as follows. The criteria related to the management of the bank's personnel, namely the

<sup>1</sup> Kolodiziev, O.M.; Bezrodna, O.S. (2012): Vznachennya kriteriyiv zbalansovanosti strategiyi rozvitku banku [Determination of balancing criteria the bank's development strategy]. Bankivska sprava - Banking, Vol. 5, pp.3-12.

balance of the general goals of the bank and the personal goals of the employees, their duties and responsibilities, are interrelated. Consistency and coherence between the overall objectives and goals of the bank employees enhances their satisfaction with working conditions. This, in turn, will contribute to honest liability in the framework of their assigned responsibilities. On the other hand, the balance of duties and responsibilities of employees enhances the quality of work and ensures the fulfillment of the tasks assigned to them, which are aimed at achieving the overall goals of the bank and its overall performance. This will provide material incentives for staff and thus help balance the overall goals of the bank and its employees. As the Bank's staff is one of its stakeholders, the fulfillment of the criteria considered has a significant impact on the satisfaction of its interests. The effectiveness of staffing also ensures that the goals of all levels of management are balanced, because it is the employees who fulfill the tasks aimed at achieving the strategic goals. In turn, the coherence of the goals of all levels of management makes it possible to optimally allocate financial resources in the respective areas. The link between the criteria of “balance of stakeholder interests” and “balance of goals and financial resources of the bank” is conditioned by the fact that financial resources are formed to a greater extent at the expense of attracted funds of clients of the bank and borrowed from other financial institutions. Therefore, taking into account their interests in the process of forming strategic goals is an important task of the bank and will help to expand its resource base. This, in turn, will provide a sufficient level of financial resources to meet the stated strategic goals.

Thus, BSC can be defined as a powerful technology of strategic management and has the following positive qualities:

- 1) it provides the bank management with complete information about the financial activities of the bank and the factors that influence it;
- 2) it promotes concentration of efforts on strategically important areas of activity of the bank;
- 3) it provides broad, training-oriented communication at all levels of bank management and facilitates involvement of all employees in strategy implementation;
- 4) it allows to check the current strategy for completeness, consistency and relevance;
- 5) it is aimed at optimizing banking business processes and innovation;
- 6) it provides strategic efficiency and growth of the Bank's performance;
- 7) it successfully integrates with the controlling system and integrates management methods aimed at increasing the value of banking business;
- 8) it allows forecasting of problems and timely response to risks.

Considering the content of the presented stages of strategic management of the bank using BSC (Fig. 2), it is proposed to evaluate the effectiveness of management in two directions. The first area involves evaluating the effectiveness of implementing the overall development strategy (by generalizing information to determine the approximation of the actual values of financial and non-financial performance of the bank to the desired target priorities). The second direction is to evaluate the balance of the implemented strategy. Accordingly, the methodology for assessing the effectiveness of strategic management of the bank includes three blocks: within the first and second blocks, quantitative and qualitative evaluation is conducted in the identified relevant areas, within the third block summarizes the results of evaluation and forming an overall conclusion about the effectiveness of strategic management of the bank.

Within the first block of the proposed methodology for assessing the effectiveness of strategic bank management, it is envisaged: first, to construct a generic measure of the effectiveness of implementing the overall strategy of the bank's development by converting the transformation functions (desirability functions) of financial and non-financial indicators that are combined within the BSC subsystems; second, providing a qualitative interpretation of the quantitative assessment using the Harrington verbal-numerical scale.

It is advisable to consider proposals for the use of conversion functions for signs with two-sided (symmetric or asymmetric) and one-sided change tendencies (formulas 1-5) in order to construct a generic measure of measuring the effectiveness of the Bank's development strategy

implementation<sup>1 2</sup>. Thus, for two-way asymmetric tendencies of development of a feature of the system, the following transformation functions are used:

$$y_{ij} = e^{-3\left(\frac{x_{ij} - a_i}{b_i - a_i}\right)^2}, \quad x_{ij} \leq a_i, b_i < a_i \quad (1)$$

$$y_{ij} = e^{-3\left(\frac{x_{ij} - a_i}{c_i - a_i}\right)^2}, \quad x_{ij} \geq a_i, c_i > a_i, \quad (2)$$

$a_i, b_i, c_i$  – точки phase changes:  $a_i$  - the best (desired) value of  $x_{ij}$  at which the conversion function reaches the highest value 1 (100 %);

$b_i, c_i$  ( $b_i < c_i$ ) – unsatisfactory value of  $x_{ij}$  (on the other side of the best) at which the conversion function acquires a value of no more than 0,05 (5 %).

Given the symmetric tendencies of the development of features, the transformation function becomes 1 (100%) at  $a_i = \frac{b_i + c_i}{2}$ . The look of the feature is simplified:

$$y_{ij} = e^{-3\left(\frac{x_{ij} - a_i}{b_i - a_i}\right)^2} \quad (3)$$

or (equivalent):

$$y_{ij} = e^{-3\left(\frac{x_{ij} - a_i}{c_i - a_i}\right)^2} \quad (4)$$

For unilateral types of character development in the works of V. S. Ponomarenko and L. M. Malyarets, monotone functions of transformation of the type of logistic function are recommended:

$$y_{ij} = \frac{1}{1 + e^{\frac{x_{ij} - p_i}{q_i - p_i}}}, \quad (5)$$

$q_i$  – the value of  $x_{ij}$  at which the conversion function acquires a value of not less than 0,95 (95 %);  
 $p_i$  – the value of the indicator at which the conversion function acquires value 0,5 (50 %).

Using the above formulas (depending on the trends of changes of the analyzed characteristics), the indicators within the BSC subsystems are converted to a single numerical scale (from 0 to 1) and a generic indicator of measuring the efficiency of the implementation of the overall development strategy of the bank is formed. In accordance with the logic of the methodology developed, the calculated value of the corresponding generalized indicator is distinguished as follows: [0; 0.37] is a low level, (0.37; 0.63] is an average level and (0.63; 1] is a high level of efficiency of implementation of the Bank's overall development strategy, respectively.

The second block of the proposed methodology for assessing the effectiveness of strategic bank management it is determined the balance of the overall strategy of the bank's development. To solve this problem, the application of G. Rush model, which allows to evaluate the adherence to the criteria on the basis of a dichotomous scale, in which the dimension is represented by two possible states – 0 and 1<sup>3</sup>.

The assessment of the balance of the overall development strategy of the bank on the basis of defined criteria (Fig. 3) is based on the expert survey of the heads of functional units of the bank, who participated in the formation and implementation of the strategic plan. The results of

<sup>1</sup> Ponomarenko, V. S.; Malyarets, L. M. (2009): Analiz danih u doslidzhennyah socialno-ekonomichnih sistem [Data analysis in socio-economic systems studies], Kharkiv, «INZHEK», 432 p.

<sup>2</sup> Ponomarenko, V. S.; Malyarets, L. M. (2009): Bagatovimirnij analiz socialno-ekonomichnih sistem [Multivariate analysis of socio-economic systems], Kharkiv, HNEU, 384 p.

<sup>3</sup> Dubina, I. N. (2006): Matematicheskie osnovy jempiricheskikh social'no-jekonomicheskikh issledovanij [Mathematical foundations of empirical social and economic research], Barnaul: Alt. un-ta, 263 p.

evaluating the balance of the bank's strategy depend on the number of positive reviews (responses) of experts on the proposed criteria and their total number. Since the positive response of the respondent (yes answer) is coded as 1, and the negative (no answer) as 0, larger values for the respondent on the Rush scale will correspond to his more positive (favorable) attitude towards the phenomenon (object) under study. The unit of the Rush scale is the logit:

$$D = \ln\left(\frac{P}{1-P}\right), \quad (6)$$

P – frequency or likelihood of a positive response (defined as the ratio of the total number of positive reviews by criterion to their maximum number).

When analyzing the results obtained, it should be borne in mind that a score of 0 logit indicates that only 50% of experts gave a positive response, and a value of 2.94 logit – as 95% positive and 5% negative. Thus, the interpretation of the results according to the model of Rush involves determining the levels of balance of the overall development strategy of the bank: low level –  $D \in [0; 1.1]$ ; middle level –  $D \in [1.11; 2.19]$ ; high level –  $D \in [2.2; 2.94]$ .

At the last final stage (the third block) of the approach to assessing the effectiveness of strategic bank management, the results of certain qualitative levels of implementation efficiency and balance of the overall development strategy of the bank are synthesized. As a result of this stage, it is possible to conclude on the effectiveness of the strategic management of the bank, to provide recommendations for its improvement and to determine further prospects and priorities of the strategic development of the bank.

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## **Part 3. INNOVATIVE TRENDS OF MODERN ORGANIZATIONS DEVELOPMENT**

### **3.1. AGROTOURISM AS A TOOL OF KHERSON REGION AGRICULTURAL UNITS DIVERSIFICATION**

In the conditions of active integration of agricultural sector enterprises into the market environment, agroformations require the existing industries to be brought up to a qualitatively new level of competitiveness, to ensure high standards of the exported products, as well as to develop new areas of activity that will ensure a high level of profitability, stabilize the financial condition of the business subjects and promote the elimination of seasonal production problems. The European experience of agrarian sector development shows the effectiveness of agricultural production as a tool for their competitive development. This is due to the relevance of the selected topic of research.

In order to generate profit, agricultural formations are engaged in the production and sale of agricultural products. However, agrarian business, like no other, is characterized by risks and uncertainty of the influence of natural and climatic factors and seasonal production. In addition, it is important to properly plan revenue and expenditure, rational distribution of material and financial resources. Thus, efficient management of agrarian enterprises requires the formation of a model that will ensure stable and constant income, will neutralize the negative impact of environmental factors and will insure the risks of entrepreneurial activity.

Diversification of activities should be innovative from the processing of its own products and its sale to the end consumer to the establishment of new types of business that are not specific to agricultural production - shops, pharmacies, hairdressers, hotels and others. In the list of directions of diversification, priority is given not only to the production of new types of products, but also to new types of services, including tourist ones.

At the present stage, the issues of legislative support and regulatory framework for agrotourism development are not regulated, because in agrarian tourism, mainly as a sphere of activity of individuals (rural masters and members of their families), which are not subjects of entrepreneurial activity and provide services temporary accommodation (accommodation) of tourists in the owner's own house. The agrarian tourism is considered as one of the services that can be provided within the framework of the economic activity of individual peasant farms in the Ukrainian legislation.

In connection with the processes of global urbanization, agrotourism is gaining popularity among the population and among the families with children. In contrast to the traditional forms of tourism, the day off in the agrarian environment acquires cognitive, educational functions, where participants can learn about the origin of food products, especially the technology of their production, environmental aspects of the activities of agricultural enterprises in practice.

Business ideas of agrotourism are connected with attraction of tourists not only to passive recreation in nature, but also to active activity in the process of collection and production of products of agriculture, forestry and fish farming. In particular, fish farming, soil cultivation, the creation of garden and park facilities, the harvesting of fruits, berries, mushrooms on fields and in natural conditions, feeding and care for farm animals, and the creation of eco-settlements<sup>1</sup> will be relevant for recreation.

Main benefits of agro-tourism for farms providing services in this area:

- additional stable income during the year in the service sector;
- entrepreneurial activity of the economy activation, attraction of additional workplaces and other resources for tourism business;

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<sup>1</sup> Business Idea: How to Earn on Green Tourism URL: <http://my.rv.ua/hotnews/biznes-ideya-yak-zarobiti-na-zelenomuturizmi/>

- development of skills, new knowledge and skills of workers acquisition in reception and maintenance of tourists, excursions, familiarization with the economy and individual business processes;
- free farm facilities usage - public catering establishments, cultural buildings, historical and cultural monuments, recreational areas;
- popularization of own products, its qualitative indicators increase, expansion of the trade consumers and intensification circle;
- aesthetic and cultural development of business entities;
- related areas development (solar farms, trade establishments, hotel and restaurant business, cultural and sports facilities).

Experts estimate that the family of farmers can receive a constant 20-30% of income from rural tourism to the total income<sup>1</sup>. A well-established tourist route for agribusiness can provide additional cash flows. Agreeing with the opinion of advocates of progressive local self-government, agrarian tourism is the most important point of local communities' unification and a key component of rural tourism<sup>2</sup>. Farm tourism is a type of rural green tourism, informative and recreational, associated with the use of subsistence farms or agricultural enterprises, temporarily withdrawn from the agrarian sector<sup>3</sup>.

In our opinion, agrotourism should be interpreted more widely, not only as activity on land withdrawn from agricultural turnover. After all, agrotourism product can be the technological process of agrarian enterprises, which involve all factors of production, the process of processing agricultural products, the finished products themselves.

We offer the definition of agrotourism as the activities of economic actors in rural areas on the basis of the use of land, labor, material and technical and socio-cultural resources in order to obtain additional income and profits. At the core of the distribution of agrotourism are a number of socio-economic aspects, which determine its effective development (Table 1).

*Table 1. Socio-economic aspects of agritourism development \**

Agritourism aspects	Content
Economic	Farm tourism serves as an additional source of income for economic entities, creates opportunities for using non-expendable resources, improving their own production and farmland, and, consequently, increasing demand for products and their market value.
Socio-cultural	Interaction of household workers with residents of big cities and other regions (the effect of cultural and psychological intergeneration when communicating).
Ethno-cultural	Activation of resources of business entities, revival of historical values, promotion of cultural national traditions.
Personal	The development of people from the side of tourists and agroformations on the basis of the need to acquire new knowledge, skills, professional development of workers for the excursions organization and tourists' reception, increase of the individual self-esteem, awareness of responsibility, independence, reliance on their own strength and resources of their own economy.
Social	Farm tourism contributes to solving a number of social issues related to the manpower attraction, increase of employees' income, streamlining of territories, payment of taxes to local budgets.

- Adapted for<sup>4</sup>.

<sup>1</sup> Tourists in the countryside: the hidden possibilities of Ukraine URL: <https://www.radiosvoboda.org/a/svoboda-v-detalyah/29374595.html>

<sup>2</sup> Business Idea: How to Earn on Green Tourism URL: <http://my.rv.ua/hotnews/biznes-ideya-yak-zarobiti-na-zelenomuturizmi/>

<sup>3</sup> Farm tourism as a form of diversification of activities of agrarian formations URL: [http://tourlib.net/statti\\_eng/pereguda.htm](http://tourlib.net/statti_eng/pereguda.htm)

<sup>4</sup> Prospects for the development of rural green tourism in Ukraine URL: [http://tourlib.net/statti\\_eng/siltur7.htm](http://tourlib.net/statti_eng/siltur7.htm)

Such activities will contribute to the achievement of not only economic but also a number of socio-cultural goals, namely:

- will achieve preservation and reproduction of cultural heritage, national identity of the territory;
- will contribute to changing the psychology of people in connection with the transformation of them from employees of traditional agriculture to the service staff;
- will provide changes to the traditional structure of agricultural production, etc.;
- will contribute to the growth of incomes of both the local population and the region as a whole, reducing the unemployment rate in the village;
- will create conditions for the development of small business in rural areas and reduce the shadow economy;
- will raise a careful attitude towards nature;
- will act as an active factor in the development of social sphere in rural settlements and the creation of social infrastructure, improvement of the appearance of rural areas, etc.

At the same time, this type of tourism will stimulate the development of agricultural production and its diversification. This is due to the increase in production, as tourists will buy food (honey, milk, etc.) and expanding the structure of demand for food, handicraft items (jugs, embroidered clothes) that are produced in rural areas.

Although agrarian tourism originated in European countries, the development leadership over the past few years has kept the United States. About 2/3 of the adult citizens of the country, at least once during their lives, traveled to the countryside for rest in the last few years. Currently, about \$ 600 billion in revenue comes from the travel industry every year, yielding only medical services and business services.

The European model of agrotourism is directly dependent on state support and programs for involving rural communities in agrarian tourism. The Government of the countries of the European Union, in agrarian tourism, sees the main lever of the economic recovery of rural areas. According to the experts of the European Bank for Reconstruction and Development, the creation of conditions for living and working in the village costs 20 times less than the cost of living in rural areas<sup>1</sup>.

In Western Europe the number of beds for recreation in the countryside has almost equaled in private agro-villages and in classical hotels. For example, the values and traditions of agrotourism for many years profess Britain nowadays. The national tourist organization of the country has accredited more than 1,000 agroholds. This type of tourism provides over 350 thousand jobs and is a prerequisite for the existence of 25 thousand small businesses in rural areas<sup>2</sup>.

For example, in Denmark, the National Farm Tourism Association was founded only thirty years ago (with the material support of the Union of Danish Farmers), but already brings together about 200 people with 1500 beds in rural areas.

Agrarian tourism in France is represented by the National Organization of Rest Houses and Green Tourism. It is this organization that owns agro-churches for every taste and kind of rest, certified according to high national standards of service. At the same time, different agro-tourism concepts are implemented, such as seaside agro-churches, equestrian farms, wine-growing farmsteads, ski chalets, pandas-agroecocottages, castles in the countryside, fishing houses, etc. A progressive development has been made by a network of camping camps, which are actively used by those tourists who like to travel the country on their own car. These campsites are located in rural areas, so travelers can get fresh home cooking products.

Also, the leader in agrotourism development is Spain. This country has more than 5,000 vacation options in the countryside, and the number of beds exceeds 27 thousand units. About 750 rural hotels have been categorized by «INNS OF SPAIN» system, and received from 1 to 4 tulips. A significant part of such rural hotels are located on the territory of the redeveloped monasteries,

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<sup>1</sup> Agrotourism as a form of diversification of activities of agrarian formations URL: [http://tourlib.net/statti\\_ukr/pereguda.htm](http://tourlib.net/statti_ukr/pereguda.htm)

<sup>2</sup> The European experience of organizing rural green tourism URL: [http://tourlib.net/statti\\_ukr/siltur2.htm](http://tourlib.net/statti_ukr/siltur2.htm)



rebuilt estates, historical castles. Every year, the services of this type of tourism are used by more than 1 million people.

Meanwhile, in Italy, agrotourism business is closely interwoven with the resort. After the introduction about thirty years ago, the government of the country's preferential tax regime for rural entrepreneurship has developed an extensive network of image recreation cottages and boarding houses, which have a categorization of at least three-star level. Such establishments are provided with the entire necessary recreational infrastructure. Despite the fact that the cost of services for this kind of recreation in Italy is almost twice as high as, for example, in France or Spain, it employs about 2 million people annually (78% of them are residents of this country).

Austria also has more than 15 thousand registered agro-tourism farms with a total capacity of 170 thousand beds - this is every seventh tourist bed. The «highlight» of the holiday in the Austrian Alps is the direct involvement of guests in the traditional farmhouse - cattle on alpine meadows, the collection of mountain grasses and berries, the manufacture of dairy products, etc., as well as various programs of Active Mountain, extreme and ecological tourism.

It should be noted that all the national organizations of rural tourism and agro-tourism of the countries of Europe in the late 1990s joined the European federation of farm and rural tourism. The federation's short name is EuroGites. Its main goal is defined as follows: the comprehensive promotion of the values of recreation in rural areas, the study and preservation of the potential of rural tourism in Europe, the promotion of rural green tourism in all agrarian regions of Europe, etc. Today, EuroGites is considering joining a federation as a full member of Ukraine from the All-Ukrainian Association for the Promotion of Rural Green Tourism Development<sup>1</sup>.

Ukraine also identifies as one of its priority activities the diversification of entrepreneurship in rural areas, the development of rural tourism, the revival of auxiliary crafts and crafts in order to create a level playing field for the efficient functioning of farms of all forms of ownership, as well as stimulating the association of commodity producers both in production and in the service sector, which will enhance their competitiveness<sup>2</sup>.

Unfortunately, the current state of the agrarian sector of Ukraine shows the state's inability to provide effective support for the development of rural areas, therefore the option of participation in this process of agricultural producers who are themselves in a very fragile situation, given the low profitability of agricultural production, remains a significant factor. From this it becomes clear that without increasing the efficiency of production it is impossible to carry out profound socio-economic transformations in the agrarian sphere. To resolve this dilemma, diversification is called, which makes it possible, rationally using existing natural resource potential, to ensure the material well-being of the population and the social and economic well-being of the regions<sup>3</sup>.

An overview of scientific publications devoted to diversification, gives an understanding of the economic essence of diversifying the activities of enterprises as an important direction in managing their operation in the dynamic conditions of scientific and technological progress and crisis situations. Diversification is considered in scientific journals mainly at the level of introduction of new types of products, non-traditional for agrarian business.

Diversification of production in the agroindustrial complex is an expansion of the nomenclature and assortment, a change in the types of products produced by the enterprise to improve the efficiency of economic activity, obtain economic benefits, prevent bankruptcy, taking into account the environmental and social needs of the population<sup>4</sup>.

Diversification is also associated with avoiding part of the risk when allocating capital between different activities. Thus, the excessive deepening of the specialization of the agricultural

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<sup>1</sup> Tourists in the countryside: the hidden possibilities of Ukraine URL: <https://www.radiosvoboda.org/a/svoboda-v-detalyah/29374595.html>

<sup>2</sup> Farm tourism as a form of diversification of activities of agrarian formations URL: [http://tourlib.net/statti\\_eng/pereguda.htm](http://tourlib.net/statti_eng/pereguda.htm)

<sup>3</sup> Prospects for the development of rural green tourism in Ukraine URL: [http://tourlib.net/statti\\_eng/siltur7.htm](http://tourlib.net/statti_eng/siltur7.htm)

<sup>4</sup> Business Idea: How to Earn on Green Tourism URL: <http://my.rv.ua/hotnews/biznes-ideya-yak-zarobiti-na-zelenomu-turizmi/>

enterprise significantly increases its risk. At the same time, natural and economic conditions, including the market capacity and the degree of its saturation with agricultural products, may be favorable for the organization of new production<sup>1</sup>. In this way V. Goncharov defines diversification as a process of expanding the product range of the firm in order to ensure greater stability of the results and avoid fluctuations in profit making<sup>2</sup>. As a decrease in the degree of entrepreneurial risk due to the elimination of dependence on a single product, the diversification of L. Lozovsky<sup>3</sup>.

It is the diversification, according to A. Shepitsen, in agricultural production is used to reduce risks, the conquest of new segments of the market, increase in revenues of the enterprise through the processing, and in some situations and sales of products.

Diversification of production in agriculture involves increasing profits through the use of market opportunities and the establishment of market benefits, providing new workplaces of rural labor.

The main reason for diversification is the desire of farms to reduce their dependence on narrow commodity nomenclature<sup>4</sup>. Similar opinion on this term is also observed by E. Boguslavsky, which defines it as an element of effective enterprise management, where, due to the skillful combination of different types of activities with a minimum degree of risk, the maximum profit can be achieved. Diversification involves identifying exactly the type of activity in which the most competitive advantage of the enterprise can be realized<sup>5</sup>.

Considering diversification from the point of view of managing the formation of the efficiency of agrarian enterprises, we consider it appropriate to define it as a complex of decisions and actions aimed at obtaining income from different sources, which within each enterprise meet the stated goals and contribute to the achievement of the ultimate goal, that is, those intentions that the enterprise is guided by its activity. But it is not enough to adopt diversification as the main strategy of socio-economic growth. It is necessary to provide methodological and practical support for the implementation of this strategy in the practice of enterprise management.

The development of agricultural production depends on the attitude of society to the social problems of the rural population, the level of its qualifications and culture, the motivation of its labor and social activity in the implementation of economic reform, the introduction of scientific and technological progress in agricultural production. Social transformations in the countryside should provide the same living conditions for the rural and urban population, since the standard of living in the village depends on the income of the rural population, the sources and the structure of their formation and use. The lack of sufficient savings from the population has become the main problem of labor migration of the rural population, especially young people.

An extremely important aspect of the organization of rural development is the unification of relevant state, regional and local financial, material and other efforts and opportunities. Each of these levels will perform the function inherent in this work. Not the biggest problem is their harmonization and purposeful regulation. One of the most important steps in this way should be the implementation by each subject of the tasks assigned to him at a specified time and in the prescribed amounts.

In order to address the problems of rural development, it is important to organize integrated rural development based on a carefully elaborated diversification strategy, which forms the basis for the creation of new jobs with the subsequent reduction of unemployment, and an increase in the incomes of the rural population; ensuring the effective functioning of agrarian enterprises in accordance with the natural and climatic conditions, their own resource potential and educational and qualification level of the population and maintaining the ecological reliability of rural areas.

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<sup>1</sup> Tourists in the countryside: the hidden possibilities of Ukraine URL: <https://www.radiosvoboda.org/a/svoboda-v-detalyah/29374595.html>

<sup>2</sup> Farm tourism as a form of diversification of activities of agrarian formations URL: [http://tourlib.net/statti\\_eng/pereguda.htm](http://tourlib.net/statti_eng/pereguda.htm)

<sup>3</sup> Prospects for the development of rural green tourism in Ukraine URL: [http://tourlib.net/statti\\_eng/siltur7.htm](http://tourlib.net/statti_eng/siltur7.htm)

<sup>4</sup> The European experience of organizing rural green tourism URL: [http://tourlib.net/statti\\_ukr/siltur2.htm](http://tourlib.net/statti_ukr/siltur2.htm)

<sup>5</sup> The wine-making economy of Prince P.M. Trubetskoy URL: <https://vina-trubetskogo.com.ua/vinnyj-turizm/>

Among the effective directions of diversification in the agricultural sector, not only the focus on intra-industry diversification of production should be considered in order to increase the current profitability of crop production and livestock production, but also the introduction of new types of activities that do not belong to the profile of agricultural enterprises. Among them, rural tourism (green) is especially important.

In addition to minimizing the risks of non-profit management, these directions will orient the management of enterprises operating in depressed regions, the year-round involvement of production personnel and managerial optimization of the structure of the enterprise with the strategic goal of entering new markets for products. Diversification will enable enterprises to make full use of material resources, land and labor. This will help to mitigate the seasonality of production, increase the employment of employees, obtain additional income and solve on this basis a number of socio-economic problems.

The development of the tourism sector in the countryside will contribute to the restructuring of the rural economy. It will have an impact on the development, first of all, of such industries as transport, construction, communications, agriculture, social sphere. Agrarian tourism, often referred to as rural green tourism, has acceptable natural, climatic, socio-cultural and economic preconditions for development in the Kherson region, due to the presence of rural areas: activities related to rural enterprises, with land, nature, traditional for sat down in a way of life; opportunities for participation in the activities of the local population; flexible contacts with the rural population; necessary buildings, constructions, etc.

In our time, residents of big cities have a need to communicate with nature, breathe clean air, to go in natural silence, for some time to live on natural food.

For example, of the total number of tourists in the world, almost one in three prefer rural tourism, which involves resting tourists on the basis of farm or household. We can describe the development of agrarian and ecological tourism in rural areas of the Kherson region as «targeted tours in rural areas with non-disturbance of ecosystems», which provide a direct contribution to solving the problems of the rural population. It is a kind of socio-economic program for the transfer of part of the agrarian population to the service sector.

Agrarian tourism does not require special, special skills, but the organization needs significant financial and material resources in order to prepare the premises for reception of tourists, because in rural green tourism, first of all, there is a good quality of farms and their structures, purity, picturesque nature, clean air. And this, in turn, requires the creation of preferential terms for lending and sponsorship.

Another feature of this business is the need to increase demand for this type of service, which largely depends on the regulation and formation of information and advertising mechanisms.

Their choice is made on the basis of such criteria as the material and technical equipment of farms (their development and modernization of the infrastructure); the competitiveness of each economy in the market of providing services, the level of their profitability from activities in the field of rural green tourism; the quality of providing services in this area, the level of their improvement.

The author defines the main problems in the development of agro-tourism in Ukraine:

- absence of potential participants in the relevant knowledge on the organization of this type of tourism business;
- insufficient experience in carrying out promotional activities and the creation of appropriate communications;
- lack of information on opportunities for agro-tourism rest;
- low level of agro-tourism culture;
- lack of training system for agro-tourism activities;
- disorganization of this type of business;
- unsettled legislation and the system of taxation of agro-tourism activities;
- absence of a system of categorization of agro-tourism farms;

- lack of business activity of self-government bodies in the development of agro-tourism in rural areas and software support of the state<sup>1</sup>.

The development of agrarian tourism for the rural areas of the Kherson region is not only the development of a highly profitable type of entrepreneurial activity, but one of the areas of development of the village and rural areas, a way of reducing social tension, raising the living standards of peasants and farm workers, and ensuring a stable socio-economic development of the region.

In our opinion, particular attention should be paid to the development of agro-tourism in farms with more opportunities than households. An example of diversification of the main activities and effective activities in the field of agro-tourism in Kherson region may be the Demchenko "PP. Lyubimovka of the Kakhovka district, which actively attracted tourists to the knowledge of "saffron business" and organized agrotura to the festival of tulips "Little Holland-2018"<sup>2</sup>.

Also popular with tourists is wine tours with tasting. A romantic holiday surrounded by vineyards, with an incredible view of the Dnieper in comfortable conditions, gives its guests "The wine-growing economy of Prince P.M. Trubetskoy ". A journey through history can be found in wine cellars and fanciful galleries. Here you can plunge into history, because 8 wine cellars store more than 10 thousand bottles, among which about 7 thousand wines - rare specimens. Tour "Winery by Prince P.M. Trubetskoy "introduces tourists to the wonderful world of winemaking. Here you can find out how the wine is made and touch the magic of this process, visit vineyards, chateau, galleries of wine cellars of the 19th century, the palace of Peter Trubetskoy, join one of the ethnographic, enogastronomic and other tours organized by the wineries<sup>3</sup>.

The family winery «Kurin» - one of the first Ukrainian micro-industry also practices the attraction of tourists. Having studied the European traditions of the ages, the farmer M. Khalupenko concluded that a high-quality authentic wine, which has its own style, can be done only in small volumes, at the farm grow high-quality grapes and produce quality wine from it. The family winery TM «Kurin» is created on the example of French chateau. Kurin's wine is highly appreciated not only by visitors from Ukraine, but a lot of foreign language records in the guest book.

Principles that profess in their work wine-makers TM «Kurin», aimed at the quality of the product:

- Avoiding the mass production of wine in the direction of individualization;
- the creation of wine, maximally expresses the features of the terroir;
- revival of the culture of wine consumption.

According to the head of Kurin, Kherson Region is becoming not only an agrarian, but also a tourist region, which makes farmers have stable sales. This year, Kurin sold a lot of wine to the guests of the region, hoping that the tourism industry will continue to grow, which will provide additional earnings to all Kherson producers<sup>4</sup>.

Innovations in the development of agro-tourism were held this year's shares of Kurin – «Pick up raspberries by yourself», «Pick up your apples - stock vitamins for the winter now», which caused a real «fruit boom». The farmer invited all those wishing to collect juicy, environmentally friendly apple varieties Johnagold, Golden, Semerenko and Pears Conference, Berez Bos, Tavriyska and buy them at low prices<sup>5</sup>.

The Kherson region still lacks a range of agro-tourism products and services. It is worthwhile extending them by introducing agro-goblins, agro-gastronomy, agro-harvesting, agro-therapy<sup>6</sup>.

<sup>1</sup> The European experience of organizing rural green tourism URL: [http://tourlib.net/statti\\_ukr/siltur2.htm](http://tourlib.net/statti_ukr/siltur2.htm)

<sup>2</sup> The European experience of organizing rural green tourism URL: [http://tourlib.net/statti\\_ukr/siltur2.htm](http://tourlib.net/statti_ukr/siltur2.htm)

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<sup>5</sup> Business idea to grow saffron URL: <http://jak-zarobyty.pp.ua/4008-bznes-deya-z-viroschuvannya-shafranu.html> In Kherson region there will be an agro-tour instead of a tulip festival. URL: <https://khersondaily.com/news/nahersonschini-projde-agro-tur-zamine-festivalian-tjulpaniv>.

<sup>6</sup> Kherson farmer Nikolai Khalupenko told about a unique family business URL: <http://kherson.ua.city/society/7710-khersonskij-vinorob-mikola-khalupenko-na-pidpriemstvi>

Based on our research, we have substantiated the following models of agro tourism organization in the Kherson region:

1. The development of agro-tourism on the basis of a domestic or personal farm, which produces a certain type of agricultural products and attracts tourists to get acquainted with the peculiarities of economic activity, provides certain periods of residence of tourists and their food (up to 10 beds).

2. Tourist activity of specialized agro-tourism farms («Kurin», Horse-breeding enterprise «Grand Prix», «Winemaking farm named after P.M. Trubetskoi»).

3. We share the opinion of Kulik that a model that includes agricultural theme parks and centers is considered a promising one. The concept of such a model is the popularization of new innovative technologies in agriculture, alternative energy sources, familiarization with traditional agricultural production, traditional and new holidays and events connected with it, providing advisory services and hospitality<sup>1</sup>.

The most successful model is the association of agrotourism subjects services in the form of a cluster, in the center of which a certain type of product (winemaking, cheese making, Kherson watermelons, tomatoes or other environmental or craft products). Such cluster associations involve the interaction of power, business and science and provide the highest quality and efficiency of the tourist product. An important component of the development of agrotourism is to become its own legend, brand and slogan, which distinguish this tourist object and create unforgettable associations with real impressions.

Thus, agricultural tourism in the present conditions of the development of agrarian formations becomes an effective means of formation of stable incomes and an effective market mechanism of management, ensures the receipt of significant funds to local communities and the state budget, is one of the forms of rational use of free time of the population, carrying out of informative and cognitive leisure, studying features the agrarian sphere, the history of the development of traditional forms of economic activity and innovative types of business in agriculture, the involvement of the general population to the historical and cultural heritage knowledge.

To effectively develop agrotourism, standards and standards of services should be developed at the legislative level, harmonize certification standards, licensing, taxation, rights and obligations of those who work in the field of agro-tourism, to clearly distinguish between subjects and objects of this type of tourist services. Legislation should clearly identify which types of activities relate to agro-tourism.

With the decent service and developed infrastructure, the agrotourism of the Kherson region has a prospect of development.

As an offer of an effective component of agrotourism the creation of cultural-cognitive and educational cultural programs are to increase the intellectual level of travelers in the process of their participation in agrotourisms.

For example, agrotour «Senor-tomato» with the participation of the well-known enterprise PP «Chumak» and a number of enterprises that produce tomatoes for processing at this enterprise. In the course of the tour, tourists can be asked to make sure their eyes are ecologically safe to grow tomatoes directly on the field, to hold tasting of different varieties and types of tomatoes, and, in the end, in the processing plant, follow the stages of the production of finished products - tomatoes, ketchups, canned goods.

In order to optimize and streamline agritourism services in the Kherson region, a Regional Tourist Information Center should be set up and, in the regions, tourist information centers, which will develop and implement procedures for ensuring and improving the quality of tourist services - certification of rural homesteads, marking and standardization of agrotourism routes, establishment of light boxes (signs of quality), creation and support of sites and online reservation systems [11].

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<sup>1</sup> Khersons offer plenty of apples and pears - you collect it yourself, buy cheaper URL: <http://favoritekherson.co/2018/09/12/hersoncyam-proponuyut-zapastisya-yablukami-y-grushami-zbirayesh-sam-kupuyesh-deshevshe/>.

Additional services of these centers will be the training and training of owners of agrotourism business, attracting new subjects and popularizing this type of business among the enterprises of the region, expanding participants in thematic conferences, seminars, attracting investors and consulting assistance in shaping documents and business plans.

The introduction of agro-tourism for agrarian formations will become not only a direction of additional money revenues, but also an incentive for attracting additional workers, preservation of environmentally friendly environment, attractiveness of the territory of farms, advertising and thoughtful marketing moves to promote their own products among tourists from other regions and from abroad. And openness of the enterprise, transparency of technological processes in food production will become an important factor for the growth of tourist activity of the population and the success of business processes of farms.

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On the basis of the conducted research it is possible to distinguish the main directions of increasing the effectiveness of agroformations that implement tourism services:

- development and implementation of regional projects for the effective development of agro-tourism and wide involvement of farms in tourism business, creation of social and transport infrastructure, restoration of work of local catering establishments and rest;
- holding forums, conferences, seminars, thematic exhibitions in order to popularize agro-tourism;
- development of methodical guides for establishing a business, standardizing services in the field of agro-tourism, which will comply with current legislation and European standards;
- training of qualified specialists in the market of agro-tourism services and increasing the number of their recruitment in institutions of higher education on the basis of regional orders for targeted destinations;
- creation of a system of state statistics for monitoring of regional and state programs of development of rural green tourism in general and agro-tourism, in particular;
- settlement of the issue of taxation of income received for the provision of services in the field of agro-tourism at the minimum rates set by local councils, the establishment of the tax base and terms of payment.

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<sup>1</sup> Healthy T. At work and at home: how rural tourism can be useful to Ukrainian farmers URL: <http://www.umoloda.kiev.ua/number/3240/159/117922/>

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### 3.2. THE ROLE OF INFORMATION AND INNOVATIVE TECHNOLOGIES IN THE MODERN ECONOMY

In complex technical, economic, social systems, it is important to take into account many different factors and be able to assess the consequences of their change. It is important that these changes not only lead to a better result, but also give the most useful effect. Information technology – it's a system of interconnected methods and methods for collecting, storing, accumulating, searching, processing information based on the use of computer technology.

The term «information technology», according to UNESCO<sup>1</sup>, is a combination of interrelated, scientific, technological and engineering disciplines that study the methods of effective organization of labor of people who are engaged in the processing and storage of information, as well as equipment and methods of organizing the interaction of people with equipment.

In general, information technologies in the economy are actions carried out on economic information using computers in order to obtain the optimal result. In economics, technologies are usually used for processing and storing data in order to organize the process of interaction between participants and equipment, satisfying information needs.

Any managerial decisions are made taking into account the feasibility of the economy. It is worth paying attention also to education in the application of technology in the economy. The optimality of technology will be implemented in the case of staff training and analysis of the latest developments in technology in the economy. The application of technology in the economy is a means of virtual economics.

Information and communication technology (ICT) permeates the business environment, it underpins the success of modern corporations, and it provides governments with an efficient infrastructure. At the same time, ICT adds value to the processes of learning, and in the organization and management of learning institutions. The Internet is a driving force for much development and innovation in both developed and developing countries.

Countries must be able to benefit from technological developments. To be able to do so, a cadre of professionals has to be educated with sound ICT backgrounds, independent of specific computer platforms or software environments. Technological developments lead to changes in work and changes in the organization of work, and required competencies are therefore changing. Gaining in importance are the following competencies: critical thinking, generalist (broad) competencies, ICT competencies enabling expert work, decision-making, handling of dynamic situations, working as a member of a team, and communicating effectively.

The concept of «innovation» – is currently considered as the final result of innovation, expressed as a new or improved product distributed on the market, a new or improved technological process used in practice. The purpose of innovation is to obtain an economic, environmental, social or other type of effect.

Technology («science of craft», from Greek τέχνη, techne, «art, skill, cunning of hand»; and – λογία, – logia) – a manner of accomplishing a task especially using technical processes, methods, or knowledge<sup>2</sup>

Innovative technologies are a set of methods and tools aimed at supporting the implementation stages of a specific innovation. The following types of innovative technologies exist: training, implementation, consulting, engineering and transfer. With the development of new technologies and as a result of the innovative activities of companies, innovative products are created that can be in a specific material or other form.

In the conditions of globalization changes and transformations, any sphere of human existence and activity undoubtedly connected with the information component. It is worth noting that information technology is simply not possible without an innovative component. There is a lot of software and development in the economy and management right now that can accurately, quickly

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<sup>1</sup> Evgueni Khvilon. Information and communication technology in education: a curriculum for schools and programme of teacher development, p.9

<sup>2</sup> "Technology | Definition of Technology by Merriam-Webster". Merriam-Webster.



provide up-to-date data, make accurate forecasts.

For example, the use of information technologies and innovation in the modern economy is modeling of the agricultural sector of Ukraine based software AGMEMOD (Agriculture Member State Modelling). At its core, AGMEMOD is econometric, dynamic, partial equilibrium multi-country, multi-market model, first developed for the agricultural and food markets in the EU, covering the majority of EU member states at the national level. Based on a set of standard templates for specific products, the model developed by individual countries taking into account the agricultural components at Member State level and at the same time to a combination of the EU model. Later, this model was extended to seize other countries and stylized version of the rest of the world (ROW), which neglects any detailed understanding and policy. Careful passing patterns provides analytical consistency model of the country, necessary for the purpose of aggregation. Besides, joining the template model and the overall modeling approach also contributes to a better understanding of the effects of these policies in different countries. Models can help in conducting research, the study of future problems (eg, introduction of monitoring of land relations), political analysis at modeling basic relationships in these areas. Since 2001, AGMEMOD has been developed and sustained by a partnership comprising research institutes, government agencies and universities in European Union (EU) Member States, later extended to include partners in new Member States as well as other countries (such as the former Yugoslav Republic of Macedonia, Russia, Turkey and Ukraine). AGMEMOD has been funded under the European Commission fifth and sixth Framework Programmes and by contributions from partner institutes. The AGMEMOD model is managed in a flexible manner as, depending on the specific task in hand, different AGMEMOD partners build up a consortium around the main developers of the AGMEMOD model. Moreover, the academic network has been extended to include broader society; the result is the AGMEMOD network, involving market experts and stakeholders interested in the results of the AGMEMOD Outlook. The development of the AGMEMOD model and partnership has been continuously supported by the European Commission's Joint Research Centre (JRC) as the AGMEMOD model is an integral part of the Integrated Modelling Platform for Agro-economic Commodity and Policy Analysis (iMAP) hosted by the JRC.<sup>1</sup>

Tables 1 and 2 depict the state of art of commodities and countries that are involved in the current AGMEMOD system, in combination with its mnemonics or codes used.

*Table 1. Commodity names and codes in AGMEMOD*

Grains and Oilseeds		Root crops, fruit, other		Livestock, Meats and Fish		Milk and Dairy	
Soft wheat	WS	Potatoes	PT	Cattle	CC	Cow's milk	CM
Durum wheat	WD	Sugar beets	ST	Dairy cows	DC	Other milk	OM
Barley	BA	Sugar	SU	Suckler cows	BC	Whole milk	WM
Maize	CO	Isoglucose	IS	Bovine animals<1y	CV	Skim milk	NF
Oats	OA	Sweetener	SE	Beef and veal	BV	Butter	BU
Rice	RE	Molasse	MO	Pigs	HP	Cheese	CD
Rye	RY	Tobacco	TB	Sows	SW	Casein	KA
Triticale	TR	Cotton	ST	Pig meat	PK	Drinking milk	DM
Other grains	OG	Olive oil	OO	Sheep	LM	Cream	CE
Rapeseed	RS	Tomatoes	TO	Ewes	EW	Other fresh	FM
Sunflower	UF	Tomato paste	TP	Broiler	BR		
Soybeans	SB	Citrus fruit	CF	Other poultry	OP		
Rape meal	RL	Oranges	OR	Poultry	PO		
Sun meal	UM	Apples	AP	Eggs	EG		
Soya meal	SM						
Rape oil	RO	Cotton	CT	Fish	FH		
Sun oil	UO	Cotton lint	CL	Cephalopods	FH_c_		

<sup>1</sup> SUPPORT FOR AGMEMOD MODEL, BASELINE AND DATABASE UPDATES 2017/2018: AGMEMOD technical documentation, p.6

Grains and Oilseeds		Root crops, fruit, other		Livestock, Meats and Fish		Milk and Dairy	
Soya oil	SO	Tobacco	TB	Crustaceans	FH_r_		
		Table wine	WT	Demersal Fish	FH_d_		
Teff	TF	Coffee	CX	Freshwater Fish	FH_f_		
Quat	QQ	Tea	TE	Other Marine Fish	FH_m_		
Beans	BN	Sugarcane	SC	Other Molluscs	FH_o_		
Sorghum	SG	millet	MI	Pelagic Fish	FH_p_		
		Yam	YM	Plaice Fish	FH_I_		
		Plantain	PL	Flatfish	FH_t_		
				Whitefish	FH_w_		
				Salmonidae	FH_s_		
				Fish meal	FHml_		
				Fish oil	FHol_		

AGMEMOD has been extended with extra commodities, activities and countries. In the ideal case, the country models are updated, maintained and used by economic modellers in the relevant countries. This is a unique approach, as other agricultural sector models are maintained within one or a few institutions. The AGMEMOD Partnership also aims to establish an advisory circle of market experts in the agricultural sector in each country to review model projections. In total, the combined process intends to provide a core competency in the economic modelling of agricultural commodity markets and agricultural policy analysis, enhancing the quality of analytical results available for policymaking and decision-making at all levels.

*Table 2. Country names and codes in AGMEMOD (2018)*

EU countries		EU countries		EU countries		Non-EU countries	
Austria	AT	Finland	FI	Malta	MT	Macedonia	MK
Belgium	BE	France	FR	Poland	PL	Turkey	TR
Bulgaria	BG	Greece	GR	Portugal	PT	Russia	RU
Cyprus	CY	Croatia	HR	Romania	RO	Ukraine	UA
Czech R.	CZ	Hungary	HU	Sweden	SE	Rest of World	RW
Germany	DE	Ireland	IE	Slovenia	SI	Iceland	IC
Denmark	DK	Italy	IT	Slovakia	SK	Norway	NO
Estonia	EE	Lithuania	LT	United Kingdom	UK	Ethiopia	ET
Spain	ES	Latvia	LV	UE	EU28	Ghana	GH
						Kenia	KE
						Rwanda	RD
						Tanzania	TA

While policy reform remains a political process, policy makers increasingly use evidence based decision making in policy negotiations. Within the EU, Member States are free to adopt differing positions in respect of policy proposals, based on their assessment of the merits of the policy for their agriculture sector and wider economic and social interests. Those charged with developing policy proposals at EU level, need to have an appreciation for the likely impact of a particular policy in order to identify, at an early stage, any issues that would prevent a policy proposal's acceptance by the Member States. In this context, a model such as the AGMEMOD model, which can provide Member State level detail, will be highly useful for EU and Member State based policy makers.

The primary objective in developing and maintaining AGMEMOD is to have a partial equilibrium modelling system with the capacity to undertake model-based economic analysis of the impact of policy or other changes on the agri-food sector of each EU Member State and the EU as a whole. The AGMEMOD Partnership's approach is a bottom-up one based on country-level models, using a common country model template, and their subsequent combination in a composite EU model. The general structure of the AGMEMOD country and composite models is based on the so-called GOLD template that can be found in Hanrahan (2001). A more detailed model description

can be found in Chantreuil, Hanrahan and Levert (2005). The form of the model template varies across four different groups of commodities, i.e. grains, oilseeds and root crops; permanent crops; livestock; and dairy products.

Based on a set of commodity specific model templates, country specific models were developed to reflect the detail of agriculture at Member State level and at the same time to allow for their combination in an EU model. This approach allows the inherent heterogeneity of the agricultural systems existing across the EU to be captured within the model's parameterisation, while the analytical consistency across the country models is ensured through an adherence to the agreed commodity model templates. The maintenance of analytical consistency across the country models is essential for the successful aggregation of country models to the EU level. It also facilitates the meaningful comparison of the impact of a policy change across different Member States.

The European Union (EU) and Ukraine have developed an increasingly dynamic relationship since 1991, when Ukraine gained independence. Ukraine is a priority partner country within the European Neighbourhood Policy (ENP) and the Eastern Partnership. In March 2007 negotiations on a new EU-Ukraine Association Agreement were launched and have been finished in December 2011 (however, the agreement still has to be signed and ratified)<sup>1</sup>.

Ukraine has huge agricultural potential due to its rich natural resources (soil, climate, and water) and a key geographical position, with access to the Black Sea and the key markets in the EU, CIS, the Middle East and North Africa. The role of agriculture in the Ukrainian economy is quite remarkable. Even though the share of agriculture in total GDP in Ukraine decreased considerably since 1991, agriculture still accounted for about 8.5% in 2010, 10.2 % in 2017, 2018. In addition, with a share of 15% (15.4% in 2010, 17.7% in 2017, 18% in 2018)<sup>2</sup> the Ukrainian agricultural sector still contributes significantly to national employment. Agriculture also has a core role in Ukrainian foreign trade, with agri-food exports accounting for about 20% of total Ukrainian exports in 2018.

The farm structure in Ukraine is characterized by corporate farms or so-called agricultural enterprises and individual farms, with the latter comprising peasant farms and household plots. In 2018, agricultural enterprises produced about 80% of total Grain and leguminous crops, 95,3% of sugar beets and 86% of sunflowers in Ukraine. On the other hand, Ukrainian household farms produced about 98,2% of total potatoes, 85,6% of vegetables and 78,4% of fruits and berries. The majority of all types of livestock (excluding only poultry) is kept by household farms, and regarding production output, households have produced 73% of total milk production in Ukraine, whereas 60% of all meat has been produced by agricultural enterprises.

About half of the 75,6 million hectares of agricultural land in Ukraine is cultivated with Grain, leguminous crops and sunflower. With respect to area, the most important grains are soft wheat, barley and maize. The main oilseed is sunflower, but rapeseed and soya are cultivated as well. During the transition period, Ukrainian agricultural production withered especially with regard to animal production, due to a drastic drop in demand which was driven by a decline in real per capita income. The lower meat production also caused a considerable drop in domestic feed demand. However, during the last decade in particular Ukraine's grain production recovered significantly and in 2018 Ukraine produced about 70 million tonnes of Grain and leguminous crops. Correspondingly, Ukraine's grain export shares also rose constantly between 2002 and 2009 and Ukraine became a big player on the world grains market. Furthermore, besides Russia and the EU, Ukraine became one of the biggest sunflower seeds producers and one of the major vegetable oils exporters. The increase in Ukrainian crops exports was supported by a significantly increase in export capacities due to the extension of the required infrastructure, such as the capacity of Ukraine's commercial seaports. In the agri-food sector, Ukraine's main trading partner is the EU, both in terms of imports and export. CIS and Middle East countries absorb an increasing share in

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1 Myrna van Leeuwen, Petra Salamon, Thomas Fellmann, Martin Banse, Oliver von Ledebur, Guna Salputra and Olexandr Nekhay : The agri-food sector in Ukraine: Current situation and market Outlook until 2025, p.67

2 State Statistics Service of Ukraine. Agriculture of Ukraine. Statistical Yearbook. p. 26

Ukraine's exports as well, while Russia's role as the third main export destination for Ukrainian agri-food commodities is decreasing.

Regarding Ukraine's agricultural policies, the main domestic policy measures comprise input subsidies through tax concession, credit availabilities for agricultural producers and direct payments based on animal numbers and agricultural areas. Domestic market price support mainly consists of minimum prices. Poultry, beef, pig, and sugar are the most protected sectors. The agricultural trade policy of Ukraine has changed significantly since the early 1990s. Exports, formerly processed by governmental agencies under largely barter-based bilateral agreements, are now conducted by private market transactions to an increasingly number of export destinations. Export quotas have been actually replaced by tariffs and indicative prices, while export taxes still restrict a few selected products. For some commodities and products (e.g. live cattle, mutton, sheep), Ukraine applies minimum prices below which products cannot be exported. In May 2008 Ukraine became a new member of the WTO, which led to considerable changes in agricultural support instruments and in Ukraine's use of trade policy measures. The majority of Ukraine's WTO commitments should have been reached by 2011, including substantial reductions in tariff protection for key agro-food products and downscaling of export restrictions. Due to WTO commitments customs duties have been capped at bound rates between 0% and 30% (with the exception of sugar where 50% are applicable for out of quota imports). As a consequence, import tariffs decreased, especially in the poultry, sunflower, and sugar sectors. In general, the WTO commitments should essentially determine the framework for future agricultural policies in Ukraine and help to make the policies more stable. In particular with regard to trade activities Ukraine should have fewer possibilities to intervene, involving the use of traditional approaches to resolve emerging problems of domestic market supplies. Nonetheless, after its grain production was hit by severe droughts in 2010, Ukraine introduced quotas for grain exports on the grounds of domestic food security. The measure was removed again in 2011.

Ukrainian agriculture is one of most attractive investment opportunities in the world. The Ukrainian government encourages foreign investors to invest into agricultural business in Ukraine. Referring to the statistics of the previous years, Ukrainian agriculture has been securing approximately 8-10% of national GDP within the last few years. Approximately 18% of working population is employed in agriculture.

Ukraine has 41,5 m ha of agricultural land, which comprises 68,7% of the country's total area. Among them: 78,3% - arable land (32,5 million hectares), 13% – pastures (5,4 million hectares), 5,8% – grasslands (2,4 million hectares), 2,2% – perennial plants (0,9 million hectares). Ukraine has favourable climate for large-scale agriculture, rich agricultural soils and access to abundant land and water resources.

The agricultural GDP (as of 2018) – was 40 billion USD. The basis of agriculture is crop production – 72% of the total agricultural production, animal production states 28%.

The main crops sowed in Ukraine (as of 2018) are wheat 6,6 million hectares (23,8% of arable land), sunflower – 6,1 million hectares (22,0% of arable land), corn – 4,4 million hectares (15,9% of arable land), barley – 2,5 million hectares (9% of arable land), soybean – 1,7 million hectares (6,1% of arable land), potatoes – 1,3 million hectares (4,7% of arable land), rape and colza – 1,0 million hectares (3,6% of arable land). These crops occupy 85% of arable land in Ukraine.

Now this process has already begun and is expected in the near future Ukrainian producers access to the markets of the European Union and the Middle East. On the other hand, the poultry sector demonstrates a positive tendency. Promoting of Ukrainian products on international markets and requirements to comply with the HACCP system since 2017 will help in reaching new markets.

Ukrainian farming business has to look for new business development locations, markets and instruments. Obviously, value adding niches of fruits, veggies and organics foods are most promising on the global food market. European Union, Middle East, Asia and Oceania are markets to consider for trade development. Processed and dried products with customized service for each local market is a high margin niche in mentioned regions for major number of Ukrainian farming businesses, which may contribute impressive results through strategic investments and steady

quality improvement.

Ukraine has a strong position in practically all stages of the food supply chain, in particular, with regard to raw material, production, processing, wholesale and retail trade, consumption, export. The export process is supported by the strong infrastructure.

Overall volume of agricultural export in 2018 amounted to 18,6 billion USD (live animals and livestock products – 1.2 billion USD, plant products – 9.9 billion USD, animal or plant fats and oils – 4,5 billion USD, finished food industry products – 3.0 billion USD).

In 2018, agricultural exports (increased by 5.1% (or 0,9 billion USD) comparing to 2017. Imports of agricultural products in 2018 rose by +16% compared to the 2017 and reached 5.1 billion USD (live animals and livestock products – 0,9 billion USD, plant products – 1,5 billion USD, animal or plant fats and oils – 0,3 billion USD, finished food industry products – 2,4 billion USD), representing 9% of total imports of Ukraine. The main products that are exported are sunflower oil (4,1 billion USD, 5,6 million t.) – 22,0% of agricultural export value, corn (3.5 billion USD, 21.4 million t.) – 18,8%, wheat (3 billion USD, 16.4 million t.) – 16.2%, sugar is white (0.2 billion USD, 0.6 million t.) – 1,1%, cigarettes containing tobacco (0.3 billion USD, 0.03 million t.) – 1,6%. In addition, soybeans, sunflower meal, barley and poultry meat. Imports – fish fresh, chilled or frozen (0,5 billion USD), tobacco raw materials (0,3 billion USD), sunflower seeds (0,3 billion USD) and citrus.

The balance of foreign trade in agricultural products has remained positive for many years, while the total value of all imported goods, in the vast majority of periods, exceeded their export volume. In particular, according to current data, in 2018, the overall balance of foreign trade in goods is negative (- \$ 9.6 billion), while the agricultural balance is positive (+\$ 13.6 billion).

Table 3 depict geographic structure of exports of certain agricultural products in 2018 (%).

*Table 3. Geographic structure of exports of certain agricultural products in 2018, %*

<b>Name of goods</b>	<b>EU</b>	<b>Asia</b>	<b>Africa</b>	<b>America</b>	<b>CIS</b>
Wheat	10	52	37	1	0
Corn	47	33	19	0	0
Barley	3	87	10	0	0
Sunflower oil	23	72	3	1	1
Meat of poultry	50	34	9	0	8
Butter butter	14	38	34	0	14
Sugar is white	8	12	14	0	66

The value structure of imports is dominated by the group «Finished food industry products» (47%), among which the largest share is alcoholic and nonalcoholic beverages, vinegar, tobacco and industrial substitutes of tobacco, other mixed foodstuffs, cocoa and cocoa preparations.

The second position of agricultural imports is products of vegetable origin, whose share is 30%. The most prominent representatives of imported products in this subgroup are citrus, bananas, coffee, corn and sunflower seeds.

Of animal origin, whose share in the structure of imports is about 18%, fish and seafood are the most imported, with a share of almost 70% in this segment. Imports of cheese, pork and poultry meat and poultry by-products are also active in Ukraine.

The geography of agricultural supply over the last decades has significantly expanded, and today Ukrainian food is, to one degree or another, represented on all continents of the planet. However, the main connoisseurs of products from Ukraine are the countries of Europe and Asia.

Positive transformations triggered by these reforms have been noticeable, as well as have been reflected in some major global rankings.

The most prominent ranking is the Doing Business<sup>1</sup>, which is composed by the World Bank on a yearly basis. The Ukraine's score has been steadily increasing for the last years – from 48.87 points in 2013 up to 68,25 points in 2018. Now, Ukraine is ranked 71th among 190 economies.

<sup>1</sup> Doing Business 2019 Economy Profile of Ukraine Training for reform WORLD BANK GROUP 16<sup>TH</sup> EDITION, p.3

Doing Business is a sophisticated index that tries to evaluate a variety of different economic, financial and legal aspects.

In particular, in recent years Ukraine has improved its performance in categories like Starting a business, Registering property, Enforcing contracts, Getting electricity etc.

But not only economic and financial factors contribute to an attractive investment environment. Other factors, like e.g. political stability, or maturity of civil society institutions along with many other social aspects matter as well. Because of that it is particularly important that since the Revolution Ukraine has been gradually improving its position in the Corruption Perceptions Index, which is published by the Transparency International. Its score has been slowly increasing, starting at 25 in 2013, 29 in 2016 and reaching 32 in 2018 (120/180). Though corruption is still an issue in Ukraine, this positive trend indicates that Ukrainians are becoming less tolerant towards corruption.

Another international index, in which Ukraine has been showing positive dynamic, is the Index of Economic Freedom of the Heritage Foundation, an American think-tank. Ukraine's economic freedom score is 52.3, making its economy the 147th freest in the 2019 Index. Its overall score has increased by 0.4 point, with improvements in fiscal health, business freedom, and property rights outpacing declines in labor freedom and trade freedom. Ukraine is ranked 44th among 44 countries in the Europe region, and its overall score is below the regional and world averages. Progress has lagged on many much-needed but contentious structural reforms such as cutting subsidies and raising energy tariffs, fiscal consolidation, and the fight against corruption. As Ukraine's oligarch-dominated economy improved in 2018, partly because of greater inflows of remittances, Western institutions found that they had less leverage to press for further reforms to make the country more prosperous, democratic, and transparent. Ukraine also needs to develop its capital markets, privatize state-owned enterprises, and improve both its legal framework and the rule of law.

With the Fourth Industrial Revolution (4IR), humanity has entered a new phase. The 4IR has become the lived reality for millions of people around the world, and is creating new opportunities for business, government and individuals. Yet it also threatens a new divergence and polarization within and between economies and societies. This year also marks the tenth anniversary of the beginning of the global financial crisis, which has had social and economic consequences of a magnitude unprecedented in recent generations. Combined with a background of growing inequality and geopolitical flashpoints, this has fuelled citizens' concerns about globalization and polarized the political debate. Although global economic growth has been robust over the past two years, it remains fragile in this changing economic and political context.

These developments – the 4IR and the consequences of the Great Recession – are redefining the pathways to prosperity and, indeed, the very notion of prosperity, with profound implications for policy-making. Concerned leaders are grappling for answers and solutions, aiming to go beyond short-term, reactionary measures. Tables 4 depict Index of Economy Profiles of the 140 economies.

*Table 4. The Global Competitiveness Index 4.0 2018<sup>1</sup>*

Index Component	Ukraine (83)		Poland (37)		Best Performer	Worst Performer
	Score*	Rank/140	Score*	Rank/140		
1. Institutions	46,3	110	57,1	53	New Zealand	Venezuela
2. Infrastructure	70,1	57	79,3	27	Singapore	Haiti
3. ICT (information and communication technologies) adoption	51,0	77	54,4	68	Korea, Rep.	Chad
4. Macroeconomic stability	55,9	131	100	1	Multiple (31 countries) (Australia, Botswana, Chile and etc.)	Venezuela

<sup>1</sup> Antoshchenkova V.V. (2019): Konkurentospromozhnist, yak osnova efektyvnoyi natsionalnoyi ekonomiky [Competitiveness as a basis for an effective national economy]. Visnyk KHNTUSG : ekonomichni nauky - Bulletin of KHNTUSG. Economic science, no 200, p.90.

Index Component	Ukraine (83)		Poland (37)		Best Performer	Worst Performer
	Score*	Rank/140	Score*	Rank/140		
5. Health	72,0	94	86,2	49	Multiple (4 countries) (Japan, Spain, Singapore, Hong Kong SAR)	Lesotho
6. Skills	68,9	46	72,9	32	Finland	Mozambique
7. Product market	55,3	73	61,2	38	Singapore	Angola
8. Labour market	59,5	68	59,8	62	United States	Yemen
9. Financial system	48,7	117	63,4	55	United States	Yemen
10. Market size	62,7	47	73,4	22	China	Gambia, The
11. Business dynamism	55,3	86	61,5	55	United States	Haiti
12. Innovation capability	39,0	58	48,7	38	Germany	Angola

\* Scores are on a 0 to 100 scale, where 100 represents the optimal situation or «frontier». Arrows indicate the direction of the change in score from the previous edition, if available.

The United States is the closest economy to the frontier, the ideal state, where a country would obtain the perfect score on every component of the index. With a competitiveness score of 85,6, it is 14 points away from the frontier mark of 100, implying that even the top-ranked economy among the 140 has room for improvement. It is followed by Singapore (83,5) and Germany (82,8). Switzerland (82,6) comes in at 4th place, followed by Japan (82,5), Netherlands (82,4), Hong Kong SAR (82,3). The United Kingdom (82,0), Sweden (81,7) and Denmark (80,6) round out the top ten.<sup>1</sup>

In this context, the World Economic Forum is introducing the new Global Competitiveness Index 4.0, a much-needed economic compass, building on 40 years of experience in benchmarking the drivers of longterm competitiveness. After having conceptualized the Fourth Industrial Revolution, the World Economic Forum is contributing to global thinking and policy-making by integrating the notion of the 4IR into the definition of competitiveness.

The index integrates well-established aspects with new and emerging levers that drive productivity and growth. It emphasizes the role of human capital, innovation, resilience and agility, as not only drivers but also defining features of economic success in the 4IR. It calls for better use of tech as part of a holistic approach with other factors of competitiveness. Finally, it offers objective, data-driven analysis for dispassionate, future-oriented, and rational policy-making.

The results of the GCI 4.0 reveal the sobering conclusion that most economies are far from the competitiveness «frontier» – the aggregate ideal across all factors of competitiveness. In fact, the global average score of 60 suggests that many economies have yet to implement the measures that would enhance their longterm growth and resilience and broaden opportunities for their populations. In addition, we find that countries have a mixed performance across the twelve pillars of the index and that long-standing developmental issues – such as the lack of well-functioning institutions – continue to be a source of friction for competitiveness.

Yet there are bright spots – in the form of economies that outperform their peers and present valuable case studies for learning more about methods to implement the factors of competitiveness.

One of the realities of a modern market economy is fierce competition. Under these conditions, a business-oriented approach to management has an advantage over a functional approach, but management based on business processes cannot be effectively implemented without the use of information and innovative technologies.

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### **3.3. IMPROVING THE EFFICIENCY OF TRAINING STUDENTS IN HIGHER EDUCATION INSTITUTIONS OF AGRARIAN PROFILE IN THE SPECIALTY «TOURISM»**

In the new conditions of modernization of modern education, problems of transition to a methodologically oriented model of higher education, which forms the future specialist's ability to solve non-stereotyped professional tasks, to creative thinking, on the basis of the formation and development of general and profile specialized competencies are becoming relevant.

The problem of organizing high-quality practical training of students in higher education institutions is not new for scientific pedagogical discourse. The system complexity of the modern pedagogical process is substantiated by scientists from the point of view of the general theory of systems (V. Afanasyev, I. Zyazyun, V. Kremen, I. Poborskaya, V. Sadovsky), cybernetics (A. Berg, N. Wiener, V. Dyuk, U. Ashby), synergetics (V. Grebneva, O. Knyazev, S. Kurdyumov, A. Prigogine, O. Chaly and others). The analysis of pedagogical system, pedagogical process and pedagogical situation as objects of management was dealt with by V. Bezrukov, V. Bespalko, T. Dmitrenko, V. Kushnir, L. Rychkova, N. Talizina, V. Yakunin and others.

At the same time, the consideration of theoretical and practical scientific work proved that beyond the attention of researchers there was a complicated and multifaceted problem of modeling the pedagogical system of students training in the specialty «Tourism» in higher education institutions of the agrarian profile. The purpose of the article is to analyze and substantiate ways to improve the efficiency of students training in higher education institutions of the agricultural profile on the specialty «Tourism».

The analysis of scientific literature proved that the conditions for the successful application of pedagogical technologies are: designing an educational process with the subsequent possibility of reproduction of this project in practice; formation of the main didactic aims of education, which provides for the possibility of objective control over the quality of their achievement; structural and content integrity of educational technology; the choice of optimal methods, forms and means, dictated by the determined and regular connections of all elements of the technology; the presence of operational feedback that allows timely correction of the educational process.

In addition, the main characteristics of pedagogical technology should be considered its systemic, scientific, integrative, reproducible, efficiency, quality and motivation of training, novelty, informativeness, the possibility of replication, transfer to new conditions, etc.

The program of training students specializing in tourism, should be built in accordance with new socio-economic conditions and taking into account the specifics of the subject and product of labor in education and tourism, which is implemented in response to the demand of the tourism market, which guarantees the competitiveness of graduates.

The most important principles that should be taken into account when developing the strategy for developing a program for students in the field of Tourism are the following general pedagogical principles of vocational education: axiological (envisages creating conditions for students to understand the main task of tourism in the field of accessibility of students to values of cultural and natural heritage); content-structural principle of building a system of vocational education (reflects the priority of the formation of the content of vocational education in front of its organizational forms); systemicity and consistency as a general didactic principle of professional education; activity-oriented principle (based on the formation of the competence complex necessary for the graduate to perform future professional functions); individual motivation (reveals target development of the educational program in the context of guaranteeing employment and future career growth); continuity (involves continuous education); continuity of professional educational programs (provides free migration of a specialist in the professional educational space from initial professional training to postgraduate education), as well as the additionality of basic and postgraduate vocational education; the maneuverability of professional education programs (involves a possible change in a person, at one or another stage of life, at one or another level of professional education, in the field of professional activity or the receipt of parallel professional education); individualization of vocational education, providing his personal orientation; the integration of professional educational institutions, ensuring the activity and inter-sectoral

orientation of vocational education; optimizing the formation of the content of vocational education<sup>1</sup>.

The content of vocational education of students studying in the specialty «Tourism» should be determined by the nature of the professional activities of future specialists. The training of students in this specialty is based on the concepts of professional pedagogy and tourism.

The success of the results of students training depends on the actions of general pedagogical and specific factors for tourism education.

Therefore, the formation of the content of the educational program for the training of students specializing in the field of tourism must be conducted taking into account the main factors and new trends that are manifested both in education and in tourism: the transformation of education into the most important cultural needs of modern humans; development of the tourism industry, culture and recreation; globalization and the gradual disappearance of international borders; the spread of new technologies both in education and in the field of tourism services.

Professional education of students specializing in the field of tourism should take into account the set of achievements in the field of tourism activity of this profile. Such a task can be solved by mastering the experience of tourism activities by students. This experience consists of several components: cognitive and tourist; experience in social interaction; moral and ethical; spiritual and aesthetic; the experience of reflection; Experience of effective practical tourism activity.

Professional education in the field of tourism activity includes: timely provision of innovative information to students in the tourism sector; learning the skills of selection, interpretation of information and its effective use in decision-making processes; working out of skills of solving practical problems; development of entrepreneurial skills of students; increasing the adaptability of the future specialist and his confidence in his career.

The condition of successful professional training of a specialist is possible only if the theory and practice are combined, training on best practices, and the application of advanced educational methods in practice.

The effectiveness of vocational education of students specializing in the field of tourism depends on the success of mastering the students skills in cognitive autonomy and the ability to use the knowledge gained in a new environment.

The conditions for the successful development of future specialists in the educational program of the considered profile may be compulsory adherence to the following general pedagogical principles: a holistic approach to the content of vocational training, ensuring the transparency of the boundaries between general and vocational education, theory and practice, mental and physical labor, training and future employment; establishing partnerships between the field of education and the field of labor; realization of the direction of professional education on the development of personality, democratic values, environmental protection and the creation of new opportunities for each person; provision of students in the process of studying the general professional skills of transition from education to work; mastering competences that go beyond professional skills, the need of which is predicted by the trends of the modern educational sphere and innovations in the tourism business.

Adherence to these principles in education should promote the development of creative abilities of students, creating opportunities for maximizing disclosure of the personal and professional potential of a professional.

The processes of globalization, which are actively manifested in the modern world, affect, among others, the sphere of tourism. Consequently, students must acquire competence in the process of training, enabling them to operate in the new conditions of the modern market, including the international, as well as the market in the field of educational and tourist services.

This requires a specialist knowledge of language, culture, economy, the legal and social systems of partner countries, the observance of uniform technological and humanitarian norms. In doing so, special attention is needed to the global tourism function, related to the creation of a single statistical space of tourism and marketing of future tourist needs.

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<sup>1</sup> Zholdak, V. I. (2001). *Osnovy menedzhmentu v sporti i turyzmi: organizacijni zasady* [Fundamentals of Management in Sport and Tourism: Organizational Principles]: pidruchnyk , no. 1, p. 288.

The training of a specialist specializing in tourism should create conditions for the further development of the tourist market in our country. It should be emphasized that all of the above provisions increase the efficiency of students training, if they are taken into account when developing the tourism-training program.

The basis for the development of the curriculum of the educational program of students in the specialty «Tourism» was a competent approach. He not only defined the list of competencies, the formation of which is possible if the students successfully mastered the program, but also allowed the construction of a methodical training system for future specialists, including the construction of a main procedure for assessing the quality of the development of this program by students.

In developing the training programs for students in the field of Tourism, one must also take into account the laws of designing and designing professionally oriented learning, as well as the algorithm of action: the definition of diagnostic learning objectives; description of the expected result; substantiation of the content of training in the context of future professional activity of students; identification of the structure of the educational material, its information capacity, as well as the system of semantic connections between its elements; determining the necessary levels of mastering the studied material; development of the procedural side of learning (presentation of professional experience to be mastered by students in the form of a system of cognitive and practical tasks); the search for special didactic procedures for mastering this experience, the choice of organizational forms, methods, means of individual and collective educational activity; Identification of the logic of the organization of pedagogical interaction at the level of subject-subject relations in order to transfer students experience to new spheres of activity; selection of procedures for monitoring and evaluating the quality of program assimilation, as well as ways to individually correct educational activities.

Profile-specialized software module is combined with philosophical, communicative, civil law, historical-cultural, physical-mathematical, informational, socio-economic, natural, psychological, and pedagogical modules in professional training of a specialist.

Of special significance for the future professional activity of students in the specialty «Tourism» is profile-specialized competencies: knowledge of the basic theories and directions of domestic and foreign tourists; ability to understand, critically analyze received business information; readiness to demonstrate basic general professional theoretical knowledge about entrepreneurship in service tourism activity; professionally profiled knowledge, skills and abilities in the field of tourism business; the ability to apply in practice the basic knowledge of the theory and methods of shaping the successful activities of organizing and conducting tours; the ability to understand the principles of drafting tourist routes; readiness to use normative documents defining the cost of providing services; the possibility to apply in practice the knowledge of the theoretical foundations of management in the field of tourism service; the ability to use organizational and managerial skills in professional activities; possibility of formation of general scientific and tourist competence, detection on the basis of diagnostic indicators of levels of its formation, sufficient for future professional activity; the ability to identify the need, determine the possibility and implementation of tourism on the basis of diagnosing the needs of educational programs, interests and opportunities of students; establishment of professional contacts with specialists interested in the development of tourism in different regions, including outside Ukraine; involvement of colleagues interested in participating in tourist activity on the profile of their specialty; readiness to work in different firms, agencies, other institutions involved in the organization of tourism, participate in the work of centers that coordinate the development of various types of tourism in the region<sup>1</sup>.

In addition, the need for the formation of communication business skills necessary for the establishment and development of working contacts with the local administration, including committees that deal with education and youth, representatives of cultural institutions, sports, travel agencies, as well as the media, foreign partners on development of inbound and outbound tourism in the region. Ability to develop, promote the tourism market and implement innovative programs.

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<sup>1</sup> Mel'nik, A. O., Chaplich, I. A. (2009): Perspektivnyy rozvytku vitchyznjanogo turizmu v umovah evroatlantichnoyi ntegraciyi [Prospects for the development of domestic tourism in the context of Euro-Atlantic integration]. Visnyk Hmel'nic'kogo nacional'nogo universytetu, No 9, pp. 76-80.

Reflection of own professional activity, correction of it from the point of view of further professional improvement. Designing ways, methods and forms of competence development.

The analysis of the experience of higher educational institutions of Ukraine and foreign countries on the problems of good organization of practice confirms that it is ensured by a high level of social partnership, coherence of the activities of educational institutions and tourist organizations, the purpose of state policy, the clarity of the specified tasks, the availability of educational and production bases, and the skill of mentors. Under such conditions, it is possible to create educational structures focused on the use of market-based economic mechanisms, such as agencies, business centers that will develop innovative technologies for the practical training of students of higher agricultural educational institutions in the specialty «Tourism».

In addition, one of the conditions for the effectiveness of student training is the formation of teachers readiness for the formation of professional competencies of students of higher agricultural educational institutions, which are trained in the specialty «Tourism». It should be noted that the role of a teacher acting as an «identifier» for another person is confirmed by the thesis of the dialogue about the essence of communication between the teacher and those who learn in terms of understanding of the individual as a special individual style of culture.

The socio-cultural aspects of the teacher's work are the corresponding roles: a significant other, which creates symbolic images in the minds of those who are taught; the creative role of the teacher who forms the student's personality both intellectually and ethically.

One of the leading qualities of a teacher's personality is readiness for professional activity. Pedagogical aspects of readiness for professional activity were considered by such scholars as I. Zyazun (1997), N. Kuzmin (1980), A. Linenko (1998), I. Poluboyarina (2013), V. Tyurina (1993), O. Fedorenko (2012), R. Khmlyuk (1970), G. Yavorska (2006) and others.

Appointment - to ensure high results in the performance of any work. Readiness, according to S. Fedorenko, can be defined as a certain assemblage of the individual, which helps her to actualize and use their own opportunities for successful actions, that is, it is an internal adjustment to certain behavior in the process of educational activity, which requires an understanding of professional tasks, awareness of their responsibility, the desire to succeed<sup>1</sup>.

The theoretical analysis of the research of the problem of professional readiness testifies that this category has various psychological and pedagogical interpretations and is considered as a state of preparedness (M. Dyachenko, 1976; L. Kandybovich, 2007, etc.); a specific state (M. Levitov, 1969; B. Lomov, 1984, and others); the basis of preparedness is fixed doctrines that are formed as a result of the integration of social and individual experiences and are internal regulators of human behavior (D. Uznadze, 1966); a set of moral, psychological and professional qualities (M. Dyachenko, 1976; L. Kandybovich, 2007, etc.).

In the structure of readiness for professional activity, the majority of researchers (Yu. Babansky, 1982; M. Dyachenko, 1976; S. Goncharenko, 2013, etc.) distinguish knowledge (a set of assimilated facts, laws of science, concepts, notions about objects and phenomena of objective reality, collective experience of mankind), skills (elements of activity, the way of action, provided by a combination of acquired knowledge and skills and allows you to perform an action with high quality, accurately and correctly), skills (automated components of conscious action of man, produced in the process of its implementation a certain experience of their application in practice, a positive attitude to activity, stable motives of professional activity, the presence of professionally significant personal qualities).

These definitions allowed to clarify the concept of «readiness of teachers» to form the professional competences of students, which is understood as a holistic, complex personal formation, integrative quality of the individual, combining professional knowledge, skills, skills and personality that ensure the effectiveness of their activities, the ability to overcome difficulties, self-evaluation of the results of this work, the need for professional self-improvement.

Implementation of the readiness of teachers to form the professional competence of students should be carried out according to the following principles: facilitation (provision of students of

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<sup>1</sup> Fedorenko, S. (2016): Liberal Arts Education in the US Colleges and Universities as the Basis for Shaping Students' Liberal Culture. *Journal of Teaching and Education*, 5(1), 411–416. Available at <http://universitypublications.net/jte/0501/pdf/R5ME345.pdf>.

professional support – teachers, curators of the academic group, methodologists); dialogic interactions (the interaction of all participants is the nature of a dialogue in which each participant has equal opportunities to speak and everyone can be heard); personally oriented education and upbringing (ensuring the right to freedom of choice in the value position, the possibility of its effective implementation in the presence of an installation to overcome disharmony in interaction); consistency - phased assimilation of all structural components of professional knowledge, abilities and skills of the individual, alternate mastery of the skills of responsibility, tolerance, activity, assertiveness, etc.; continuity - the interconnection of all types of practice, when the development of the new is carried out on the basis of experience gained by students at previous stages of practical training. According to the leading ideas of the theory of activity (L. Vygotsky, 1983; O. Leontiev, 1977, S. Rubinstein 1989, etc.), scientific achievements of psychologists and teachers (V. Bezpalko, 1989; S. Goncharenko, 2003; V. Evdokimov, 2000; L. Kanishevskaya, 2011; I. Lerner, 1981; A. Linenko, 1998; V. Lozova, 2000; N. Nychkola, 1999; O. Padalka, 1996; O. Fedorenko 2008); structure of readiness of teachers to the formation of professional competence of students is considered in the unity of the following interrelated structural components: the content that combines the totality of knowledge about the essence of the basic concepts and the specifics of their formation; value-motivational as an actual aspect of professional activity, the desire to perform this activity at a high level, the ability to ensure the productive development of students, and lay the foundations for their own professional and personal growth; reflective-volitional, which involves the ability to choose a psychologically weighed decision, to become a controller's position towards himself, which contributes to a deep understanding of his own internal processes, which makes them subject to the highest spiritual powers of the individual; activity-technological, which involves the possession of forms, methods, techniques and technologies for the formation of professional competences of students of institutions of higher education of agrarian profile.

Formation of teachers readiness to form professional competencies of students of institutions of higher education of agrarian profile is defined as the totality and unity of elements of the activity of teachers, aimed at orientation of them to acquire theoretical knowledge of students and the ability to purposefully form them in the educational process of institutions of higher education of agrarian profile. This, in turn, requires the definition of criteria, indicators and levels of formation of teachers readiness for the formation of professional competences of students of institutions of higher education of agrarian profile; development, testing and introduction of the agricultural profile of the organizational and methodological support of the relevant process in the educational process of higher education institutions, as well as the verification of the effectiveness of the process of forming the readiness of teachers to form the professional competencies of the students.

Thus, the effectiveness of the training of students of higher education institutions of the agrarian profile in the specialty «Tourism» should be built in accordance with the new socio-economic conditions, taking into account the specifics of the subject and product of labor in education and tourism, which is implemented in response to the demand of the tourist market, that guarantees the employment of graduates.

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1. Zholdak, V. I. (2001): *Osnovy menedzhmentu v sporti i turizmi: orghanizacijni zasady* [Fundamentals of Management in Sport and Tourism: Organizational Principles]: pidruchnyk. no 1, p. 288.
2. Mel'nik, A.O., Chaplich, I. A. (2009): *Perspektivvy rozvytku vitchyznjanogo turizmu v umovah evroatlantichnoyi ntegraciyi* [Prospects for the development of domestic tourism in the context of Euro-Atlantic integration]. *Visnyk Hmel'nic'kogo nacional'nogo universytetu*, No 9, pp. 76-80.
3. Fedorenko, S. (2016): Liberal Arts Education in the US Colleges and Universities as the Basis for Shaping Students' Liberal Culture. *Journal of Teaching and Education*, 5(1), pp. 411–416. Available at <http://universitypublications.net/jte/ 0501/pdf/R5ME345.pdf>.

### 3.4. INFORMATION-AXIOLOGICAL TRAINING OF FUTURE AGRARIAN SPECIALISTS IN THE CULTUROLOGICAL ASPECT

To date, it has already become a recognized fact that the education crisis becomes global and significantly affects the nature of social being - mainly on the state of its spiritual and cultural component. First of all, a manifestation of this crisis was a noticeable falling interest of young people to knowledge and decline in the prestige of education in the public consciousness. Paradoxically, but at the same time, as a result of mankind's transition to a fundamentally new stage in the history of its civilization, which is increasingly acquiring the features of innovative development, there is an urgent need to overcome the crisis by significantly improving the education quality. An in-depth analysis of this crisis nature allows us to conclude that its essence lies in the incompatibility of traditional goals, content and nature of education with the new realities of the information society and the innovative type of its development. Indeed, a global gap between them requires urgent development and implementation of a new educational paradigm into practice.

E. Kuzmin<sup>1</sup> writes about the challenges and threats of the global information society, pointing out that «People need to understand who created the information and for what purpose ...», that is, modern society requires new criteria for evaluating information. Faced with a massive flow of diverse information, users of global networks are simply not able to adequately comprehend it. In this situation, an important role belongs to educational institutions. The issues of evaluation and information management, especially in the education field, are of particular relevance.

It is characteristic that the very awareness of the existence of these contradictions greatly increased the interest in the philosophy of education, revived the study of important relevant theoretical and applied aspects of modern pedagogy. Particularly acute in this case acquire the problems of higher education, which gives a person vocational training and prepares the national elite of every nation, every country. An important task that reveals the essence of the humanistic orientation of the activities of higher educational institutions is to create conditions for mutual understanding, a common vision of the problems of life, activities, etc. people in the world that has become global, and therefore the common living space of modern society.

Indeed, by and large, it is graduates of higher education who must be the heirs of the treasury of material and spiritual culture accumulated by previous generations; they have the high public mission to enrich and develop this culture and pass it on to the next generations. But at the same time, graduates of higher education are also the bearers of this culture; they largely determine the levels of spirituality in public life, the nature of life goals and values of wide sections of the population, their aspirations and interests, their moral standards, artistic tastes and ideals.

At the same time, the results of the analysis of social practice give weighty reasons for asserting that in reality the majority of high school graduates not only do not fulfill the most important tasks assigned to them, but also cannot perform them properly at all. And the entire responsibility for this situation lies precisely with the educational system, primarily at higher educational institutions and their scientific and teaching staff. Indeed, having defined for themselves the main task of carrying out purely professional training of specialists, higher education should take into account that its task should be to comprehensively prepare a young person for successful life and activities in the future information and communication society. Therefore, students should be taught to understand the logic that the information needs of an individual depend on the possibilities of perception and information processing, on the availability of knowledge about the information space structure (metainformation).

The ambiguity and complexity of the modern communication situation, when information not only expands the horizons of human development, but also actively influences the inner world of the individual, gave rise to ambiguous assessments among researchers. In particular, researchers

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<sup>1</sup> Kuzmin, E.I. (2012): Challenges and threats of the global information society as a context of library activity. Modern Library, №8, pp. 12–17.

such as K. Kinnik, D. Cregmon, G. Cameron, P. Lazarsfeld, and R. Merton confirm that people become accustomed to the turmoil of their lives and become indifferent to the world around them, lose their sensitivity and mercy. Cultural and ideological expansion acquires a wide scale and people no longer perceive good, conscience, justice as value dominants.

According to D. Kuznetsov<sup>1</sup>, in modern conditions there is a certain ideological conflict, because within the framework of a single society, not just different, but directly opposite systems of values and norms can coexist freely. It was democracy that gave a person not only the opportunity to possess a certain amount of liberal freedoms, but also put him in a situation where he simply does not know what to give priority to value.

Since the mid-1990s, work on the problem of cultural studies at various levels of education began to intensify. This problem was dealt with: L. Voronkova, S. Ikonnikov, E. Kuzmina, S. Mintz, S. Serdyuk, A. Flier, etc. The problems of developing the network society properties in general and social Internet networks in particular are of interest. Virtualization of modern society is explored by many western and domestic scientists, in particular: P. Bourdieu, V. Byul, G. Gradoselko, J. Delez, D. Ivanov, T. Karabin, M. Castells, S. Konoplitskaya, N. Korytnikova, E. Prokhorenko, S. Romanenko, I. Semenova, A. Fomin, V. Shcherbina and others. Scientists are concerned that the rational engineering and technology development planning, if it is divorced from humanistic goals and values, is capable of producing consequences that destroy the foundations of human existence.

Social networks, media and television often provide fake information. This is due to the fact that a huge flow of information is not filtered either by social community's moderators or by consumers of this information. In addition, in dense information flow difficult to distinguish fake from true information. Given this, it is important to formulate a strategy for confronting the information war for preventing the promulgation of fake information and refutation already published, said A. Kitsa<sup>2</sup>.

The virtual world is developing on the background of numerous processes penetrating the information circulation in networks: criminalization of society, decline in living standards of the vast majority of the population, destruction of cultural traditions and erosion of moral values. Today, the problem of orientation in communication channels, information becomes more accessible thanks to the unified social and communication system of the society. The problem is not only technical, but also humanitarian.

An article by A. Alekseenko<sup>3</sup> is devoted to the analysis of the situation that has developed in modern education. The author believes that modern intellectual knowledge has reached a fairly high level, while at the same time, doubtful "educational programs" for the training of various kinds of technologists are increasingly being offered. The problem situation requires an answer: how capable is such an expert for independent creative work, the ability to solve difficult problems, to find a way out of those non-traditional situations. There have been dangerous tendencies, manifested in the substitution of an inquiring mind, creative inspiration and creative work of the mind with passive assimilation of information.

As sociological and psychological studies show, only a relatively small part of the society successfully adapts to the changes caused by the network logic of the information society.

Analyzing the content, forms and methods of cultural education in an agricultural educational institution, based on the paradigms of the axiological approach.

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<sup>1</sup> Kuznetsov D.V. The role of modern communications in the formation of mass consciousness // *Philosophy and Society*. – 2004. – № 3. – P. 92–104.

<sup>2</sup> Kitsa M.O. Feykova information in Ukrainian social media: understand, see, glaring at the auditorium. URL: <https://yandex.ua/search/?text>. (date of the beast: 10.11.2017)

<sup>3</sup> Alekseenko A.P. «The Disease of the Spirit» of a modern technologized person // *Social-humanitarian vectors of pedagogical schools: materials VII International Scientific and Practical Conference, Kharkiv, 28 April 2016*, p. / KNTUSG im. P. Vasilenko. - Kharkiv: Miskdruk, 2016. - p. 26–35.



The main characteristic of the information and communication space of modern civilization in the 21st century has become the mediality as well as countless Internet resources. They have gained particular popularity among schoolchildren and students who use web services as a platform for communication in the network. Communication process associated with “virtual identity” has a significant impact on the formation of the modern social environment, the communicative space, and in general, the image of a person in the information society.

In addition, the loss of understanding by some of its representatives of the need to ensure the systemic integrity of the educational process should also be considered a characteristic phenomenon in the life of modern higher education. In our opinion, together with a completely natural desire to improve the quality of training and ensure an appropriate level of professionalism of future specialists, there is some neglect of the equally important tasks of their upbringing and personal development. And this, paradoxically, has a negative effect on the professional and social competence of graduates, on the predominance in them of the technocratic nature of thinking, the underdevelopment of creative abilities and the desire to maximize the realization of personal creative potential. One of the reasons for this situation was the lack of attention to the socio-humanitarian component of vocational training.

The essence of the humanitarization of education is in the humanization of all the knowledge generated by a specialist, the importance and necessity of them not only for production, but also for the development and self-realization of each individual within a society. Indeed, the possibility of mass higher education (today it would be more accurate to say - obtaining a higher education diploma) helps to increase the level of technological knowledge, however, the spread of technocratism as a way of thinking at the same time leads to a gradual but steady decline in spirituality and culture.

The place of the eternal universal values – is occupied by the desire for material goods, wealth and power, which also serves as a means of enrichment. Life goals are leveled, which are also associated mainly with the material aspects. In fact, what A. de Saint-Exupery once called the luxury of human communication is lost, its beauty, humanity and emotional coloring disappear from communication.

However, values – are the most important integrative basis both for an individual and for any social group, culture, nation, society, humanity. The role of values – is growing and means so much for modern man. About this G. Sperry noted: «... our current global crises are largely the result of inadequate social values and views ... that human destiny and the fate of our entire biosphere are completely dependent on those views and values, that next generations will choose ... according to which they will live and by which they will be guided»<sup>1</sup>. Therefore, we pay special attention to the axiological approach in teaching cultural disciplines.

Axiological approach is widely used in philosophy, ethics, aesthetics, psychology, sociology, cultural studies, library science and other sciences. The cultural-historical aspect of the axiological approach is determined by the role that values played and play in human life, in the historical destinies of peoples and in the history of culture. Man lives in the world of values. M. Bakhtin repeated several times: «In the absolute value emptiness no saying is possible, self-consciousness is impossible»<sup>2</sup>. Axiological rationality in humanitarian studies is justified not only as a form of research behavior, in a certain sense it is a property of the research object itself. According to A. Golubev, the principle of axiological rationality implies, in the ideal case, conscious reflection and declaration of those values that guide the research process, which, by the way, has nothing to do with the notorious principle of party science<sup>3</sup>. Today, based on the social situation of any country, values in society are divided. Values do not just change, but «break up», accompanying the process

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<sup>1</sup> Bolshakov V.P. The meaning of culture, its levels and values // Bulletin of NovSU. Ser. : Humanitarian sciences. – 1998. – p. 73.

<sup>2</sup> Bakhtin M.M. Aesthetics of verbal creativity. – M., 1986. – p. 134. – p. 134

<sup>3</sup> Golubev A.V. Ethnopolitical research in the context of the ideas of modern humanities: the problem statement. URL: <http://weblib.ssu.samara.ru/DLib/vestnik/documents/2002305011.html>



of social standardization. According to E. Toffler<sup>1</sup>, there may even be a conflict of values between different social groups. Such radical turns in the social structure are associated with the rapid acceleration of technological progress and the introduction of ICT.

The value orientations of social systems are the object of attention of society as a whole, as well as the humanities. According to researchers, the current time is characterized by the loss of many values, including the value of the information itself. Information has become publicly available and is losing its significance as a development potential. Increasingly, researchers and experts are turning to the phenomenon of «knowledge» in communication channels [4, 9]. There is a process of spontaneous formation of a new hierarchy of values of the information society. Any society has a complex process of forming values and attitudes towards them. Both an individual and society as a whole have the ability to prevent informational hazards by creating an information shield: a value system focused on the global principles of the safety of human activity. Therefore, for human survival, adaptation to modern conditions, it is necessary to form an internal information board, which does not allow harmful and redundant information into the information environment.<sup>2</sup>

One of the communication channels that translate values from society to the individual is education. It becomes a form of human existence in the information society. This trend is indicated by the expansion of the communication space and reflects the movement of the communication means of modern culture towards a person, enhancing his communication needs, realizing the features of interpersonal communication, forming the context and means of communication feedback.

At present, the communication content of the channels is kept on documentary and electronic channels. The choice of channel and means of communication depends on the advantages and disadvantages of the means of communication and their capabilities, as well as filling information. A completely adequate situation in the field of education is the priority of electronic communication. A new generation of students has grown in an electronic environment.

If earlier the global network was used exclusively as a medium for transferring files and e-mail messages, today it is used to solve more complex problems of distributed access to Internet resources. No matter how the search tools are improved and changed, the ever-increasing volume of the information array needs an orderly system for accessing and using information and knowledge. In this context, readiness for intercultural communication is considered by us as an essential aspect of human personality ready for full-fledged social interaction. An important role in this can have a library. A modern library can create conditions for personal development, including the formation of readiness for intercultural communication as the most important factor in its full socialization and self-realization in society. After all, young people in modern conditions hard had given the right choice in life. In order for a student to freely navigate in the products and services provided by the university library, he must have certain skills and abilities to work with library products and reference and bibliographic apparatus. These skills should be mastered in the course «Student Information Culture». This course is aimed at developing skills in working with catalogs, databases, culture of information retrieval in the general array of documents. The course also provides for the student to understand the essence of the information culture both needed and necessary for him in future activities at senior courses and his information culture as a future qualified specialist.

All-consuming dynamism, constant variability of the environment, value reference points - all this is characteristic of a modern civilized society and, of course, «dictates the conditions» in which the educational process takes place. In the Ukrainian society, due to the specificity of its current development, the general civilization tendencies were superimposed by their own, home-grown, associated with a cardinal change of the former soviet norms, stereotypes, guidelines and values. Each of today's students is a peculiar heir to the previous culture of mankind, having the right to choose from the diversity of its moral, political, ideological, aesthetic and other values. However, by objective living conditions, they have already been placed in a limited circle of possibilities,

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<sup>1</sup> Toffler A. The Adaptive Corporation. Aldershot : Gower, 1985. Ibid.

<sup>2</sup> Grabar N.G., Sokolovskaya TB The mission of libraries in the conditions of electronic information revolution. Bibliotechny forum of Ukraine. – 2012. – № 2. – p. 8–11.

conditioned by genetic, and socio-political, and national, and economic, and other factors. Today's «time of trouble» significantly complicates such a choice. Surrogates of other cultures, products of mass culture, simplified primitive values are being imposed quite successfully by young people.

Note that the limit of social media's negative impact on young people is individual for each user of the network and depends on the free choice of the individual, as well as on the level of development, social (real and virtual) connections, skills to quickly and plastically perceive, analyze, absorb media texts, and also the abilities and skills to acquire new knowledge in the media space and it is logical and expedient to use them without harming oneself, the society as a whole. We are deeply convinced that these tendencies can be broken not by the usual way of «enhancing educational work», but by introducing new educational goals, the content of which should be to instill in every student a deep inner need for spiritual culture and thinking culture, understanding humanistic content and purpose of both knowledge and technology. It is even more important to form their desire for creativity and independent learning, understanding of the intrinsic value of education and knowledge, their inseparability from culture.

An important factor in the formation of a general culture is cultural studies, which are mainly implemented in the higher education system. Culturological training combines a set of academic disciplines, a system of educational activities that are aimed at an active life position.

The Department of Cultural Universals of the Kharkiv Petro Vasylenko National Technical University of Agriculture closely interweaves long-standing traditions in innovative forms of work with students. Students receive knowledge in the following subjects: «History of Ukrainian Culture», «Cultural Studies», «Professional Ethics», «Corporate Culture», both in the classroom and out-of-class form. We use various forms of material presentation: lectures, seminars, interactive debates, situational role-playing games, «round tables» allow us to implement both didactic and educational goals. During such classes, the teacher gives students the opportunity to exchange views, express their views on certain problems, situations, tolerate opponents and students from other countries, their culture<sup>1</sup>.

The lecture as the leading form of organization of studies in a higher educational institution is designed to form the basis of knowledge for students in a specific scientific field, as well as designate the direction, main content and nature of all types of studies and independent work from the relevant academic discipline. An important task of the teacher is to activate the mental and communication activities of students. Technical teaching aids (visual, sound) enhance the didactic possibilities of visualization of educational information. At the same time, the student not only listens attentively, but also takes part in the discussion of problematic, debatable questions at a special time.

The lecture-visualization helps students transform the lecture material into a visual form, which contributes to the formation of their professional thinking by systematizing and highlighting the most significant, essential elements. Using videos during a lecture allows students to develop an interest in a particular topic. The most common form of teaching material is multimedia presentations. The use of multimedia contributes to the development of diverse personal inclinations, especially mental (attention and memory).

Other forms are no less popular, in particular: lecture-conversation and lecture-discussion. They help students more clearly understand the problem, get answers to difficult to understand questions. Situational role-playing games are popular with students. During the game, the teacher determines the semantic line of analysis of a theoretical problem or practical situation, raises additional questions and poses a problem. He calls on all participants in the game in an atmosphere of goodwill, mutual aid and equality. The classes are completed by summing up, where they are noted on the content and feasibility of the psychological and methodological plan.

Extracurricular activities require considerable organizational preparation, but always bring the desired effect. Classes-excursions (museums, theaters of the city, exhibitions, excursions,

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<sup>1</sup> Mazorenko M. O., Grabar N.G. Innovatsiyni form vkladannya culturological disciplines // Problems of development in vichy agrarian primary schools and phylosophical ambush of izvyazyannya: materials for the round table, Kharkiv, 22–23 kv. 2010 r. - X.: Miskderuk view, 2010. - p. 185–190.

memorials), the purpose of which is to familiarize students with the cultural and historical heritage of the Ukrainian people, is realized by the formation of components of the axiological, normative and emotional-psychological order. Such studies also help to link theory and practice. The result of classes is a review of what they see in which students express their feelings and sensations.

Thus, the culturological cycle of disciplines is an effective factor in shaping the human culture along with the general individual socialization. The introduction of the humanitarian component in the educational process allows to increase the level of creative knowledge of students, to form national values, the rules of cultural behavior of the individual. The characteristic features of the information technology paradigm (network logic, flexibility, communication permeability, etc.) require qualities such as information tolerance and information activity from students.

Effective methods of mastering students of educational institutions of the agrarian profile of the humanities disciplines of the culturological cycle require a serious and responsible attitude to the theoretical positions of these academic disciplines. If the information environment is organized taking into account the basic laws and laws of the functioning of information processes, the main methods of transforming information into knowledge, then a new educational environment will be formed rationally and purposefully.

New conditions of education dictate the paradigms of the axiological approach. To familiarize students with the strategy of using innovative technologies in the educational process, it is necessary to formulate their ability to manage information resources and communication technologies. Forms and methods of pedagogical work contribute to the formation of a valuable attitude to information: conversations, consultations, individual work with the establishment of interpersonal contacts, lectures, cultural and educational activities.

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### **3.5. THE IMPACT OF PUBLIC ADMINISTRATION ON THE PROVISION OF SOCIO-ECONOMIC DEVELOPMENT OF THE REGION**

The problem of reconciling the social and economic interests of the region has always in the attention of leading scientists and specialists. As a rule, inefficient public policy is primarily reflected in the inefficient use of resources. For example, in countries characterized by strong oligarchic influences, underdeveloped civil society, the availability of significant natural resources does not ensure a decent standard of living and a correspondingly high level of socio-economic development. Ukraine undoubtedly possesses sufficient natural-resource potential, capable of ensuring the proper standard of living of the population. However, years of independence have convinced that no power system has been able to transform the use of available resource potential into stable indicators of socio-economic development. In fact, today there is a situation where at least the minimal rates of economic growth are provided by the resource-oriented production and export specialization of the national economy of Ukraine. However, this state of affairs contradicts the concept of development of the leading states of the world and widens the gap in the dynamics of development between our country and leading economies.

The current state of economic and social growth of the regions is determined by the need to formulate a comprehensive and systematic approach to ensure their balanced development. This approach should not only ensure effective economic development, but also create conditions for improving the well-being of the population of the regions. The strategic goal of Ukraine's state policy should be to ensure balanced development of regions based on a combination of economic and social components of growth. Thus, the effective solution of the problems of the regions depends on the development of effective state development programs, which should be based on a comprehensive analysis of their potential, a general assessment of their development opportunities and identification of the main directions of socio-economic growth.

Various aspects of ensuring the socio-economic development of the region have been discussed for several centuries by both theorists and practitioners. But despite such substantial scientific work, some theoretical and practical bases for determining the impact of public administration on regional development remain poorly understood. In addition, many management decisions remain formal and politically involved. Thus, the lack of activity of territorial communities in solving problems of socio-economic development of territories is one of the main problems that hinder the dynamic socio-economic development of the regions of Ukraine. Therefore, given the need to implement a real concept of regional development, it is an important and extremely urgent issue to identify the dependence of the socio-economic development of the region on the quality of public administration and determine the strength of its influence.

Despite various initiatives to improve governance mechanisms, public administration in the country is carried out in a functional format. Every year, this model of government work becomes less effective, as serious issues remain to be resolved, including: overloading of targets due to lack of consistency and consistency, unnecessary governmental functions and excess regulation, bureaucracy, lack of important and much-needed public administration competencies and management, etc.

In turn, important steps in the context of the modernization of public administration in Ukraine are the implementation of appropriate reforms and the adoption and implementation of certain initiatives. Yes, the reform of public administration is a priority for the Government, since the activity of public institutions and the quality of the decisions taken affect the economic growth in the country and the standard of living of the population. That is why the Public Administration Reform Strategy of Ukraine for 2016-2020<sup>1</sup> aims at ensuring effective public administration - the availability of modern structures, proper procedures for policy formulation and development of legislation, professional civil service, clear and transparent mechanisms of accountability of

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<sup>1</sup>Report on Implementation of the 2016-2020 Strategy of Public Administration Reform in Ukraine in 2018. [Electronic resource]. Available at: [https://www.kmu.gov.ua/storage/app/sites/1/reform%20office/03\\_zvit\\_eng\\_web.pdf](https://www.kmu.gov.ua/storage/app/sites/1/reform%20office/03_zvit_eng_web.pdf).

institutions. According to the Concept of Public Administration Reform in Ukraine, the purpose of the reform is to create an effective public administration system that will provide quality public services to citizens at a level that meets European standards, ensure optimal use of public funds and will be able to respond timely and adequately to socio-economic, external, political and other challenges<sup>1</sup>.

Exploring the perspective directions of development of the public administration system of Ukraine at the present stage<sup>2</sup>, we can note such characteristic features that reflect its environment and the main causes of change and transformation.

1. There is a dominance of value chaos (corruption of officials and public authorities and local self-government has institutional character), lack of responsibility for mistakes and crimes in the management by civil servants, underdevelopment of the state corporation, which in the end gives rise to even more problems state structures.

2. The new generation of management technologies in public administration is becoming less applicable to traditional hierarchical structures, but the failure to apply them in the long run will weaken the country's competitiveness and serious losses of efficiency. In addition, it is necessary to take into account the fact that the capabilities of a linear-functional public administration system are designed to use traditional administrative-command methods.

3. The creation of a qualitatively new model of public administration through the introduction of business methods in the activities of executive authorities is partly explained by the urgent need to accelerate economic growth. Therefore, there is logic of the process approach, which underlies the automation of the activity of state structures, thus acting as a catalyst for the development of new platform solutions that will in the future determine the nature of interaction of the state with the citizen and society.

Therefore, in the context of the recommended implementation of a process approach in the public administration system, the use of models and methods of quality management becomes relevant, in this connection, the principles of Edwards Deming, consisting of 14 points of changes in traditional management, need special attention. When viewed in the light of the contemporary challenges of improving public administration and put into practice, it becomes possible to define clearly the strategic orientations and perspective directions of further administrative transformations in the country.

Given the particular relevance of issues of improving the level of regional development and improving the efficiency of public administration, a methodological approach to determine the impact of public administration on ensuring the socio-economic development of the region is proposed.

The peculiarity of this approach is the use of a sufficiently large number of methods of analysis (taxonomic, regression and fuzzy sets), which will allow to further predict the level of social and economic development of the region, taking into account the existing level of quality of public administration, and more correctly justify the priority directions of development of the regions.

Therefore, the process of determining the impact of the quality of public administration on ensuring the socio-economic development of the region takes place in the context of three consecutive stages. The first stage is an integrated assessment of the level of social and economic development of the region, which is proposed through taxonomic analysis<sup>3</sup>. To accomplish this stage, it is necessary: to determine and select indicators for assessing the socio-economic development of the region; to substantiate the stimulus and the destimulants indicators; to

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<sup>1</sup>Kontseptsia reformuvannya publichnoyi administratsiyi v Ukrayini [Electronic resource]. Available at: [http://www.pravo.org.ua/files/stat/Concept\\_public\\_administration.pdf](http://www.pravo.org.ua/files/stat/Concept_public_administration.pdf).

<sup>2</sup>Charkina, E. S. (2017): Razvitie proektnogo podhoda v sisteme gosudarstvennogo upravleniya: metodologiya, opyt, problemy [Development of the design approach in the state system management: methodology, experience, problems]. Nauchnyy doklad. Moskva: IE RAN, 54 p.

<sup>3</sup>Pljuta, V. (1989): Sravnitel'nyj mnogomernyj analiz v jekonomicheskikh issledovanijah [Comparative Multidimensional Analysis in Economic Studies]. Finansy i statistika, Moskva, 175 p.

standardize the values of the elements of the observation matrix; to build a point of reference for the level of socio-economic development; to calculate an integral indicator of the level of social and economic development and to rank the regions.

A set of initial indicators was formed in the context of such important components as: cost-effectiveness; investment development and foreign economic cooperation; financial self-sufficiency; development of small and medium-sized enterprises; openness of government and accessibility to administrative services; labor market efficiency; infrastructure development; renewable energy and energy efficiency; accessibility and quality of education services; accessibility and quality of health care services; social protection and security; sustainable use of the environment and quality of the environment. The reason for this choice of indicators is explained by the availability of open statistical information on the website of the State Statistics Service of Ukraine<sup>1</sup>, the Ministry of Economic Development, the Ministry of Regional Development, the Ministry of Finance and the Main Directorate of Statistics in the oblasts.

It should be noted that among the whole set of indicators, the destimulants are the following: rate of increase of tax debt on taxpayers' monetary liabilities without taking into account tax debt of taxpayers in bankruptcy proceedings<sup>2</sup>; the number of population per employee of the administrative services center; ratio of registered unemployed to population<sup>3</sup>; the amount of payroll arrears; the rate of increase in wage arrears; the rate of increase of public debt on payment for housing and communal services; volumes of fuel and energy resources consumed in the region during the reporting period per capita of the region; the total mortality rate per 1,000 population of the existing population<sup>4</sup>; the number of patients diagnosed with active tuberculosis per 100,000 people for the first time in their lives; the number of families (persons) in difficult life circumstances covered by social services, including the families of participants in the anti-terrorist operation and internally displaced persons<sup>5</sup>; the share of orphans and children deprived of parental care being brought up in family forms of upbringing in the total number of children in this category; the number of criminal offenses committed against the life and health of a person per 10 thousand people; the rate of increase of pollutant emissions by stationary sources of pollution per unit of population; rate of growth of pollutant emissions by mobile sources of pollution per unit of population, percent to the previous year. All other indicators are stimulants.

The second stage involves the sequential implementation of the following actions: choosing an approach to solve the decision-making problem under uncertainty; defining and substantiating the criteria for assessing the quality of public administration; public management quality score calculation.

It should be noted that to solve the problem of decision-making under uncertainty, many approaches are used, among which the most common is the fuzzy set method. The founder of fuzzy set theory is L. Zade<sup>6</sup>. The essence of this theory is the ability to operate with "linguistic" variables, the values of which are expressed in words or sentences of natural or formal language.

Given the purpose of the study and the current conditions of certain subjectivity of information and uncertainty, the method of fuzzy sets was chosen to assess the quality of public

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<sup>1</sup>Ofitsiyni sait Derzhavnoi sluzhby statystyky Ukrainy [Official website of the State Statistics Service of Ukraine], available at: <http://www.ukrstat.gov.ua>

<sup>2</sup> Vasiliev, O. V.; Fisun, K. A. (2010): Menedzhment rehional'noho rozvytku: monohrafiia [Regional development management]. KhNAMH, Kharkiv, 375 p.

<sup>3</sup>Korniets'kyj, O.V.; Hats'ko, A.F.; Ostroverkh, O. V. (2016): Rehuliuвання sotsial'no-ekonomichnoho rozvytku rehionu, iak vazhlyvyj chynnyk derzhavnoho upravlinnia [Adjustment of Socio-Economic Development of the Region as an Important Factor in Public Administration]. Visnyk Kharkivs'koho natsional'noho tekhnichnoho universytetu sil'skoho hospodarstva imeni Petra Vasylenka, no. 174, p. 67–73.

<sup>4</sup>Raievnjeva, O. V.; Holiiad, N. Yu. (2007): Modeliuвання antykrizovoho upravlinnia rehionom : monohrafiia [Modeling of crisis management in the region: a monograph]. KhNEU, Kharkiv, 300 p.

<sup>5</sup> Savostenko, T.O.; Propuga, V.I.; Polskaya, I.E. (2009): Zabezpechennia sotsial'no oriientovanoho rozvytku rehioniv Ukrainy [Provision of socially oriented development of the regions of Ukraine]. NADU, Kyiv, 40 p.

<sup>6</sup>Zade, L. A. (1976): Ponjatie lingvisticheskoi peremennoi i ego primenenie k prinjatiu priblizhennykh reshenij [The concept of a linguistic variable and its application to the adoption of approximate solutions]. Izd-vo «Mir», Moskva, 165 p.

administration. Its main advantages are: the ability to take into account many valuation factors; versatility of this technique; the expert's right to the uncertainty that is taken into account. Thus, the theory of fuzzy sets makes it possible to calculate the degree of belonging of an element to a subset (ie, the element may belong to a subset to a greater or lesser extent)<sup>1</sup>.

It should be noted that the basic component of fuzzy set theory is the membership functions constructed using the term-set of values and the linguistic term-factors. Thus, term-sets of values of linguistic variables of quality of public management are presented in table 1. As input parameters of the fuzzy inference system, 5 fuzzy linguistic variables are proposed: efficiency, effectiveness, administrative feasibility, justice, political feasibility, which are the criteria for evaluating public administration. The fuzzy linguistic variable "quality" is the initial parameter. Each score in the table should be defined on a consistent ten-point scale, which should be interpreted as "low", "medium", "high".

*Table 1. Term-sets of values of linguistic variables of quality of public management*

The variable	Linguistic essence of the variable	Term evaluation	Universal set
R	efficiency	low, medium, high	[0-10]
E	effectiveness	low, medium, high	[0-10]
A	administrative feasibility	low, medium, high	[0-10]
C	justice	low, medium, high	[0-10]
P	political feasibility	low, medium, high	[0-10]

The analysis of the criteria of quality of public administration with the use of expert-linguistic information and rules "if- then" allowed obtaining fuzzy logical equations of influence of linguistic variables. Thus, if performance, efficiency, administrative feasibility, justice and political feasibility are identified as high, it is appropriate to recognize the high level of quality of public administration in the region. If, on the contrary, the criteria for assessing the quality of public administration are set as low, then the overall score will also be low.

Considering the fact that the purpose of this article was to determine the influence of the quality of public administration, the level of which in the regions it is proposed to implement using fuzzy sets theory, to ensure the socio-economic development of the region (the integral indicator is obtained as a result of taxonomic analysis), the essence of the third stage is just identifying the relationship between the quality of public administration and the integrated index of socio-economic development of the region. Therefore, it is suggested to use a trend projection method to determine whether there is a correlation between indicators and for forecasting purposes. His choice will allow eliminating a number of disadvantages of other methods, among which: application of the method of exponential smoothing only in relatively stable conditions of development of the system without sharp changes of factors of influence of external and internal environment; simplicity of the moving average method for accurate forecasting and the like.

It should be noted that before constructing the trend models, it is necessary to correctly select the type of equation that will provide the highest accuracy of approximation, which largely determines the quality of the forecast. Thus, the most applicable are<sup>2</sup>: linear ( $y = a + bx$ ); power ( $y = ax^b$ ); logarithmic ( $y = a \ln(x) + b$ ); exponential ( $y = ae^{bx}$ ). To build a trend model in MS Excel environment based on time series data, it is necessary for each region to draw a point diagram using a set of trend models – linear, power, exponential and logarithmic.

It should be emphasized that the type of trend model with  $R^2$  close to unity provides the highest accuracy of approximation and allows obtaining the most accurate prediction. Therefore, the creation of these models will provide a determination of the projected level of ensuring the socio-

<sup>1</sup>Savin, G. I. (2000): *Sistemnoe modelirovanie slozhnyh processov* [System modeling of complex processes]. Finansy i statistika, Moskva, 276 p.

<sup>2</sup>Voloshyn, O. F.; Maschenko, S. O. (2010): *Modeli ta metody pryjniattia rishen'* [Models and methods of decision-making]. Vydavnycho-polihrafichnyj tsentr «Kyivs'kyj universytet», Kyiv, 336 p.



economic development of the region, taking into account the existing level of quality of public administration.

Thus, a methodological approach is proposed to determine the impact of the quality of public administration on the socio-economic development of the region, which, unlike the existing ones, requires the implementation of the following steps: 1) an integrated assessment of the level of social and economic development of the region through taxonomic analysis; 2) determining the quality of public administration using fuzzy set theory; 3) identifying the relationship between the quality of public administration and the integrated indicator of socio-economic development of the region using the trend projection method. Its application will not only reduce the number of indicators of the socio-economic development of the region to one and give a clear assessment of the current situation in the region. It also determine the level of influence of the quality of the application of appropriate administration tools and facilitate future management decisions in the context of ensuring effective socio-economic development of the region.

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### 3.6. LINGUISTIC PRACTICES AS ANTROPOTECHNIQUE IN THE CONTEXT OF INFORMATIVE MODERNITY

The last decades have been marked by intensive processes of transformation of all spheres of society's life. According to the researchers we are talking about the formation of an information society where the media fill the entire socio-cultural space. More often the scientists have turned to new paradigms among which a special place is occupied by the «communicative revolution», «communicative reality». It is about transformation of existing forms of communication and the transformation of reality which begins to act as a flow of information. This situation is accompanied by some changes in cultural values existing patterns of behavior as well as speech concepts. From now language has not only oral or written forms but now a transition happens to language in the context of mediareality as a media turn phenomenon. As emphasizes V. Savchuk (1)<sup>1</sup> in modern philosophy the researcher reveals various turns the number of which constantly grows: ontological, linguistic, iconic, medial, anthropological and others.

The text is the subject of the study of many sciences – linguistics, rhetoric, semiotics, logic, cultural studies, psychology and philosophy. The problem of the text in the conditions of the information society is considered in the writings of M. Castells, M. Webster, W. Eco, C. Lesch, E. Toffler, M. Ulbec, N. Nosov, C. Horuzhy, A. Carmin, D. Ivanov, B. Mironov, O. Astafyeva, A. Voyskunsky.

Modern scientific realities associated with the emergence of virtual reality, network society, the Internet and computer became the subject of philosophical and cultural analysis proving the medial turn. Back in the day according to R. Rorty a linguistic turn signaled its appearance in a collection under the same name in 1967. That analysis of conceptual matrices for decades has determined the refusal to understand reality from the standpoint of immobility («Everything is language») emphasizing that it is not only a way of describing the world but the world itself is revealed to a man as language (Lyotar).

Linguistic themes in the reflections of analytical philosophy for a long time remained the main thing. The latter focuses on language that not only speaks but also thinks itself.

In the context of the intensive development of communication technologies hypertext systems are widely used in the information space of modern society which has a significant influence on modern culture transformation. According to the researchers this influence is not unambiguous both positive and pessimistic views are expressed on the further development of society. There is a dilemma: an increase in the level of interaction between the intelligence of the man-machine complex (Steopin) or the absence of any significance of these systems for the «Gutenberg galaxy» (MacLuen).

In recent decades in the scientific thought mediation is understood as the process of information transfer at all stages of human development (from rock painting to the most advanced information and communication technologies, global information networks) (S. Lesh). However as V. Savchuk emphasizes in the modern information space media is no longer a technical intermediary but an environment itself a reality of experience and consciousness. It is a medial turn.

The formation of a modern information society is accompanied by a new attitude of man to the world, the development of new forms of rationality, improvement and the emergence of new means and forms of communication. For almost all generations of philosophers turned to their own language vision while expressing their questions in various perspectives. A careful look at the philosophical understanding and interpretation of language led to the appearance in a philosophical thought of a separate direction or section – the philosophy of language. Language is a historically evolving phenomenon. In the conditions of technologicalization of the society, technologicalization of language took place. M. Foucault defined this process as the emergence of «language machines». «Machines of speech» on his opinion are functional possibilities means of «conservation and exchange of texts» (2)<sup>2</sup>. This is an instrumental language that exists along with writing, oral, natural and artificial.

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<sup>1</sup> Savchuk, V. V. (2013): Fenomen povorota v kul'ture XXIveka. Mezhdunarodnyy zhurnal issledovaniy kul'tury.

<sup>2</sup> Mishel', F. (1994): Slova i veshchi Perevodchiki

Language according to research scientists performs in culture three functions: reproduction of culture (M. Gadamer), communicative action (Yu. Habermas), socialization (M. Mead). Modernity is characterized by new information technologies, ambiguity and pluralism of information, distribution of information for the benefit of society. In this situation one can not but agree with the thoughts of the famous researcher S. Lesch (3)<sup>1</sup>. The latter highlights the following general features of the information society: firstly the uncontrolled dissemination of information flows. Secondly the assertion of the relevance of only the present which concentrates around communication as a result of which society becomes more mobile and loses a stable relationship. Thirdly there is the disorientation of a person which is associated with the loss of those ideological concepts that were provided by traditional notions. Fourthly the post-human post is formed. These features are directly embodied in hypertext in its modern configuration.

It should be emphasized that in the scientific literature there is a thought that hypertext appears in culture much earlier than the emergence of information society, information reality. And in this context hypertext includes books, reference books, encyclopedias, and even the Bible. This kind of hypertext U. Eco expresses as text hypertext (4)<sup>2</sup>.

It is in this context that there is an urgent appeal to Skovoroda's speech practices. Note that the linguistic analysis of the heritage of G. Skovoroda is provided both in Ukrainian linguistics and in foreign publications. But it concerns morphology, vocabulary, phonetics, the style of word-formation, the use and borrowing of words from other languages etc. Linguists have comprehensively analyzed and are analyzing the G. Skovoroda's language but with regard to the philosophical context of language the researches are almost absent.

Y. Sherekh (Y. Shevelov) the world-famous linguist noted that G. Skovoroda fulfilled a linguistic revolution. His literary heritage has absorbed elements of such languages as Church Slavonic, Ukrainian, Normative Russian, Latin, Greek, and other languages of the East and West (5)<sup>3</sup>. The talk is about the multilingualism of G. Skovoroda and his speech polylinguism. This situation provides the opportunity for its multilingualism in the context of innovations regarding to the current language situation. This is due to the fact that modernity requires new theoretical and methodological means of language analysis in philosophical discourse. This analysis is not possible in the context of the domination of some ideology.

A new aspect of G. Skovoroda's analysis of language is seen in its interpretation as an activity and as an action. Such studies are based on new philosophical concepts: speech actions, speech practices, speech games, speech consciousness, speech reality, speech strategies, communicative action, etc.

Understanding the language and the word as «action» opened up new aspects of language analysis. The key concept of the theory of D. Austin appears as a matrix of application in the philosophy of language of the concept of «speech practices». Language is interpreted as what people do with words in specific socio-cultural contexts. And in this sense it is very important to think of L. Wittgenstein about the diversity of types of speech activity and the variety of functions that can perform the same word. D. Austin and L. Wittgenstein introduce new concepts in the philosophy of language which are dominant: «speech games», «speech actions».

M. Heidegger continuing their thoughts argues that language itself is not a product but an activity. He primarily focuses on the special features of language which relate to the inner activity of spirit. Such in this is seen the «treasure» of Skovoroda's speech practices: the inner activity of the spirit.

According to the analysts of language the interrelation of language and action its use for the analysis of speech processes is a significant progress. And it is impossible to disagree with this. Language acts as a present in conversations, listening, correspondence, translations, writing of various works, messages and appeals. Language is the action coordinator.

In language reviews the use and appeal to the concept of speech practice which has a varied manifestation is becoming increasingly commonplace. To them researchers in the philosophy of language include speech games, hybrid speech practices, informational, written and spoken. This

<sup>1</sup> Lash, S. (2002): Critique of information.

<sup>2</sup> Eko, U. *Ot Interneta k Gutterbergu: tekst i gipertekst*.

<sup>3</sup> Sherekh, YU. (2012): *Porohy i zaporizhzhya*, s.404.

list can be extended which indicates the transformation of both language and speech practices. The linguistic space of the modern era is changing. Speech practices as an action have not yet been investigated sufficiently broadly although of course they also play an important role in the communication process both at the individual and in society life. Linguistic practices realize our goals, thoughts, desires and directions (6)<sup>1</sup>.

Let's also pay attention to the understanding of speech practice as anthropological technique. It is about the ability to communicate, share experiences, feelings, store and transmit information, promote socio-historical development, means of world perception. Linguistic practice is an integral part of human life / being. Coincidentally M. Heidegger defined his position as follows: «Language is the home of my being». The change of life / being is embodied in speech practices. This trend in philosophical studies is only gaining momentum because the modern era has become a kind of challenge to the past. Linguistic practices as anthropological techniques prove that the type of person is determined by civilization and «technologies» of socialization (7)<sup>2</sup>.

Linguistic practices reproduce not only linguistic reality. Man from his birth is in language and social space. Since his birth a person uses speech practices as a means of communication and action. These practices encourage different kinds of activities provide the opportunity to construct or reconstruct reality in its varieties. Analysts of the philosophy of language offer a somewhat unconventional understanding of both language and speech practice: these phenomena have a non-linguistic component which include mental and physical processes and events as well as technological ones. We are talking about the transformation of the classical linguistic paradigm which was aimed at analyzing how we talk about the world and how we are thinking about the very reasoning.

M. Foucault put forward the thesis that different states of human life are connected and reproduced in language practices. The philosopher analyzing friendship as a way of life understands it as a way to escape the power of the Symbolic. The direct leader of such escape from power in his opinion is language as a special language practiced in friendship. Here we have a phenomenon and language game. This very concept of language game – parrhesia – gives the opportunity to understand in general the «phenomenon of Foucault» (B. Markov) and his philosophical thought.

In order to analyze Skovoroda's speech practices the letters of the philosopher to his pupil and friend M. Kovalinsky which were issued separately in 2012. The letters were published by National Literary and Memorial Museum. The editor was Professor L. Ushkalov. The letters were written by G. Skovoroda from 1762 to 1794 in Latin. The most intense correspondence occurred in 1762–1764 when M. Kovalinsky was sent 72 letters. L. Ushkalov describes correspondence as a «spiritual novel» that lasted several decades (8)<sup>3</sup>.

Published letters is a substantial contribution to the «Skovorodiniada». As a metaphor it means competent and artistic and literary works, video works, sculptures, museums dedicated to the famous philosopher and poet, teacher and theologian, «the Ukrainian national genius» according to Tabakowska. «Skovorodiniada» based in Kharkov with the advent of the cultural life of Slobozhanshchina («Ukrainian Bulletin» in 1816). In the April issue of the journal appeared the recognition of G. Skovoroda in the cultural life by V. Maslovich. The last called the Ukrainian thinker and Kharkiv philosopher as Stoic Diogenes (9)<sup>4</sup>.

Why V. Maslovich characterized Grigory Skovoroda as a «stoic philosopher»? Because of his life credo coincided with the life principles of the Stoics. The Stoics believed that the meaning of life was a harmonious unity of the world of nature and man. In their opinion such unity promotes harmony and peace of the spirit. These principles G. Skovoroda followed all his life.

Dmitry Chizhevsky a historian of Ukrainian philosophy noted that from that time the Kharkiv and the Ukrainian «Skovorodiniada» started. Continuing the idea of the famous historian of philosophy we note that in our time «Skovorodiniada» acquired international and intercultural values.

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<sup>1</sup> Linhvopravova kartyna svitu: suchasni problemy linhvistyky ta inshomovnoyi dydaktyky : monohrafiya.

<sup>2</sup> Markov, B. V (2008): Filosofska antropologiya: ucheb. posobiye dlya vuzov, s. 147.

<sup>3</sup> Ushkalov, L. (2012): Istoriya odniyeyi druzhby. Skovoroda H. Lysty do Mykhayla Kovalyns'koho, s. 3.

<sup>4</sup> Ukrainskiy vestnik na 1816 god. Chast' vtoraya. Mesyats aprel'. Ukrainian Bulletin for 1816. Part two.

One of the areas of «Skovorodiniada» is an appeal to linguistic features of creativity of the philosopher.

The analysis of Skovoroda's speech practices in the philosophical context is almost absent and therefore requires careful study. The letters show the richness of speech practices since G. Skovoroda and M. Kovalinsky freely owned several languages. Both of them knew Latin and Greek, language of the Holy Scripture as evidenced by the correspondence but also emphasize «acted» in these languages. These languages became communicative actions, means of communication, reproductions of that era, a certain environment and historical conditions. The letters reveal the mental activity of G. Skovoroda and M. Kovalinsky (10)<sup>1</sup>. The conversation of the soul with the soul is a feature of Skovoroda's speech practice proceeding from its position on the second «inner nature» of man. Knowing a number of foreign languages the philosopher used a variety of speech practices, speech actions but in the correspondence he preferred the use of Latin speech practice (10)<sup>2</sup>.

The letters of the philosopher represent us a special inner world of his life first of all spiritual inner, existential. Using a variety of speech practices he defined his existential states: friendship, anguish, love, amount, joy, respect, sorrow, etc. Note that G. Skovoroda's speeches give his inner nature.

Conversation and correspondence are the main language of the speech. This was repeatedly highlighted in the letters. «Conversation with a Missing Friend» is a feature of speech practice. It was compared by G. Skovoroda «with listening of more pleasant musical instrument». The philosopher aspires to Kovalinsky's «nice conversation».

He sent poems to M. Kovalinsky by Latin, made translations, interpreted texts. That's why the letters had frequent references to the works of famous scientists, philosophers, writers and Rome artists. They were presented as expressions, poems, epigrams, provision of works and Latin authors. G. Skovoroda in letters to M. Kovalinsky used the works of Horace, Ovid, Cicero, Plutarch, Virgil, etc.. Especially frequently in his letters he referred to the works of Plutarch as a sample of classical Latin literary language from the point of view of today's philosophy of language they are the written speech practices.

In the comments to the letters that made by L. Ushkalov it is highlighted the wide use of the speech practices of Latin language. Note that it is not just about knowledge of language and how language is used and as language becomes an action and an action becomes it in conversations, in correspondence, in essays, in translations. It is in this sense refers to the practice of speech or verbal action on the practical meaning of language.

In early correspondence (July 1762) G. Skovoroda sent to M. Kovalinsky a notation in Greek which provided the following tips:

- 1) «The best guide in old age is wisdom»;
- 2) «Sacred love of virtue»;
- 3) «Having friends, consider that you own a treasure»;
- 4) «Lovely is difficult»;
- 5) «The short path to evil» (10)<sup>3</sup>.

It is believed that he filed a brief moral code to be observed and performed by every person. These sentiments he translated from Greek into Latin and used the intersection and speech practices. In letter No. 29 he recalled the statements of Aristotle from the «Big ethics» (book 2). In the letter No. 43 provided with translation of the Greek poem in Latin it was translated from the «State» of Plato. There is a link with works of the sophists Diogenes, Zeno, Menander, Socrates. The thinker believed that his pupil should be aware of these Greek classics.

The linguistic practices presented in the letters have a philosophical and anthropological orientation they are combined in one semantic whole: a respectful attitude towards his student, to their new friendship, to friendly feeling of love for each other: «Because friendship is so divine

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<sup>1</sup> Skovoroda, H. S. (2012): *Lysty do Mykhayla Kovalyns'koho*, s.6

<sup>2</sup> Skovoroda, H. S. (2012): *Lysty do Mykhayla Kovalyns'koho*, s.104

<sup>3</sup> Skovoroda, H. S. (2012): *Lysty do Mykhayla Kovalyns'koho*, s. 21.

such a pleasant thing that it seems as if it is the sun of life», «friendship accompanying life not only adds pleasure and charm to its bright sides but also eases suffering» (10)<sup>1</sup>.

L. Ushkalov well-known in Ukraine and abroad researcher of the works of G. Skovoroda, wrote: « The philosopher in his advisory and encouraging letters to M. Kovalinsky was able to fill not only with numerous colorful images, quotations from Greek and Roman classics, wise teachings, philosophical reflections, sparkles of irony, refined verses but true, alive, trembling and friendly feelings» (8)<sup>2</sup>.

Using of various linguistic practices in the legacy of G. Skovoroda proposed in the article is debatable and invites for analysis in the context of contemporary achievements of the philosophy of language. The linguistic practice in the letters to M. Kovalinsky has a very personal relationship between two friends, a relationship that should not be known to others. This is the world of two personalities meeting for whom their friendship became their life. Researchers of language practices point out that they determine the «sincerity» of language. In each letter there is «sincerity». The correspondence of G. Skovoroda and M. Kovalinsky is a unique example of the philosophical vision of the interaction «I/the Other» where the language practice reveals the ambiguity of states and relations, feelings. The letters show tips for mastering your inner person. They reveal the «inner world» of G. Skovoroda. That's why he used Latin and Greek language practices to convey his attitude, his feelings to M. Kovalinsky. Moreover the speech practices of G. Skovoroda prove his intentional states: faith, hope, desire, love, sorrow, sympathy, misunderstanding, friendship, respect, confusion, revealing the wealth of his «second nature», overcoming the tragedy of spirit.

The phenomenon of linguistic turn («linguistic turn») at the turn of the twentieth centuries is gaining ground. The questions arise not only about the subsequent existence of a person in the situation of transition from the present to the postmodern in the conditions of media reality but also the perception of the personality of the transition from the text to the hypertext. The latter most effectively manifests itself in the realm of creative activity. What is evidenced by the legacy of the famous Ukrainian philosopher G. Skovoroda.

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<sup>1</sup> Skovoroda, H. S. (2012): Lysty do Mykhayla Kovalyns'koho, s.40.

<sup>2</sup> Ushkalov, L. (2012): Istoriya odniyei druzhby. Skovoroda H. Lysty do Mykhayla Kovalyns'koho, s. 7.

### 3.7. TOURISM AS AN INNOVATIONAL PROJECT OF MODERN GLOBALIZATION

The process of globalization, undoubtedly, is one of the most prominent at the turn of the twentieth and twenty centuries, defining the vector of human development for the coming decades. In spite of the fact that these processes touch on all sides of human life, the researchers give the greatest advantage to economic globalization, since it concerns not only the fundamental material foundations of the existence of mankind, but also the formation of a new planetary structure.

So, in the annual Globalization Index, which consists of experts from the Foreign Policy magazine, there are 62 countries in the world that unite 85% of the world's population and more than 90% of the world economy. From post-Soviet countries, Ukraine, Estonia, Russia are taken into account. When ranking the analysts take into account four main parameters: economic integration, personal contacts, in particular, international travel and tourism, the volume of international telephone calls, postal items and transfers; the number of Internet users and the country's activity in international relations<sup>1</sup>.

Hence, tourism is one of the main parameters for determining the globalization rate of a country, and the expansion and deepening of tourist ties is an important problem of contemporary international relations, which determines the relevance of this topic.

Undoubtedly, the issue of tourism development, its political, economic and cultural influences on the world economy and international relations occupy a prominent place in modern political, scientific and economic discourses, as evidenced by a large number of works devoted to this problem. For example, the monograph under the general editorship of V. Gerasimenko «Markets of tourist services: the state and trends of development» (Odessa, 2013); monograph under the general editorship of I. Pisarevsky «Tourism and the city: experience, problems and perspectives» (Kharkiv, 2011), etc. At the same time, it should be emphasized that the analysis of tourism is not possible without a philosophical understanding of tourism as a phenomenon whose directions of operation are the subject of research of branch scientific disciplines. Only philosophy, as noted by modern researchers, can comprehend the «human dimension» of the latter (V. Gorsky)<sup>2</sup>.

Consider the specifics of tourism in the context of modern globalization, where there is a new level of interaction between actors. To analyze expansion and deepening of tourist connections as an important problem of modern humanitarian knowledge. Indicate the formation of a new type of person.

It is accepted to distinguish between the following types of tourism: route-cognitive, children's, youth, family, for the elderly, for the disabled, cultural-cognitive, sports, rural, underwater, mountain, business or congress tourism, health-improving, festival, hunting, ecological, educational, shopping tourism, religious, ethnic, etc.<sup>3</sup>.

It should be noted that back in 1937, the Committee of Experts of the League of Nations recommended «to consider as a tourist any who is at least 24 hours in a country in which he does not live». Article I of the International Convention on the Customs Specialties for Tourists adopted by the United Nations in 1954 gives the following definition of the term: «tourist» means any person, regardless of race, sex, language or religion, entering into the territory of any treaty a state other than the state in which that person habitually resides and remains there for at least 24 hours and no more than 6 months with the permitted purpose (in addition to the purpose of emigration), such as: for the purpose of tourism, entertainment, sports or treatment, or for the family circumstances, or for studying, religious pilgrimage, or for business purposes<sup>4</sup>.

It should be noted that the United Nations (UN) today also acts as the coordinator of the activities of the states and national tourist administrations in the field of tourism and international

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<sup>1</sup> Novyny ekonomiky. Ohlyad ekonomichnoyi sytuatsyy v Ukraini ta myre [News of economy. Review of the economic situation in Ukraine and in the world].

<sup>2</sup> Hors'kyy, V. S. (2002): Podorozh yak fenomen kul'tury. Vseukrayins'kyy kruhlyy stil «Filosofiya turyzmu».

<sup>3</sup> Kubakh, A. I., Kolyada, T. A., Kharitonov, O. V. Pravove rehulyuvannya turyst-skoyi diyalnosti [Legal regulation of tourist activity], s. 6

<sup>4</sup> Mizhnarodno-pravovi aspekty turyst-s'koyi diyal'nosti [International-legal aspects of tourism activities].

travel, as well as organizer of a number of international seminars and colloquiums on the issues of training specialists for tourism, development of methodology of statistical accounting in the region international tourism. Thus, one of the latest UN acts is the Declaration on «The use of tourism to achieve the Millennium Development Goals», adopted in September 2005 in New York within the framework of the UN General Assembly <sup>1</sup>.

Noteworthy is the study of N. Salzman and I. Matahia <sup>2</sup> that in his article, «Lifestyles of the next Millennium» (1998), considered further social development on the basis of regularities of development of the market. The authors formulated the 65 predictions about various spheres of life in the twenty-first century, including not only economy and technology but also education, family. Main, in our opinion, is the idea of the global future not only of thought but also of action. We are talking about the importance of personal observations and experiences, which are formed also during the tourist travel.

Undoubtedly, globalization confirms the intensification of economic processes, combining financial markets, businesses, international organizations, state. Appears to be a single economic and financial space, where modern information and computer technology serve as the matrix, affecting its legal, social, cultural modes of interaction. The space that arises, connecting the most distant points of the globe, thereby «squeezing» it, where the individual gets the opportunity of experiencing events at a great distance, here-and-now. In other words, «expansion» geography correlates with increased dynamics of inclusion of actors in these processes, and, conversely, the more active a person regarding the perception of national identity, multicultural world, the faster it appears a single space. Global world Vista threads where representatives of different nationalities, religions and social statuses are in direct interaction. As the researchers note, in the tourism business works today every eighth person to identify it as an «economic miracle», where the combined human, financial and technological resources to achieve a certain goal.

A vivid example of the globalization trends create tremendous opportunities for the realization of tourist services, the emergence of a global network of airlines, hotels, travel agencies. As the researchers note, one of the most well-known computer reservation systems tourism products is «Galileo international»: «It business cards are a powerful information base, wide redundancy and flexibility. The modern «Galileo international» exists since 1993 with the merger of two electronic reservation system «Galileo» and «Covia-Apollo». The founders of the United network made by North American and European airlines. With equal equity participation they formed the authorized capital of the new company in the amount of 1.5 billion am. dollars. In 1997, she had 120 thousand terminals, covers 500 airlines, 31 thousand of hotels, 44 firms for the car hire. The number of its subscribers reached 42 thousand». This system provides services in the United States, Mexico and Japan <sup>3</sup>.

Globalization has provided new opportunities to countries that have gone the way of modernization or «focal modernization» and industrialization on a modern technological basis. So, according to experts, China has become the third largest in the world in terms of GDP, behind only the United States and Japan. This concerns the tourism sector (ehotels «Shangri-La», «Regal Hotels», «Mandarin Oriental» (Hong Kong). The formation of strategic alliances (consortia, joint ventures of strategic nature). Popularization and promotion of specific tourism brand in the international market of services is one with the task.

However, we should give thought UNESCO Director-General Koichiro Matsuura, who at the beginning of the XXI century noted that despite the fact that the process of globalization gives humanity a unique opportunity in the field of communication and a free exchange of ideas and products, it also carries with it a serious threat to strengthening inequality, depersonalization of culture and lifestyle, loss of identity or, conversely, leads to a burst of identity and isolation from

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<sup>1</sup> Sadovenko, A., Maslovs'ka, L., Sereda, V., Tymochko, T. Stalyy rozvytok suspilstva [Sustainable Society Development], s. 72.

<sup>2</sup> Salzman, M., Matahia, I. Lifestyles of the next millennium.

<sup>3</sup> Kel'der, T. L., Shevchenko, Yu. O. Zovnishn'oekonomichna diyal'nist' v turyzmi [Foreign economic activity in tourism], s. 33

the outside world In this context, we are turning to the cultural dimension of globalization <sup>1</sup>. The well-known sociologist P. Berger, analyzing cultural diversity in the contemporary world in conjunction with the processes of global transformation of the individual countries of East and West, has allocated 4 «carrier» cultural globalization:

1) international business elite, named him after S. Huntington «Davos culture». The name comes from the Economic Forum of European Leaders, periodically held in Davos (Switzerland);

2) international intellectual elite, designated Berger as «club culture of intellectuals»; 3) Macworld (McWorld), which means mass culture;

4) any movement (ecological, political, civil, religious, etc.) <sup>2</sup>.

Globalization statement establishing a new culture system that combines humanity as one community, establishing new images and values, transforming social and individual consciousness, which is associated with the creation of a new coordinate system, which combines local and global, that must be considered when analyzing this phenomenon as tourism, which causes the formation of a new type of personality – Cosmopolitan. For the latter, the category of «homes» changes, it becomes wider, from now on its home is the whole world, and tourist routes are no longer linked exclusively to its country and culture. Thus, Ukraine-EU visa-free dialogue, where laws and norms of behavior that are common to ordinary Ukrainians, are opening up new opportunities in the tourist sphere of the country, which is connected with the removal of the «cultural barrier»

According to researchers, in general-historical terms, we can state the gradual increase of integration tendencies, which indicates the contradictory tendencies of «transition to modernity». The image of the tourist (Z. Bauman), informs the discreteness of the sociocultural field, the mosaic of the world, embodying freedom (movement, information, communication, etc.), causing serious social and cultural consequences. We add that the emergence of new intercultural individuals, who no longer feel like carriers of only one particular culture. They exist in a new reality, which allows you to take an active part in cultural life «at a distance», which in turn emphasizes the supranational nature of our time. «Transition to modernity» is associated with the emergence of a new world, which requires new names and new theoretical substantiation. According to Z. Bauman, the new world finds itself as a «current modern»<sup>3</sup>.

The new cultural configuration that arises as a result of this results in general new values, where the role of integrative cultural factors becomes of a new quality. People «more and more live reality created (created) new culture, new cultural means of the illusory world, which sees the influence of global civilization, which dictates a new objectivity» <sup>4</sup>. Under the conditions of global technologies and global media communications, the conditions for the creation of global networks with the ability to move quickly and characterized by the prefixes «over» and «trans», is changing the shape of local cultures. The process of globalization confirms the formation of new forms of interaction, which emphasizes the transformation of the classical notion of culture.

Modern culture is connected with the specificity of social relations and relationships, so we are talking about the formation of space which, according to Yuri Shinkarenko, is to unite all without exception, subjects of socio-cultural forms that constitute public engagement <sup>5</sup>. Thanks to the «cultural tourism» will open new opportunities to bring people together, belonging to one or different crops, by identifying common interests and common interactions. As noted by the Ukrainian researcher A. Golozubov, «there is an urgent need for the formation of man as «citizen of the world», which needs to be mobile not only in their movements, but also in the ability to perceive

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<sup>1</sup> K obshchestvam znaniya. Vsemirnyy doklad YUNESKO [To knowledge societies. UNESCO World Report].

<sup>2</sup> Berger, Pitera L., Khantigtona, Semyuelya P. (Eds.). Kul'turnaya dinamika globalizatsii [Cultural Dynamics of Globalization]. *Mnogolikaya globalizatsiya: kul'turnoye raznoobraziye v sovremennom mire*.

<sup>3</sup> Bauman, Z. Tekuchaya sovremennost' [Flowing modernity], s. 238.

<sup>4</sup> Shalayev, V. P. Sostoyaniya i resursy filosofii nashego vremeni: degradatsiya ili rozhdayushchiy khaos (opyt sotsi-filos. analiza) [The states and resources of the philosophy of our time: degradation or the birth of chaos (experience of social-philosophy analysis)], s. 49.

<sup>5</sup> Shynkarenko, Yu. Identychnist' i zhyttyevyy svit u konteksti suchasnykh tsyvilizatsiynykh zmin [Identity and the world of life in the context of modern civilizational changes], s. 77.



other cultural values and norms, to respect the Other»<sup>1</sup>. We are talking about a person who remains culturally diverse and varied, and realizing their personal, economic, humanitarian, communication needs, taking into account their on a planetary level, overcoming their own «zagubieni»<sup>2</sup>.

According to researchers, with the intensification of the global information and communications enterprises of the people will be formed not on ethnic, class, state or country, and universality of interests, aptitudes and the like, therefore, to replace the nation-state organization of mankind comes network. Is there a global communication, formed by collecting a new topos, which contains cultural space, they had never interacted.

Therefore, when in philosophical and cultural discourse raises the question of the emergence of innovative phenomena as one of the manifestations of globalization tendencies, first of all, we are talking about «cultural tourism». Creates a fundamentally new reality that is characterized by the development of a unified system of global communication, intensification of activities of transnational companies and the emergence of a single information space, where the main focus is on the ability to navigate easier in the modern world. As noted by V. Shalaev, people in such circumstances will not feel themselves as bearers of traditional social institutions – ethnic group, nation, society, and language – that is, those institutions that have determined certain forms.

This situation demonstrates the multidimensionality of modern man: she feels his own unlimited possibilities, because the slow rhythm of life and a certain Patriarchal identical to her own oblivion, but at the same time feels the multiplicity and fragmentation of the world-Dimensionality changes multidimensionality, the modern man – a man of speed, its main features are high mobility and independence.

In this context, an interesting typology of tourists German researcher G. Ghana, proposed six major types of travelers (each group differs by the first letter of the corresponding name): S, F, W-1 and W-2, and In types: S-type («sun, sea»); the F-type («the man who travels long distances»); W-1 («prefers forest walks»); W-2-type – athlete; A-type («adventure»); B-type («education and viewing sites») <sup>3</sup>. This typology is not unique, however, in our view, it clearly outlines the types of personalities, and is a criterion in other classifications. We are talking about the formation of the image of man-nomad (from nomad – nomad), who lives «here and now», without past and future, embodying cultural polycentrism in all its manifestations (16)<sup>4</sup>. Man of the present day is a person who has his own direction and autonomy, for which movement, the process becomes a dominant mode of existence.

In the beginning of XXI century tourism takes on a new meaning, which is a consequence of the formation of a single global not only economic but also informational and communicative space. There is a formation of the new cultural system, which focuses on awareness of the unity of the diverse world. System, which emphasizes the importance of human values, because tourism is an effective way of learning and developing their own values and values of other cultural systems. The rapid growth of tourism, the complexity of intercultural relations define the multifaceted nature of research of this problem.

Thus, in conditions of intensification of processes of globalization and informatization of the present day, special attention deserves the understanding of tourism as a socio-cultural practice, as one of the possibilities of realization and manifestation of the policy of cooperation. Therefore, in the field of tourism, the principles of multiculturalism, ethnocultural sensitivity, tolerance, empathy, understanding and respect for the manifestations of another culture, which allows you to successfully communicate with representatives of any culture different from one's own, acquire the principles of multiculturalism.

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<sup>1</sup> Holozubov, O. V. Radist' i smikh u kul'turnykh praktykakh postmodernu: filosof's'ko-antropolohichni vymiry [Joy and laughter in cultural practices of postmodern: philosophical and anthropological dimensions], s. 2.

<sup>2</sup> Pakhomova, Yu. N., Pavlenko Yu. V. Tsyvlyzatsyonnaya struktura sovremennogo myra [The civilization structure of the modern world], s. 539.

<sup>3</sup> Kiptenko, V. K. Sutnist' i zmist menedzhmentu turyzmu : pidruchnyk [Nature and content of tourism management].

<sup>4</sup> Blyumenkrants M. V poiskakh imeni i litsa. Fenomenologiya sovremennogo landshafta [n search of name and person. Phenomenology of the modern landscape, s. 55

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### **3.8. ROLE OF THE STATE IN SUPPORT OF THE PROMISING AREA OF THE INNOVATIVE-INVESTMENT MODEL FOR DEVELOPMENT OF PROCESSING COMPANIES IN UKRAINE**

The nature of the investment policy is determined by intensity of the government intervention into economic processes, degree of relation between such policy and other governmental institutions, including the tax, financial and credit, amortization, licensing and pricing policies, income and employment policies, policy for raising foreign investment, as well as the legal area and general administrative structure<sup>1</sup>.

The investment policy should be developed with participation of all the related parties and should be institutionally bounded within the rule-based framework, which rests upon the high standards of governmental management and provides for the predictable, efficient and transparent procedures for investors.

The institutional foundations and investment activities consist of a set of fundamental rules and well-regulated set of institutions that establish rules for coordination of the investment activities of business entities<sup>2</sup>.

Investments in processing companies means a placement of monetary, property and intellectual valuables in design and construction of the companies, procurement of equipment, technological update and update of products. Such investments are characterized by the following basic peculiarities:

- focus on forward-looking assignments as regards the growth of national wealth, formation of the export potential, creation of jobs;
- large share of construction works and equipment within investments;
- high research and innovation intensity based on the necessity to purchase or create intangible assets within the investment projects.

The global market on investment into the processing industry is characterized by a priority investment into re-industrialization and innovative processes<sup>3</sup>. The investment activity in most Ukrainian companies is limited to emergency and current repairs and import of particular units of equipment. For systemic analysis of the institutional environment of investment activities in the processing industry, the legal instruments in this area should be divided into the following groups:

- basic law on investment activity;
- law concerning foreign investment;
- law on incorporation of investment-focused companies;
- law concerning fiscal regulation of the investment activity;
- law governing financial support of investment processes;
- law concerning stimulation of the investment activity;
- legal instruments on the innovative investments;
- law concerning interrelation between the investment and privatization;
- law on management and arrangement of the investment activity;
- law concerning public private partnership and forms of international cooperation in the investment area.

Analysis of the current situation in regard to the governmental participation in support of the promising area of the innovative-investment model for development of processing companies in Ukraine enables identifying a number of problems<sup>4</sup>:

1. Weakness of the current infrastructure of support to venture enterprising, which should have contributed to emergence of the new and development of the existing small and medium-sized technological innovation companies capable of becoming attractive objects for direct investments:

- it is weakly integrated into the current infrastructure of support to small enterprising;

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<sup>1</sup> Udalykh O.O. Management of Investment Activity of Industrial Company, 292 p.

<sup>2</sup> Davis L., North D. Institutional Change and American Economic Growth. Cambridge, p. 6.

<sup>3</sup> Badalyan L., Krivorotov V. Reindustrialization: Reasons and Price [e-resource]

<sup>4</sup> Afendikova N.O. Innovative Development of Agricultural Production under Modern Conditions, p. 32-34.

- it does not cover a substantial part of infrastructural segments: HR, information, consulting;
- it is not enough for covering most of the venture business entities, especially innovative companies.

2. The Ukrainian venture industry still lacks presence of the domestic capital, which would be a vital factor for attractiveness of the Ukrainian economy for foreign investors.

3. Low liquidity of venture investments is largely stipulated by a poorly developed stock market.

4. Weakness of economic incentives for raising direct investments into the companies of the high-tech sector, providing an acceptable risk for venture investors.

5. The matters related to legal and regulatory governance of formation of funds and process of venture investments are solved at a very slack pace.

6. The challenge to support the process of creation and development of new innovative companies, being potential investees, remains almost unsolved.

7. The efforts to establish an enterprising culture, popular presentation and methodical support of venture investments as the type of investment activity, which is both new and promising for Ukraine, are evidently insufficient.

Thus, the state encounters a challenge to elaborate the efficient forms of participation in development of the venture industry, in terms of the current global experience and Ukrainian conditions.

As a result of a thorough analysis of the global experience of venture business, the following principles to be followed when implementing the governmental incentive arrangements for venture investments can be set forth:

1. Governmental arrangements should be aimed at elimination of irregularities of markets or lack of funds, being a consequence of the financial system's shortcomings, which prevent the capital to be provided to economically viable companies and projects.

2. While developing the financial arrangements, one should take into account the nature and extent of the investment privileges: whether they are forwarded to venture funds or directly to small companies, target stages of investment, risk factors, comparison with the private sector's rates of return, degree of competence of intermediaries and impact on private capital.

3. The arrangements to support venture investments should encourage investments into private sector and create a commercially active market. The governmental arrangements have to try to reinforce the venture capital's private sector. As long as the private markets get developed, the above programs should be wound up.

4. The private sector should be involved in management of the governmental support programs. Although the state must control implementation of the program, its participation in making the investment decisions should be reduced to minimum.

5. The procedure for a small company, investor or investment company to file the application for privileges must be simple and explicit.

6. The venture enterprisers, investors and companies should know about existence of the support programs. Information about availability of the venture capital should be included and used by various governmental programs.

7. The venture capital support programs should be estimated on a regular basis. The criterion of success of the created venture funds or small companies is the extent, to which they can operate on a commercial basis, i.e., make profit.

8. The venture industry is devoid of any specific problems, which have to be solved through adoption of the special law. The current problems in the general civil, tax and currency laws, impeding development of the venture industry in Ukraine should be solved by the state within the framework of the relevant branches of law and legal instruments that already exist.

In our opinion, the American model of venture business is the most suitable one for Ukraine. It is characterized by a high level of risk that distinguishes it from the more widespread business project supporting mechanisms, such as, e.g., investments into securities or bank loans. Three most

significant features of that kind relevant to the goals of development of such business in Ukraine can be distinguished<sup>1</sup>:

1. The required funds can be assigned for a promising idea, without a secured coverage by property, savings or other assets of the enterpriser. If the project fails, the greatest extent that can be claimed by the investor is a share of the assets of such company in proportion to its interest in the registered authorized fund. The venture capital investor agrees to share the entire responsibility and financial risk together with the enterpriser. The necessity to obtain the loans of that kind often arises with the start-up or small enterprisers, inventors, scientists and engineers, who are trying to implement their new original and forward-looking developments on their own. Their way to a commercial bank is often closed due to the following reasons:

- many commercial projects become yielding only after 3-5 years, however in the above case they deteriorate the bank's balance sheet parameter;
- such projects are related with a dramatically high level of financial risk;
- banks will have to claim for pledge security or guarantees.

2. There is an active participation of investors in the project financing management at all the stages: from examination of the enterprisers' ideas and to provision of liquidity of the created company's shares.

3. The venture funds are ready to invest money into the research intensive developments even if there is a high degree of uncertainty. Whereas the greatest potential provision for profits is hidden particularly in the aforesaid area.

It is common knowledge that the venture capital investors make concessions to enterprisers through no altruistic considerations.

The investor's interest is precisely in gaining profit from its investments, which profit will be significantly higher than the one from placement of free financial assets on bank deposits or from investing them into governmental fixed income securities.

Investors are divided into the individual and institutional ones at the securities market. The institutional investors are the basic category at the stock market of the developed countries. The share and corporate investment funds are among the most active investors, moreover the investment activity is taken up by other financial mediators, in particular by commercial banks, pension funds and insurance companies. The conventional model of investment activity of institutional investors and financial mediators is shown in a descriptive form at Fig. 1.

The Law of Ukraine "On Governmental Regulation of the Securities Market in Ukraine" states that aim of the governmental regulation of the securities market is to secure the titles for the securities. That aim must be achieved through insurance of professional responsibility of the persons whose activities may cause damage to third parties. It will enable distribution of risks, reducing the pressure of risks on the investor.

Currently, no state can afford that trust in the securities market would be shaken both for foreign investors and for the country's population and that people, who have invested their savings in securities of their country or any other, would suddenly lose them as a result of some cataclysms or fraud. Formation of the conditions for a full-fledged stock market will ensure free circulation of shares in the secondary securities market, being the major indicator that makes it possible for us to determine the companies' efficiency.

One can identify, from the totality of economic activity entities, a set, the components of which serve as investment donors or investment acceptors. The above set forms the investment area, which, in relation to risks and methods to reduce the risks' adverse effects, is split into two subsets<sup>2</sup>:

- scientific and research activities, production, service industry, financial mediation, etc.: those, who perceive emergence of risks, in particular the financial ones, to be far from desirable and costs-intensive;

- risk consumer: those who assume third party's risks hoping to win much in future.

<sup>1</sup> Pysarenko T.V. Condition of Innovative Activity and Activity in the Technology Transfer Sphere in Ukraine for 2017: Analytical Note, 98 p.

<sup>2</sup> European Innovation Scoreboard 2017. [e-resource]

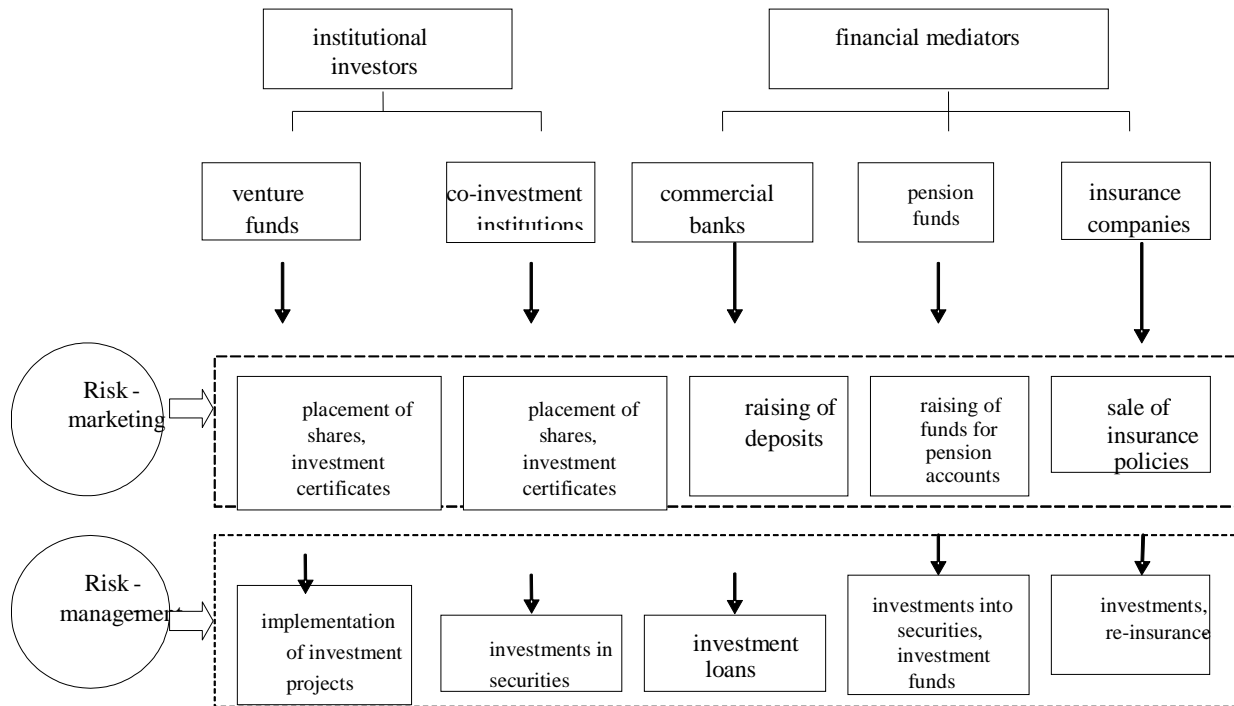


Fig. 1. Model (descriptive) of investment activity of institutional investors and financial mediators

In order to shape out the investment area on the basis of the findings of our research, we have developed a comprehensive management of the investment risk level; it can be considered as a system combining the Risk Marketing and Risk Management.

This system (Fig. 2) means a set of management principles of influence on the inter-related economic and organizational, social, legal, market components, human factor and information as regards the activity of the investment area entities. Such system has certain tasks and methods to solve them.

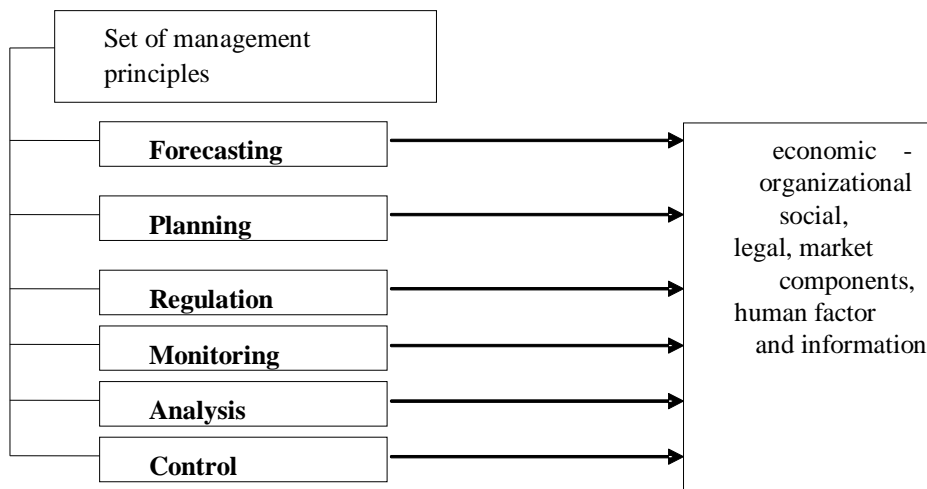


Fig. 2. System of comprehensive management of the investment risk level

Activity of the investment area's components will be successful, provided that the components are deployed as a single set. Use of some separate components of the set provides for no desirable results, as they are inter-related and reflect different areas of the investment activity.

Taking into account the fact that Ukraine is moving towards the investment model of development, presently a special attention should be paid to the governmental regulation of the investment process in Ukraine resulting in formation of certain pre-requisites<sup>1</sup>:

- introduction of the relevant legal base, law compliance control;
- stimulation of development of the venture business and co-investment institutions;
- provision of the transparent, fair competition in production, service industry and banking sector, thereby precluding gain of excessive profits through use of the business-making extensive factors;
- maintenance of the unified accounting system instead of separate ones for the tax inspectorate, shareholders and for internal needs;
- training of the professionals, who will be capable of taking the justified risk;
- conduct of pension reform.

Major entities to implement the governmental policy in regard to the venture capital should include the National Commission on governmental regulation in the area of the financial services markets together with the National Securities and Stock Market Commission. Particular attention should be paid and the control should be rendered to the matters of patenting and guaranteeing the intellectual property rights, which, under the given conditions, become the driver and essential component of the investment area.

The driving force capable of bringing the domestic market closer to the global venture investment processes includes formation and implementation of a single government policy as for protection of investors, raise of investment capitals and technologies (know-how), development and functioning of the market for securities and their derivatives, free circulation of shares in the secondary securities market, promotion to adaptation of the national stock market in line with the international standards. Nowadays, the venture investors around the world perceive the idea of global investment more seriously than ever: they are interested in augmenting the global investing trend at the international market.

Analysis of the positive experience of the world's developed countries makes it possible for us to highlight the principles underlying the policy for stimulating innovations, venture investments: the focus is not so much on the macroeconomic performance of the project implementation, but rather on demonstration of another, more efficient and updated model of innovative growth and public and private partnership; substantial co-financing of projects by the state with project management remaining in the hands of business; decentralization of the governmental support and formation of the network of development institutions; preservation of the old innovative institutions with them built into the new system or gradually replaced with new institutions; formation of trust to new institutions through the managers' personal reputation; exercise of functions to support through business mediators; provision of services instead of funds; support of co-operation and mutual training.

Internationally, the basic factors contributing to development of the venture industry include: presence of the scientific and educational base, meaning availability of a strong research sector, developed scientific schools carrying out a continuous cycle of researches; maturity of the financial market, meaning the developed financial institutions and markets of the insurance and pension sectors, availability of the stock market; political and macroeconomic stability, steady economic growth; sustainable demand from the public and private sectors for researches and developments; availability of free and "long" money in the economy. According to the current situation, Ukraine possesses most of the above conditions, to this extent or another. The country continues to grow economically; some companies proceed with investing into new projects and can afford considerable development budgets.

With the aim of profitable implementation of the investments made into the venture companies, it is required for the new high-tech company to enter the stock market for selling the shares; and the owners of funds invested into the company are interested not so much in dividends,

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<sup>1</sup> Shpykuliak O.G. Phasing of Innovative Process and Estimation of the Innovation Activity Efficiency, p. 109-116.

but rather in the capital gains. As usual, the venture capitalists, investing in venture companies, intend to increase their capital for at least 5-10 folds within 7 years. At the same time, as in the best case scenario the venture company will be able to enter the stock market for the first time only after 3-5 years after investment, the venture capitalist does not anticipate receiving the profit before that date. And during the above period the capital so invested in the company is not liquid, meanwhile the real value of profit becomes known only after the company enters the stock market, when the venture capital investors gain income through sale of their shareholding to the willing parties against the amount that significantly exceeds the funds initially invested into the company. Moreover, such "excess" can be quite impressive.

Thus, the acute goal of the state is to speed up the investment activity and to enhance the amount of investments. Improvement of the investment attractiveness is still among the priorities for the executive authorities. In order to improve the investment attractiveness, we think it necessary: to reduce the level of the governmental regulation of enterprising and to ensure the stability of the relevant law; to remove the ambiguity of interpretation of the regulatory legal instruments and to accomplish the judicial reform; to improve the regulatory base regarding the sale of proprietary rights; to accomplish the administrative reform; to ensure publicity and transparency in decision-making by the authorities and, finally, to reduce the level of bureaucracy and corruption; to introduce the corporate governance effective methods; to promote the development of capital markets, especially in the banking sector, stock and insurance markets; to reduce the tax burden; to ensure the stability of political environment; to intensify the actions for creating the state's positive image. Subject to the aforesaid, the necessity to define strategic foundations, promising areas for the investment policy in Ukraine under conditions of sustainable development becomes evident. The major strategic foundations to form the national model of sustainable development are inclusive of: provision of the internal and external security; formation of the inter-industry structure of production, which should meet the global standards and needs of the state's economy; increase of the socio-environmental focus of industries; technical re-equipment of production based on introduction of the new scientific achievements, power and resource-saving technologies; widespread use of the renewable energy sources; solution of the problem of utilization of the waste generated in the course of economic and other activities; regulated increase of the production amount; formation of the rational structure of production; enhancement of the technical level and environmental safety. In order to form the attractive investment policy, to speed up the investment activity and to build up the innovative-investment model for development of the processing companies in Ukraine, a vital importance is given to the respective regulatory and legal base and creation of the legal area in Ukraine consistent with the market economy.

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### 3.9. THE MAIN ASPECTS OF INNOVATION AND INVESTMENT ACTIVITIES OF THE ENTERPRISES OF RURAL TOURISM

Innovation and investment policy of the state should be aimed at creating favorable conditions for the development and support of any socially significant business entities. This is also true for rural green tourism in order to improve the competitiveness and efficiency of its enterprises on the one hand and to fully meet the corresponding needs of the population in the rest – on the other. The instruments of state influence, as practice and research, on the innovative activity of tourist subjects in rural areas should be:

- provision of tax benefits, up to full exemption from taxes, at least in the first 5 years of operation, and material encouragement of those enterprises actively engaged in innovative activities;
- providing favorable conditions and guarantees for attracting domestic and foreign investments;
- improvement of depreciation policy and system and procedure of accounting and control of activities;
- identification of priority areas for innovation and investment;
- involvement in the processes of innovation and investment development of large agribusiness on the principles of social responsibility and public-private partnership.

Enterprises of rural green tourism in a competitive environment and market mechanisms of management increasingly recognize the need to develop new products and services and the associated economic benefits<sup>1</sup>. Due to its unique natural, cultural and historical resource tourism potential, as well as the great interest of domestic and foreign tourists in new destinations, rural areas of Ukraine has major innovation and investment opportunities for the development of tourism. Tourism business in rural areas contributes to the creation of conditions for sustainable development of nature and the economy, improving the level and quality of life of rural residents, the growth of human potential by expanding the available offers of tourism products and services as related activities, hence increasing employment and income.

Innovations in the enterprises of rural green tourism are a system of measures that are characterized by qualitative novelty and lead to positive changes in the economy and the industry and the region as a whole. The innovation and investment process is recognized, on the one hand, through the tourism market and the level of customer satisfaction, and on the other – through joint decision-making by tourism entities and authorities at various levels.

On the introduction of innovations and attraction of investments in the enterprises of rural tourism is affected by geopolitical and socio-economic situation in the country, solvency of the population, the national legislation as well as intergovernmental and international treaties<sup>2</sup>. Therefore, the reasons for the introduction of innovations in rural green tourism enterprises are the following: the glut of many classical and traditional markets; the risks of losing the market share of inbound tourism; increased competition and growth of proposals; technological revolution and expansion of the scope of information technology; the shift from the supply economy to the demand economy.

Based on the provisions of the WTO, in the enterprises of rural green tourism innovation and investment activities should be carried out in three directions:

1. Introduction of innovations (organizational innovations) related to the development of tourism enterprises in the system and management structure, including reorganization of the

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<sup>1</sup> Ignatenko, M.M. Marmul, L.O. and Sarapina, O.A. (2016): Sotsialno-ekonomichnyy potentsial silskykh terytoriy yak osnova rozvytku pidpryemstv silskoho zelenoho turyzmu na zasadakh innovatsiynosti [Socio-economic potential of rural areas as a basis for the development of rural green tourism enterprises on the principles of innovation]. *Ekonomika i menedzhment kultury*, vol. 2, pp. 32-38.

<sup>2</sup> Terletskyy, V.K. and Filipenko, A.B. (2012): Svitovyy dosvid innovatsiynykh form ekoturizmu na porushenykh landshaftakh [World experience of innovative forms of ecotourism on disturbed landscapes]. *Ekolohichnyy visnyk*, vol. 1, pp. 28-29.

structure; increase in the size or concentration of resources, capital and activities; participation in associations; introduction of modern forms of accounting and financial reporting.

2. Marketing innovations (strategies), which allow to cover the needs of target consumers and attract the sector of buyers at a given time.

3. Periodic innovations (product innovations) aimed at changing the consumer properties of the tourist product, its positioning in the market as an exclusive, providing for the growth of competitive advantages.

Thus, innovation and investment activity of rural green tourism enterprises is aimed at creating a new or changing an existing product, developing new markets, introducing advanced technologies and modern forms of organizational and management activities. Because of this, innovations and investments are needed and are an essential condition for their development. Management of novelty and its implementation in the practice of tourism business in rural areas are fundamental issues in the system of management decisions on its development.

Innovation and investment activity in rural green tourism has its own characteristics. First, making the tourism business on their own, rural residents are not prone to the risks that accompany it. Secondly, the rural mentality means, first of all, loyalty to traditions, rather than the desire for novelty. Third, in rural green tourism, more than anywhere else, there is interaction between different structures, such as local authorities, rural communities, travel agencies and operators, hotel owners and farmsteads, whose interests and benefits need to be fully coordinated. However, with systemic conciliatory action, innovation and additional investment can have a positive effect.

One of the main marketing ways to attract consumers and increase their profits is to offer them a new product and services. In rural green tourism novelty can be represented by new routes, views, forms of recreation, tourist attractions and destinations <sup>1</sup>. However, almost every host runs the risk of being the first to innovate. Therefore, not all entrepreneurs apply innovations in practice. After all, innovation is characterized by a high level of uncertainty and risk, the complexity of predicting the final results.

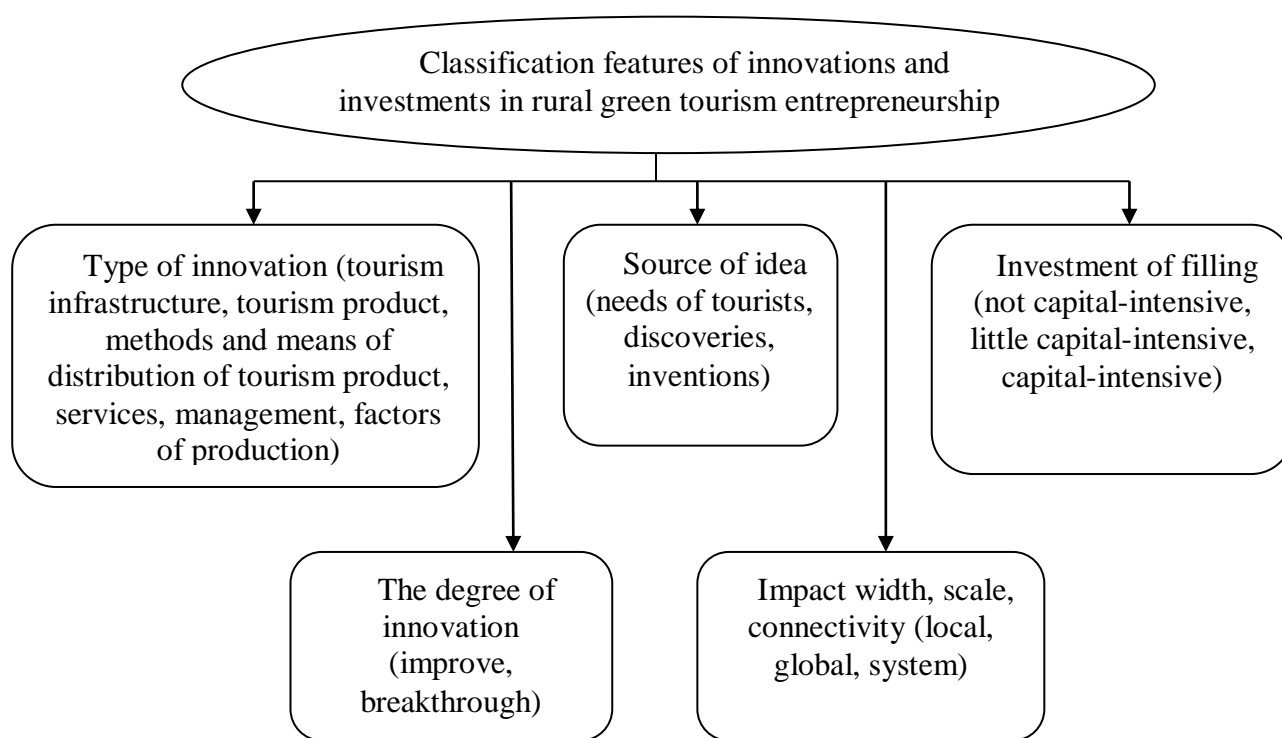
On the other hand, provided a rational approach to the creation and implementation of innovations and attraction of investments to get additional income and useful effects. Innovations and investments in entrepreneurship in rural green tourism are aimed, as previously revealed, at the formation of a new tourist product, new approaches in marketing activities, as well as the introduction of new management methods using it technologies. Their application will strengthen its competitive advantages, efficiency and competitiveness. To this end, it is necessary to understand the factors that determine the degree of innovation and investment development of rural green tourism enterprises:

- significant conjuncture and competition in the domestic and foreign markets of tourism services;
- high level of development of science and technology, improvement of institutional levers of innovations, their availability for implementation;
- availability of professional support in the face of scientists, specialists, managers, marketers, system administrators, etc.;
- availability of resources (production, natural, infrastructure, financial, social, etc.).

The study of trends and patterns of systematic implementation of innovation and investment activities, planning and management of positive results is a complex methodological problem in the field of tourism, especially at the level of rural green tourism. As significant for determining the essence of innovation and investment in rural green tourism enterprises, there are certain classification features (Fig. 1).

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<sup>1</sup> Husyev, V.O. and Muzhylo, O.O. (2011): Paradyhma staloho innovatsynoho rozvytku Ukrayiny [Paradigm of sustainable innovation development of Ukraine]. *Ekonomika ta derzhava*, vol. 9, pp. 115-118.



*Fig. 1.* Classification features of innovations and investments in entrepreneurship of rural green tourism (developed by the author)

Innovations and investments in rural green tourism enterprises should be considered as systemic measures that have qualitative novelty and lead to positive production changes and ensure their financial and economic stability and sustainable functioning and development of the tourism industry in rural areas <sup>1</sup>. The idea of creating and implementing innovation and investment projects that do not even bring significant profits at first, can give impetus to the development of a whole direction of rural green tourism in the future and thus actively contribute to the creation of additional jobs and income growth of the rural population.

The practice of rural green tourism is influenced by such factors as demographic changes (aging population), lifestyle, nature of work. People tend to new and unusual travel. Their growing awareness, new needs stimulate rural green tourism, encourage innovation and innovation. Most innovative tourism products have their niches in the market space (ecological, extreme, etc.). Quite popular and cultural and educational tourism, which appeared innovative products.

Modern achievements in the field of telecommunications and e-marketing provide new opportunities for rural green tourism enterprises and significantly affect the models of its organization and management. The introduction of new technologies helps to increase investment returns. However, in Ukraine, due to the permanent underestimation of the existing competitive potential of rural green tourism as an important structural unit of the rural economy and a source of rural development, due attention is not paid to the development of its subjects. We are talking about ensuring the availability and arrangement of rural tourist destinations and attractions, modern marketing strategies and processes for the development and promotion of services, the use of new approaches to solving problems that will reduce costs and increase productivity.

Thus, innovations and investments or franchise mechanisms provide opportunities for the organization of rural green tourism enterprises as profitable business entities, the competitive potential of which requires improvement on this basis. The emergence of new products in the tourism market will actively contribute to the development of other, more advanced projects,

<sup>1</sup> Penkovskyy, V.S. (2014): Sotsialno-ekonomichna sutnistta znachymist pidpryemstv silskoho zelenoho turyzmu u modelyakh orhanizatsiyi ta rozvytku silskykh terytoriy [Socio-economic essence and importance of rural green tourism enterprises in the models of organization and development of rural areas]. Naukovi pratsi Poltavskoyi derzhavnoyi aharnoyi akademiyi, vol. 2 (9), pp. 237-241.

provide sources and resources for their financing. Innovations in rural green tourism enterprises require certain material and financial costs, so their implementation needs effective support on the principles of public-private partnership and social responsibility of large agribusiness.

An important form of state regulation and support of innovation and investment support for the development of rural green tourism enterprises should be its regional and national target programs <sup>1</sup>. Successful implementation of projects and activities of targeted programs in this area will ensure stable dynamics of functioning and competitiveness in the domestic and foreign tourism markets. This will create a new model of business growth in the field of rural green tourism. Its center will improve the conditions of accommodation, household amenities of farmsteads, material and technical base of personal peasant and farm enterprises, the introduction of new equipment and technologies in the sphere of tourist services.

It is also about providing, thereby, effective advertising of tourism products and services, the creation of appropriate infrastructure, training of highly qualified workers who can offer quality service to tourists. First of all, introducing the achievements of scientific and technological progress and best practices, innovative innovations and investing in the development of rural green tourism, it will be possible to create new concepts and models of its development, to implement tourism services and products in new formats of service. The formation of new management and marketing approaches, regulation of rural green tourism, will create modern tourist enterprises in the village with a developed material and technical base.

It should be pointed out that there are two types of innovations in economic practice: crisis innovation and development innovation. Development innovation, if properly justified, can bring significant profits and social benefits. Crisis innovation is a decisive action to implement innovations in order to save the goods/services of the enterprise from disappearing from the market. For the successful development of tourism business in rural areas, it is necessary to use both types of innovations, because the tourist market – the market is unstable, influenced by various events in the surrounding and related areas. Rural tourism enterprises should not only create a new product, but also be able to respond in a timely manner to new changes in tourism-related industries, have the ability to create new methods of work and improve performance.

Therefore, innovation and investment activity is a necessary condition for the development of rural green tourism enterprises and the sale of their products and services in the consumer market <sup>2</sup>. Just with the help of innovative investment sources, modern management and marketing strategies, they have the opportunity to survive in a competitive environment, to interest and attract the maximum number of consumers and to ensure their business financial and economic stability and sustainable development. On the other hand, innovative changes in rural green tourism, their main directions are determined by the social, environmental, economic and information components of public life in the modern conditions of its implementation.

In this aspect, an important direction and purpose of innovation is to ensure the sustainable development of rural green tourism. Environmental factors of innovative changes in it are changes in the environment, climate, reduction of territories of "wild nature". Negative manifestations in this direction make the environment untouched by human activity a great value in the minds of people, in public opinion, which affects the tourist choice. Therefore, the implementation of environmental innovations is based on the introduction of environmental management and audit in the practice of agro-gardens.

The technological factors that influence the innovative changes in the enterprises of rural green tourism include, first of all, the development of information and communication technologies and new opportunities for the transportation of tourists. E-tourism is another major area of innovation. The development of these technologies changes the entire tourism business – from functions and processes, forms of enterprises and products (on-line-travel agencies, e-offers of products and services, e-booking, sales and even registration of air tickets, promotion of products

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<sup>1</sup> Romaniuk, I.A. (2015): Systemno-strukturni definitsiyi katehoriy u haluzi silskoho zelenoho turizmu: uzahalnennya ta vykorystannya [System-structural definitions of categories in the field of rural green tourism: generalization and use of scientific]. *Naukovyy visnyk KHDU. Seriya «Ekonomichni nauky»*, vol. 15, no. 3, pp. 29-31.

<sup>2</sup> Sievidova, I. (2017): Factors affecting the economic management efficiency of agricultural enterprises in Ukraine. *Problems and Perspectives in Management*, vol 4(1), pp. 204-211.

and services via the Internet, etc.) the Internet alters the functions of state tourism organizations, tourism professional associations and business entities.

They are increasingly taking part in the electronic marketing of the domestic market, tourism resources, destinations, events, as well as in integrated systems of management of relations with the consumer. This leads to changes in the management system of the tourism business and the transition from the industrial to the post-industrial model, to changes in the concepts of tourism itself as an activity – from mass to individualized. This is especially evident in rural green tourism. In turn, this determines the segmentation of the tourism market and the emergence of many "niche" specialized services and products that require constant updating and search for new forms of promotion.

There is a constant updating and adaptation of the tourist infrastructure to new requirements, facilities and equipment; services to the needs of specific groups of tourists, such as children and adolescents; young people; women or families with children; elderly people and people with special needs<sup>1</sup>. The organization and provision of special tourist offers, packages, products for such groups can be attributed to social innovation. In General, the factors that contribute to innovation in rural green tourism enterprises can be systematized in order to take into account when making management decisions in this form:

- increased competition, quantitative and qualitative growth in the supply of standardized hospitality products to agricultural communities;
- the need for the development of inbound tourism as contributing to the development of rural areas;
- the expediency of containment of outbound tourism of its own citizens in the country, natural, climatic and cultural conditions similar to their own rural areas, that is, the creation of domestic competitive rural tourism product;
- the need to develop and create conditions to meet the individual whims of tourists, the development of such types of tourism product;
- development of telecommunication and information systems and services related to them;
- transition from the economy of supply to the economy of demand, from the economy of product to the economy of pleasure and impressions.

It is established that the fundamental economic factor of innovative changes in the entrepreneurship of rural green tourism is to improve the level and quality of life of the population. With the growth of the welfare of the number of travelers and those wishing to relax increases. This leads to an increase in the number of experienced, professional tourists who are able not only to form their own tour with the help of information, but also familiar with the various nuances of tourism. Economic factors, therefore, increase the requirements of consumers to the quality of the tourist product. At the same time, there is an active attraction of tourists to the process of forming the content of the tour and he takes part in the development of a unique product designed for him according to his wishes.

Innovations in the enterprises of rural green tourism are aimed at improving housing, infrastructure, recreational, cultural and educational, excursion and other services, as well as technologies for their implementation (interactive, using communication, information and other modern technologies). Innovations can concern both the complex provision of services and focus on the individual components of the tourism product. The competitiveness of farms and enterprises of domestic rural green tourism will largely be determined by the implementation of integrated quality management systems, both at their own level and destinations. Innovation today is a new world concept, which provides for the integration of quality management systems and territorial management systems of tourism resources.

Today, in the enterprises of rural green tourism there is a tendency to transform scientific achievements into innovations – obtaining a positive result that is sufficient for applied implementation. To achieve real results in the activities of tourism business in various rural areas, it

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<sup>1</sup> Pleshyvtsova, M. (2014): Sposoby prosvannyya turystychnoho produktu silskoho turyzmu : dosvid frantsuzkoyi Natsionalnoyi Asotsiatsiyi silskoho turyzmu "Gîtes de France" [Methods of promotion of tourist product of rural tourism : the experience of the French National Association of rural tourism "Gîtes de France"]. Turyzm silskyy zelenyy, vol. 1, pp. 28-30.

is necessary to study new scientific developments and develop opportunities for their application in practical work, in your farm or enterprise. At the same time, work on the implementation of innovations should be systematic and continuous.

To ensure efficient operation, sustainable dynamic development and competitiveness of each enterprise of rural green tourism it is necessary to develop and implement its own innovation strategy; to identify the main directions of innovation; to identify sources of resources to achieve this goal, that is, to have a business plan, innovation or innovation and investment project. They represent program documents of development in which the purposes and tasks for creation and introduction of an innovative product are defined; reasonable tools, methods and forms of innovation management; the process of its implementation and control of results.

An important innovation factor and component of the tourism business in rural areas is information. It includes, first of all, informing potential tourists about recreation opportunities, housing, interesting events and other objects and phenomena related to certain rural areas <sup>1</sup>. Its sources are often understood as the activities of certain information centers of rural green tourism, Internet sites, availability and distribution of print media, personal contacts. In Ukraine, such a network is not very developed, especially in remote villages from the regional centers or informal. In Western countries, the role of such points is often played by certain local authorities in areas/villages or by branches of commercial tourism firms. Also, information could include basic signs and signs about the availability of services of rural green tourism, advertising farmsteads on the roads, gas stations, roadside cafes and car service, in the nearest towns, etc. This is also not sufficiently developed in Ukraine, since most farmsteads in recent years operate informally or under the guise of farmsteads advertised ordinary hotel in rural areas.

As innovations it is necessary to consider additional opportunities for interesting rest. They are understood as a set of additional leisure services, such as ski or boat rental, quad bike in the village, the services of instructors or coaches in a particular sport or the organization of horseback riding, picking berries, mushrooms; the creation of platforms (such as coworking) for communication of creative or sports associations of people, etc. For some categories of tourists (especially young people), this part of the infrastructure of the village is very important, because everything else in the countryside is not very interesting for them (for example, they came to the village exclusively for skiing, rafting, orienteering, quests, etc.). The range of additional services is often well developed in mountain villages, popular among skiers, in some resort areas (on the coast of the seas, rivers). Their provision often provides rural residents with greater income from rural green tourism, especially in high seasons than the main agricultural activity <sup>2</sup>.

Educational opportunities – organized excursions and trips to the countryside, such as historical sites, interesting people and cultural places, natural attractions, etc. it may Also include visits to nature reserves, national parks and other protected areas for the acquisition of certain knowledge or just sightseeing. This part of the service is most interested only in some groups of tourists, especially older people with certain educational interests or lovers of nature reserve. Such services (especially cultural and historical tours) are often better organized for mass tourism consumers.

A person who came just to relax in a small village, is not always able to organize it yourself, but in some areas it is possible, especially if you use the guides or the help of local residents. Educational opportunities include such aspects of activities related to rural green tourism as ethnographic study of the territory, collection of samples of folk art, cultural and artistic, applied and applied tourism, etc. A good example of tourist attractions that attract tourists and bring profit to rural residents and rural communities can be the organization of festivals, exhibitions, folk festivals, that is, various actions. They fit well into the rural romance and, at the same time, give tourists the opportunity to take part in interesting events.

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<sup>1</sup> Mandych, O.V., Romanyuk, I.A., Nikitina, O.M. (2016): PR-markety`ng yak ody`n z instrumentiv pidvy`shhennya konkurentospromozhnosti pidpry`yemstva [PR-marketing as one of the tools of increasing the competitiveness of the enterprise]. *Visny`k KhNTUSG : ekonomichni nauky` - Bulletin of KHNTUSG Economic science*, No 177, pp.160-165.

<sup>2</sup> Kvyatko, T. M. (2014): Ahromarketynh yak skladova pidvyshchennya efektyvnosti diyalnosti vitchyznyanykh silhospidpryyemstv [Agromarketing as a warehouse for efficient business activities of foreign companies]. *Naukovyy visnyk LNUVMB - Scientific Bulletin of LNUVMB*, no 1 (1), pp. 213-218.

Social components of innovations of enterprises of rural green tourism form such important elements of quality and ability of rural residents, which accept tourists as again education and culture; manners and behavior; ability to receive guests; knowledge of languages for receiving foreign tourists; basics of business communication<sup>1</sup>. Special skills are also appreciated: culinary skills, winemaking or classes in certain types of folk art or other creativity (embroidery, pottery, drawing), which may be of interest to tourists.

Therefore, to stimulate the development of rural green tourism enterprises, the following innovative measures are needed, which are aimed at creating a competitive national tourist product on the international and domestic market; ensuring favorable tax, currency, customs and other types of control; expanding the scope of rural tourism services; ensuring the integrated development of tourist areas and centers.

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<sup>1</sup> Babko, N.M. (2016): Instrumenty upravlinnya vidtvorennyam kadrovoho potentsialu ahrarnykh pidpryyemstv [Tools of management of reproduction of personnel potential of the agrarian enterprises]. *Visnyk Sumskoho natsionalnoho ahrarnoho universytetu. Seriya "Ekonomika ta menedzhment"*, vol. 1 (67), pp. 19-23.

### 3.10. MANAGEMENT OF ACTIVITIES OF ENTERPRISES OF THE TOURISM INDUSTRY ON THE BASIS OF MODERN INFORMATIONAL TECHNOLOGIES

A socially oriented market economy contributes to creating conditions for leisure and recreation of the population. Satisfaction of recreational, cognitive, spiritual and other needs of people through their movement in the social space by promoting tourism development <sup>1</sup>.

Today, tourism is one of the most profitable branches of the world economy. In many countries it is the tourism industry is the main source of income of the state. Tourist activity is not only the attraction and effective use of recreational resources. The development of tourism at the regional level promotes the effective use of production, scientific and technical, socio-cultural, and environmental potential of a particular territory. So, the tourism industry acts a catalyst for regional economic development <sup>2</sup>.

National tourism industry is in the stage of becoming. The number of Ukrainian citizens who traveled abroad has a tendency to increase. One of the factors for this phenomenon is functioning visa-free regime with the EU, which came into force in May 2017. Today, in the conditions of the rapid development of information technologies on the Internet there is a huge amount of available information, which allows ordinary people to independently order a trip, buy tickets for flights, track profitable offers, in the system on-line to make payments for travel services, which partly leads to the elimination of intermediaries in the market of tourist services.

At the same time, the analysis of tourist stream shows that during the years 2000-2017 there were negative trends in the development of tourism, namely, there was a decline in the "Incoming tourist stream".

At the same time, the analysis of tourist stream shows that during the years 2000-2017 there were negative trends in the development of tourism, namely, there was a decline in the Incoming tourist stream. In 2017, the number of citizens of Ukraine serviced by tour operators and travel agents was: 2365424 legal entities and 401397 physical persons; foreign citizens - 38563 legal entities, 1042 individuals <sup>3</sup>.

During the specified period also decreased the number of subjects of tourism activity. Thus, in 2011, their number was 4157 (of which 2165 legal entities, 1992 - physical persons), in 2017 their number decreased by 16.5% to 3469 (1743 legal entities, 1726 individuals).

*Table 1. Number of tourists serviced by tour operators and travel agents<sup>4</sup>*

Category of tourists	2011	2015	2016	2017	2017 by 2011, %
serviced by legal entities					
Citizen of Ukraine	1441157	1800277	2216323	2365424	164,1
Foreigners	287185	14550	33784	38563	13,4
serviced by physical persons					
Citizen of Ukraine	109912	204140	298212	401397	365,2
Foreigners	2229	609	1287	1042	46,7

The reasons for this downward trend are:

<sup>1</sup> Kryveha, L.D., Holovashenko O.V. Turyzm: problemy vdoskonalennia pravovoho rehuliuвання v Ukraini [Tourism: Problems of Improving Legal Regulation in Ukraine]. web.znu.edu.ua. Retrieved from : <http://web.znu.edu.ua/herald/issues/archive/articles/2754.pdf>.

<sup>2</sup> Panukhnyk O. (2015): Innovatsiyni potentsial rehionalnoho rozvytku turyzmu ta rekreatsii iz zaluchenniam molodizhnogo resursu: peredumovy formuvannya ta vektornist upravlinnia [Innovative potential of regional development of tourism and recreation with attraction of youth resource: preconditions of formation and vectoriality of management]. Halytskyi ekonomichnyi visnyk - Halytskyi economic Bulletin, No. 2, pp. 5-12. Retrieved from : [http://nbuv.gov.ua/UJRN/gev\\_2015\\_2\\_3](http://nbuv.gov.ua/UJRN/gev_2015_2_3).

<sup>3</sup> Statystychnyi zbirnyk «Turystychna diialnist v Ukraini u 2017 rotsi» [Statistical collection "Tourist activity in Ukraine in 2017"]. (n.d.). Kyiv : State Statistical Service of Ukraine, p. 90.

<sup>4</sup> Sait derzhavnoi sluzhby statystyky Ukrainy [The site of the State Statistics Service of Ukraine]. ukrstat.gov.ua. Retrieved from [http://www.ukrstat.gov.ua/operativ/operativ2007/tyr/tyr\\_u/potoki2006\\_u.htm](http://www.ukrstat.gov.ua/operativ/operativ2007/tyr/tyr_u/potoki2006_u.htm).



1) military actions, annexation of territories of the Autonomous Republic of Crimea, the city of Sevastopol, as well as territories in Donetsk and Lugansk regions;

2) insufficient development of the tourism market infrastructure: unsatisfactory state of communication, especially road, often the inconsistency of conditions in the accommodation establishments of tourists and vacationers;

3) recreation zones, cultural and architectural monuments of Ukraine require reconstruction and bringing to a proper condition;

4) insufficient use of the latest information technologies in the tourism sector, namely: low level of information and communication infrastructure development; absence of tourism profile databases in separate regions of the country; limited information and advertising of tourist products in the interregional, national and international markets; imperfection of the mechanism of information exchange of business entities in the field of tourism and the environment through the Internet; low level of development of virtual tourist enterprises and centers; absence of the state electronic system of provision of subjects of tourist activity by operative information on demand, supply, prices, tariffs.

In spite of the above problems, in 2017, the trend of increasing the number of Incoming tourists in Ukraine after the double fall of the index in 2014 continued (Table 2). On the first place among the countries, according to the data of the State Border Guard Service of Ukraine, tourists from Moldova, on the second - Belarus, on the third - Russia. The number of tourists from Turkey, as well as Israel, has increased <sup>1</sup>.

*Table 2. Distribution of Incoming tourists serviced by tour operators and travel agents for the purpose of travel and tourism*

Purpose of the trip / kind of tourism	2011	2015	2016	2017	2017 by 2011, %
Legal entities - all	109912	14550	33784	38563	35,1
Of these, in order to:					
service, business, training	3669	2195	2331	4736	129,1
rest	80591	9782	25496	29985	37,2
treatment	15544	2427	5913	3009	19,4
sports tourism	6031	-	3	225	3,73
specialized tourism	342	81	-	258	75,4
other	3735	65	41	350	9,4
Children aged 0-17	7024	46	267	320	4,6
Individuals - all	2229	609	1287	1042	46,7
Of these, in order to:					
service, business, training	112	14	30	24	24,1
rest	1689	186	861	409	24,2
treatment	218	409	396	609	279,4
sports tourism	-	-	-	-	-
specialized tourism	209	-	-	-	-
other	1	-	-	-	-
Children aged 0-17	286	28	5	33	11,5

Tourist companies of Ukraine now operate in a more competitive environment and are forced to improve their range of services, to conduct a more flexible pricing policy. A clear evidence of the increase in the stream of Ukrainians in the Schengen Area is the aggravation in recent years of competition for customers between air carriers in Ukraine. As a result, the number of tourists serviced by tour operators and travel agents in 2017 increased by 25,6820 compared to 2016.

<sup>1</sup> Chastka turizmu v svetovomu VVP torik stanovyla ponad 10% [The share of tourism in world GDP last year was more than 10%]. (n.d.). [www.ukrinform.ua](http://www.ukrinform.ua). Retrieved from : <https://www.ukrinform.ua/rubric-tourism/2431133-castka-turizmu-v-svitovomu-vvp-torik-stanovila-ponad-10.html>.

In an environment of globalization, the effective development of tourism requires the use of modern management methods based on information technology and international communication systems. Thus, an important element management mechanism and regulation of tourism is to develop the information component that can provide its innovative development, information resources as a basis for decision-making.

Promotion of tourism activity and formation of a positive international image of the country should facilitate the placement of ordered information in the network of scientific and advertising character with the use of bibliographic electronic resources. The formation of such resources requires careful analysis of the spiritual, aesthetic, socio-cultural needs of different categories of internal and external tourists. Information placed on websites must comply with international standards of information. This direction of work is impossible without state support and appropriate quality control, because such information resources are the basis of "e-tourism".

One of the directions that will contribute to the dynamic development of the tourism industry in Ukraine and will allow local tourist companies to compete on the world market is the use of modern automation and information technologies.

World Tourism is a global computerized business related to providing tourist services. Tourist services are characterized by various features, in particular, complexity and variety (both from the point of view of the produce and the consumer), lack of material expression, variability and information saturation. These characteristics actualize the need for the use of information technology in the sphere of tourism.

In developed countries, there is now a rapid development of information technology and the continuous implementation of them in the relationship "seller-buyer".

Among the leading universities that are actively engaged in issues of information technologies in tourism, are:

- Bournemouth University (England);
- University of Lugano (Switzerland);
- University of Central Sweden;
- Hong Kong Polytechnic University (China);
- University of Central Florida (USA).

The following forms of using the Internet: the communication and advertising, promotion of tourist services; Marketing researches; electronic presentations; electronic international exhibitions and fairs; electronic booking and reservation systems; independent formation of the tour; Electronic catalogs of tourist products by directions and countries; quick access to receiving weather information, prices, tariffs, availability of transport; electronic payments; online tourism and more. At the same time, the Internet serves at the same time the most massive and almost the cheapest means of disseminating information and providing feedback.

Tourist firms can use various Internet resources for advertising: electronic bulletin boards on popular pages, commercial teleconferences; special sections for advertising on Web-sites and Web-portals. An effective way of advertising is to use the capabilities of search engines.

Thanks to the Internet, consumers can decide on travel services and, upon request, receive an answer in real time. Today, hotels are creating their own Internet servers, which enables potential customers to get acquainted with hotel information and book a room in advance.

Increasing the popularity of hotels contributes to the use of their technologies "Smart House", which enables economically to use energy resources, water, etc. and minimize the negative impact on the natural environment.

Innovative business card is the website of hotels, so their interface should be simple and convenient, and support is around the clock. On website, potential customers can see general information about the hotel, surrounding historical and cultural places, view photos of rooms, places of living and rest, and sometimes - get an on-line tour of the hotel.

High efficiency in the promotion of hotel services in the market have Internet marketing communications: contextual advertising, e-mail marketing, e-coupons, e-loyalty programs, forums, blogs, pages in social networks, viral advertising and more.

Especially popular today is the Internet, computer reservation systems of hotel services, car rentals, excursions or cruises and more. System on-line booking saves time and resources to travel

agents located in different time zones. On the tourism market Ukraine operate global distribution reservation system «Amadeus», «Galileo», «Sabre», «Worldspan», whereby travel agencies can access the database providers of tourist services in any country.

For the effective operation of hotel reservations, the hotel's website should provide detailed information, including photos and description of rooms, their price category, as well as a list of additional services that potential customers from around the world can receive. The centralized sales system creates opportunities for storing information in the electronic personal office of the hotel, from which it can manage sales through all channels.

Processing of hotel reservation orders through its own website is done by the reservation service of the hotel. Standard requests are processed by an automated control system and preliminary confirmations are sent in response. After making preliminary guarantees from the client (prepayment, guarantee letter, etc.), the hotel finally confirms the reservation of the place and changes the status of the number on the website. Orders placed on the hotel website must be removed systematically and have priority when booking. However, because of poor security of financial settlement in our country service online reservation today underdeveloped. Therefore, hotels often make discounts for customers who reserve place in this way.

When booking hotel reservations from different sources, hotels have the opportunity to attract more consumers of different categories. However, in order to process booking information on time and efficiently, it is necessary to develop convenient unified forms of electronic documents and establish a system for their rapid processing. The creation of an electronic document should be preceded by a detailed analysis of the tourist information presented in the open information space and the study of consumer inquiries contained therein.

In the period of the information society, effective management of the hotel business is impossible without the electronic administration of hotel services, which allows for quick access to information about the services of the company, as well as to process customer orders in a timely manner. Automated control system (ACS) allows you to accumulate data and automate planning processes, accounting for management of all are directions of the tourism company. The introduction of electronic documents creates opportunities for automated documentation processing, integration of the hotel into a single information space. All this contributes to the acceleration of document circulation in the tourism segment, improving the quality of hotel services and improving the competitiveness of the hotel business as a whole <sup>1</sup>.

When connecting ACS to the global Internet, the tour operator has the opportunity to analyze trends and interactions in the market, to bring in line with the market conditions for the implementation of its own packages of services, that is, to quickly adjust the marketing and pricing policy.

Effective functioning of tourist sites requires the competent use of marketing policy tools: media, banners, contextual advertising, distribution of site bulletins by e-mail to interested organizations, use of search engines, provision of feedback, etc.

A promising form of the relationship between tourism business with potential customers is the use of Cookie-files that allow WEB-servers to identify users. Cookie-files used in advertising, for example, provide an opportunity to determine the reaction of the consumer to advertising and in general its effectiveness.

Information technology is an effective tool for marketing in tourist enterprises. Marketing information is used by tourist agencies for marketing research, development and marketing strategy implementation; formation of a nomenclature and definition of necessary volumes of tourist services; definition of pricing methods and loyalty programs; marketing communications, etc. The ability to track information on the status of the tourism market quickly accelerates management decisions.

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<sup>1</sup> Smihunova O.V. (2017): Informatyzatsiia protsesiv upravlinnia v hotelnomu biznesi [Informatization of Management Processes in the Hospitality Business]. Proceedings from Marketing Innovation in Education, Tourism, Hotel-Restaurant, Food Industry and Trade: Mizhnarodna naukovo-praktychna internet-konferentsiia, prysviachena 50-richchiu zasnuvannia KhDUKhT (3 zhovtnia 2017 roky) - An International Scientific and Practical Internet Conference devoted to the 50th anniversary of the establishment of KHDUKT. (pp. 395 - 397). Kharkiv : KhDUKhT. hduht.edu.ua. Retrieved from : [http://www.hduht.edu.ua/images/hduht/nauka/conf/2017/tezi\\_03.10.17.pdf](http://www.hduht.edu.ua/images/hduht/nauka/conf/2017/tezi_03.10.17.pdf).

Suppliers of tourist services are organizations of various spheres of activity: hotels, transport companies, insurance companies, food establishments, excursion bureau, etc. To promote their services in the tourism market, coordination of their marketing efforts is required.

Ukraine has a huge tourist potential. However, today even Ukrainians are not aware of its diversity. In the conditions of economic instability, information technologies create conditions for the establishment and development of virtual tourist firms. This is especially true for tourist entrepreneurial structures of small business, represented, in particular, in green- tourism, eco-tourism, etc.

Virtual tours, contributing to the intellectual growth of "virtual tourists", give rise to their desire to visit museums and other interesting places in reality. The virtual tourist firm is an "information system of interaction between the subjects of tourism activity through Internet technologies for creation of tourism product and its sale to consumers" <sup>1</sup>.

Barriers to the creation and operation of such virtual organizations in Ukraine are obstructed by the absence of a legislative framework; legal and technical aspects of the work of information systems (for example, confidentiality of information, viral attacks, low level of personnel qualification), financial and, most importantly, psychological readiness of consumers to receive virtual services.

A promising form of economic integration is the creation of virtual regional associations of tourist enterprises and close to them in the sphere of business. The activity of such tourist associations involves close interaction with state authorities, various economic entities: carrying out joint activities and realization of projects of effective use of tourist and recreational resources; compatible advertising, marketing, image politics; forming a united information and analytical base on the activities of tourism enterprises, etc.

Joint efforts should promote the formation of a positive image of representatives of tourism business in the regions, increased demand for tourism services, the establishment of an investment climate, which is a prerequisite for the growth of interest of tourists in the presented tourist service <sup>2</sup> contributed to the development of domestic Ukrainian tourism, as well as the export of tourism services by Ukraine.

The informational saturation of the tourism industry requires the active implementation and application of information technology, which will allow it to be effectively managed. Application of modern Internet technologies creates conditions for operative communication, identification of individual needs of clients, increase of speed of service and improvement of quality of tourist services, establishment of feedback, etc.

The activities of travel agencies are impossible without a well-established work of information systems. Today, the Internet is an important tool for globalization both for the entire national economy and for tourism, in particular. The implementation of almost all major business processes in tourists companies is impossible to access the global computer network.

Enterprises of the tourism sphere need state support. "Tourist" sections on the sites of state authorities and territorial communities should encourage a potential tourist to visit a particular tourist or recreational place.

It is necessary to formulate clear legislative norms that would regulate the tourism business against the background of Ukraine's entry into the world information space.

The joint efforts of the entrepreneurial structures of the tourist business and related industries with the assistance of the state should be directed at working out a set of measures aimed at improving the existing system for the use of various types of information technologies and

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<sup>1</sup> Melnychenko S.V. (2010): *Informatsiini tekhnolohii v turyzmi: teoretychni ta praktychni aspekty* [Information technologies in tourism: theoretical and practical aspects]. *Visnyk Zaporizkoho natsionalnoho universytetu - Bulletin of the Zaporizhzhya National University*, No. 2 (6), pp 129–138.

<sup>2</sup> Hliebova A.O., Makhovka V.M. (2015): *Virtualni obiednannia yak suchasna forma pidtrymky i rozvytku innovatsiinoi diialnosti na turystychnykh pidpriemstvakh Poltavskoho rehionu* [Virtual association as a modern form of support and development of innovation activity at tourist enterprises of the Poltava region]. *Proceedings from Problems of formation and development of innovation infrastructure :III Mizhnarodna naukovo-praktychna konferentsiia. (14-16 travnia 2015 r.) – III International scientific and practical conference* (pp. 134 – 141). Lviv : Natsionalnyi universytet "Lvivska politehnika".

formulating the provisions of the target program of development of information technologies in the activities of enterprises of the tourism industry.

Tourism is a promising sector for Ukraine, capable of providing employment, combining various branches of the national economy and contributing to the economic growth of the state.

On our point of view, information systems, data banks, networks and technologies have a special role in the development of the tourism industry, being not only an important factor, but also an integral part of tourism products and services.

They contribute to increasing their accessibility; disclosure of competitive advantages at the level of enterprises in general, provide consumer awareness, therefore, the dynamics of tourist markets.

Thus, by actively using the advantages of information systems and technologies and introducing them into activities aimed at increasing the marketing and advertising of tourist industry objects, it is possible to ensure a significant increase in the level of development of the tourism sector in general.

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### 3.11. GENERALIZATION OF SCIENTIFIC APPROACHES TO THE DEFINITION OF THE PRINCIPLES OF MANAGERIAL ACCOUNTING

In the conditions of market economy, high uncertainty, instability of the legal framework, business entities need to constantly monitor the market, predict the development of events in a volatile environment, deeply analyze the state and activities of the enterprise and on this basis make informed decisions aimed at ensuring the efficiency of activities, increasing competitiveness in the domestic and foreign markets. In addressing these issues, a large role belongs to the managerial accounting system, the importance of which is particularly increased with the increase in the speed and volume of information flows.

Globalization of markets and capital, strengthening of competition is on internal and external markets, limit nature of resources, increase the standard of living of population is pulled out by the new requirements to the management, predefined by the necessity of passing to steady development, at that adhere to the condition of the economy growing of business entities, ecological prosperity, requirement of social justice and realization of rights for citizens is provided. Therefore, attention is presently accented on creation of cost on the markets of products or services (for clients) and capital (for shareholders) markets, and also for satisfaction of necessities of other participants by the effective use of present resources and environmental preservation. It needs new approaches to the level of data ware of process of acceptance of managerial decisions on enterprises.

The General study of the Ukrainian practice shows that the management often uses methods that are based mainly on intuition, the experience of the head, the main specialists of enterprises and traditions that have developed historically. This state of affairs leads to negative consequences in the activities of the enterprise. In order to prevent unproductive costs and losses, each business entity is interested in the organization of a rational management accounting system that will allow management to make quality management decisions. An important component of managerial accounting is compliance with the principles on which its construction should be based. Developed Global principles of management accounting, which are advisory in nature, aimed at optimizing decisions and achieving strategic goals of enterprises to create and maintain value.

Theory and practice of management accounting in foreign and domestic literature devoted to scientific works: Vahrushina M.A.<sup>1</sup>, Karpova T.P.<sup>2</sup>, Druri K.<sup>3</sup>, Needles B.<sup>4</sup>, Golov S.F.<sup>5</sup>, Napadovska L.V.<sup>6</sup>, Butynets F.F.<sup>7</sup>, Lyshylenko O.V.<sup>8</sup>, Partyn H.O.<sup>9</sup> and etc. These publications consider the essence of managerial accounting, especially its methodology and organization, the possibility of application in enterprises. However, the scientists pay little attention to managerial accounting principles, which are important components of the methodology of any kind of accounting.

A research aim is generalization of the scientific approaches to the definition of the managerial accounting, disclosure their essence and features in the conditions of the use of different registration techniques and methodologies according to national requirements.

The disclosure of theme was carried out by means of such methods of research as: analysis, synthesis and generalization.

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<sup>1</sup> Vahrushina M.A. Managerial accounting: [Tutorial]. – M.: Omega – L, 2004. – 576 p.

<sup>2</sup> Karpova T.P. Fundamentals of managerial accounting: [Textbook]. – M.: Infra – M, 1997. – 392 p.

<sup>3</sup> Druri K. Managerial production accounting. introductory course: [Textbook]. – M.: YUNITI – DANA, 2005. – 735 p.

<sup>4</sup> Needles B. Principles of accounting/ B. Needles, H. Anderson, D. Caldwell; Translation from english. [Under the editorship of J. V. Sokolova]. – 2nd edition, stereotype. – M.: Finance and statistics, 2004. – 496 p.

<sup>5</sup> Golov S.F. Managerial accounting: [Textbook]. – K.: Libra, 2003. – 704 p.

<sup>6</sup> Napadovska L.V. Basic principles of managerial accounting // Actual problems of economy. - 2013. - №1. - P. 173-181.

<sup>7</sup> Butynets F.F., Chyzhevska L.V., Herasymchuk N.V. Managerial accounting: [Tutorial] – Zhytomyr: GITI, 2000. – 448 p.

<sup>8</sup> Lyshylenko O.V. Managerial accounting: [Tutorial] – Kyiv: publishing house "Center of educational literature", 2004. – 254 p.

<sup>9</sup> Partyn H.O., Zahorodnii A.H. Managerial accounting: [Tutorial] - K.: knowledge, 2007. - 303 p.

The basis for the development of different types of accounting are the relevant elements of the accounting system, among which should be highlighted the basic principles (provisions). The system of managerial accounting must adapt to the conditions of a particular enterprise, developed on the basis of the goals and capabilities of management. Therefore, the organization of internal accounting and control should use the principles of their construction, which can be both general and specific. The principles of managerial accounting are important in the development of accounting methodology and its further improvement. It is based on the principles of the choice of models of construction of accounting systems that meet the requirements of different concepts of managerial accounting. When studying the principles of management accounting, it is necessary to take into account that the place and role of managerial accounting in the general accounting system; goals implemented by the management accounting system; the relationship between the company's goals and managerial accounting methods; the possibility of extensive use of relevant information in order to prevent negative deviations and assess the consequences of decisions.

Analysis of scientific publications shows that the views of scientists on the interpretation of the principles of managerial accounting are very different. Some accounting principles scientists identify with traditional accounting requirements and elements of accounting methods. We believe that the principles that are generally recognized for (financial) accounting in the management accounting system have their own specific features, as the information in it should be focused on the manager and his needs, and its differentiation by objects of production activities (responsibility centers) allow to the group and analyze data on the relevant features and periods in order to assess their impact on the final results of current, tactical and strategic decisions that are taken. Therefore, generally accepted accounting principles in the context of their use in managerial accounting require appropriate interpretation. Optional maintenance, variety of accounting techniques used in management accounting, do not allow the mechanical transfer of the principles of (financial) accounting in the practice of managerial accounting. However, the value of general methodological (financial) principles of record-keeping it does not follow to underestimate for organization of an administrative account. This is due to the fact that administrative decisions must be base on reliable data and self-weighted professional judgments. The initial information base for making effective decisions is, first of all, the primary documents and financial statements prepared according to the requirements established by the legislation. In addition, in managerial accounting can be widely used such elements of the financial method of accounting as: accounts and double entry, documentation, evaluation, calculation, balance sheet, etc. However, unlike financial accounting, where the procedures for the application of these methods are defined at the legislative level, in the managerial accounting system, they become a management tool provided their multivariate use. That is, both the principles and methods of accounting in management accounting acquire their own characteristics, due to the specifics of different types of accounting. Along with this, managerial accounting has a number of specific principles that are not used by the financial accounting system. The list of inherent managerial accounting principles in the scientific literature is presented in tab.1.

*Table 1. List of own principles of management accounting in the scientific literature*

Principles of managerial accounting	Source
Efficiency of information. Confidentiality of information provided. Usefulness of information. The flexibility of the system of management accounting. Management accounting predictability. Cost-effectiveness of the information provided. The principle of delegation of responsibility and motivation of performers. The principle of management by exception. The principle of controllability of indicators of internal reporting.	Vahrushina M.A.
The continuity of the enterprise. Relevance. Materiality. Reliability. Cost accounting. Periodicity. Responsibility of income and expenses. The unity of units in the planning and accounting of production. Sequence and multiple uses (complexity) of primary and intermediate information. The completeness and the analyticity providing exhaustive information on objects of accounting. Normative and budgetary (estimate) methods of control over the movement of production, increasing costs and results of production.	Karpova T.P.

Principles of managerial accounting	Source
The logic of the formation of internal reporting indicators that reflect the communication link between the levels and control object. Frequency reflecting the production and commercial cycles. Cost accounting for the processes of the enterprise. Cost accounting based on product movement. Line of income and expenditure on the basis of the time definiteness of factors of economic activities. Recognition of results of activity of structural divisions of the enterprise.	Ivashkevich V.B.
Focus on meeting the information needs of management, solving tasks of internal management of different levels of rights and responsibilities. Focus on the grouping of costs and results of activities by in-plant, in-house divisions of the enterprise. Monitoring of all financial and economic activities of the enterprise. Calculation of deviations from the specified parameters of use, focus on identifying factors that affect the deviation (control over deviations). The principle of methodological pluralism. Orientation of accounting to achieve strategic goals of the enterprise. The principle of effectiveness. The principle of responsibility for decision-making. The principle of complexity. The principle of "different cost for different purposes." The principle of efficiency.	Napadovska L.V.
The principle of accounting orientation on achievement of the strategic goal and current tasks of economic development of the enterprise. The principle of methodological independence. The principle of systematic comparison of costs and performance. The principle of multivariate. The principle of complexity. The principle of communication.	Partyn H.O., Zahorodnii A.H.
The continuity of the enterprise. Periodicity. Complexity. Completeness and analyticity of information. Evaluation of the results of the structural units of the enterprise. Budget method of cost management.	Lyshylenko O.V.
Evaluation of the results of the structural units of the enterprise. The principle of acceptability and reuse of information. The principle of complexity. The principle of the budget management method. The use of common planning and accounting units in the planning and accounting of production.	Butynets F.F., Chyzhevska L.V., Herasym-chuk N.V.
The principle of methodological independence. The principle of orientation to achieve strategic goals. The principle of effectiveness. The principle of evaluating the results of the structural units of the enterprise. The principle of responsibility. The principle of multi-variant. The principle of complexity. The principle of the budget management method. The principle of dependence. The principle of causality. The principle of interconnection. The principle of "different cost for different purposes."	Farion I.D., Pysarenko T.M.
Making decisions based on the income statement, balance sheet, cash flow forecast. The division of costs into direct and indirect, fixed and variable. Cost accounting methods (accounting for absorbed costs, accounting for truncated (marginal) costs, post-operative accounting), which include the determination of the cost of products, services or costs of the unit and cover the concept of control and cost reduction, as well as the model of cost behavior.	Skoun T.
Provision of personnel at various levels of information management necessary for management decision-making at the operational, tactical and strategic levels of management. Justification of expenses for each production unit in which there are relations "volume of activity-expenses-profit". Generalization of information on responsibility centers. Monitor the production, costs and profits of each of the responsibility centers by comparing actual figures with the corresponding estimates (budgets).	Radetka L.P., Ovod L.V.

To their own principles of managerial accounting scientists include the principles of financial accounting (business continuity, compliance of income and expenses, frequency, etc.), and accounting requirements (reliability, efficiency, etc.), and those principles that other scientists include in the general managerial accounting system (completeness and analyticity of information), as well as elements of the accounting method. By the way, the choice of methods in the managerial accounting system is determined by the tasks facing managers.

In general, there are many modern methods and tools of managerial accounting, which are widely used especially in foreign enterprises. These are, for example, process budgeting, cost



calculation, value chain analysis, enterprise risk management, etc. None of them is mandatory, since enterprises must choose and regularly analyze the approaches that best meet their needs.

Some other principles of managerial accounting have the right to exist and develop.

Summarizing the above, we can distinguish in the scientific literature such approaches to the definition of the principles of managerial accounting:

- principles of managerial accounting are generally recognized principles of accounting (financial) and specific principles of managerial accounting;

- principles of managerial accounting include the principles of accounting (financial), General and specific principles of managerial accounting;

- managerial accounting is based only on general (or own) principles.

These approaches are united by the understanding that management accounting as a subsystem of accounting has its own principles. Taking into account their diversity, it can be argued that their list requires universalization in order to improve the efficiency of the management accounting system. Global principles of managerial accounting have been developed to optimize management decisions and achieve tactical and strategic goals of the enterprise.

The document "Global Principles of Managerial Accounting" provides the following definition of management accounting: managerial accounting is the process of obtaining, analyzing, communicating and using financial and non-financial information relevant to decision-making to generate and maintain value for the organization<sup>1</sup>. It follows from the definition that the main task of managerial accounting is to improve the decision-making process. In addition, managerial accounting allows you to select and analyze the most relevant information to create and maintain value. And another important aspect – all decisions must coincide with the development strategy of the enterprise. According to the document, the global principles of managerial accounting are the fundamental values, qualities, norms and characteristics that represent the managerial accounting<sup>2</sup>.

Identified four global management accounting principles: communication provides insight that is influential, information is relevant, impact on value is analyzed, stewardship builds trust.

Today, the Global principles of management accounting are advisory in nature; however, there are plans to make them mandatory for those companies that are aimed at stable development<sup>3</sup>.

The construction of the managerial accounting system depends on many factors, in particular, it is determined by national traditions, the size of the enterprise, the characteristics of the production process and products, management goals; each entity will form its own principles of managerial accounting. The most effective for enterprises will be the implementation of universal global principles of managerial accounting, which are the property of the world community.

The principles of managerial accounting, as well as financial accounting, are not constant. They will be constantly improved with the development of theory, science and practice of accounting.

General methodological principles of financial accounting play an important role in the rational organization of the managerial accounting system in enterprises. At the same time, managerial accounting due to its specific features and objectives should be based on universal and specific principles, taking into account the needs of each enterprise in the necessary information. Universal are the Global principles of managerial accounting, which have incorporated the best practices of foreign countries and allow you to build a managerial accounting system that will meet the requirements of national standards for effective decision-making.

The list of principles of managerial accounting in the scientific literature is inconsistent and controversial. The approaches to the definition of the principles of managerial accounting are

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<sup>1</sup> Global principles of management accounting. Effective managerial accounting: optimizing solutions and creating successful organizations // <http://journals.urau/index.php/wissn021/article/view/129168>. P. 8.

<sup>2</sup> Global principles of management accounting. Effective managerial accounting: optimizing solutions and creating successful organizations // <http://journals.urau/index.php/wissn021/article/view/129168>. P. 49.

<sup>3</sup> Global principles of management accounting. Effective managerial accounting: optimizing solutions and creating successful organizations // <http://journals.urau/index.php/wissn021/article/view/129168>.

generalized, it provides the need for systematization and universalization of its own principles of managerial accounting.

Further research will be aimed at developing the author's own principles of managerial accounting, determining the degree of interdependence of the principles of financial accounting and managerial accounting in decision-making.

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## **ANNOTATION**

### **Part 1. INNOVATIVE TOOLS THAT DEVELOP SOCIO-ECONOMIC SYSTEMS**

#### **1.1. Babenko V., Rudenko S., Nakisko O. DEVELOPMENT OF AGRIBUSINESS OF UKRAINE: AN INNOVATIVE ASPECT**

An approach to agribusiness development based on the application of analytical methods in the management of innovative processes of processing enterprises using the tools of economic and mathematical modeling taking into account the features of agro-processing production is proposed. The statistical tools analyzed in the form of canonical analysis of the relationship between the main components of the processing enterprises of agribusiness on the case of production of the main types of products from crop raw materials and the availability of plant products for it confirms the existence of a mechanism for their interconnection. It is a practical toolset for making managerial decisions for forecasting tactical and strategic directions of development of agribusiness of Ukraine and the export of agricultural production to the global food commodity markets.

#### **1.2. Dudnyk E., Minenko S. IMPORTANCE AND ROLE AHROINNOVATIONS IN THE SYSTEM FORMATION OF THE ENTERPRISE COMPETITIVENESS**

The article considers and generalized the theoretical approaches to definition of "innovation". Paid to attention features agroinnovation and considered some of them. The necessity to monitor possibilities of external environment for agrarian enterprises and innovation activity for formation of competitive advantages and increase of competitiveness of agricultural industry. Their own vision of the interrelation between innovative activities of agrarian enterprises and competitiveness level is suggested.

#### **1.3. Dudnyk E., Sahachko Yu., Kraliia V. PLANNING OF THE ORGANIZATIONAL STRUCTURE OF THE ENTERPRISE MANAGEMENT IN THE CONDITIONS OF IMPLEMENTATION INNOVATIVE TECHNOLOGIES OF PRODUCTION AND TECHNOLOGICAL CHANGES**

Modern organizations function in conditions of unstable external environment, intensification of competition, increase of unpredictability conjunctural changes of the market. The dynamism of entrepreneurial activity requires flexibility, mobility and the ability to develop in conditions that change constantly, which stipulates necessity of the construction an appropriate management structure.

#### **1.4. Holovanova H., Kralia V. RISKS IN THE PROCESS OF MANAGEMENT OF COMMODITY SPECIALIZATION OF AGRICULTURAL ENTERPRISES**

The article deals with the main categories related to the specialization of agrarian production, its advantages and disadvantages are named. The main groups of risks described and described in detail and some ways of their elimination.

#### **1.5. Hutorov A., Groshev S., Krasnorutskyy O. STRATEGIC MANAGEMENT PRINCIPLES OF THE USE EFFICIENCY OF LAND RESOURCES OF FARM HOUSEHOLDS OF UKRAINE**

Organizational and economic bases of increasing efficiency of farms' land resources using are improved. The model of the organizational and economic mechanism of efficiency management of farms' land resources using by structuring and allocation of tools and methods of exogenous and endogenous influence on the organizational and economic mechanism, the subject and object structure of management, the principles, methods and mechanisms of implementation of administrative decisions and also information support of control for land resources' rational use of which, unlike existing, considers the system of economic sanctions for decline in grounds production and compensations to farmers, which are carried out as granting means of the state support for increases in a qualitative condition of lands is developed.

#### **1.6. Kralia V., Podolska O., Kharchevnikova L. FORMATION OF STRATEGIES OF ORGANIZATIONAL CHANGES IN MANAGEMENT OF AGRICULTURAL ENTERPRISES AS A NECESSARY CONDITION FOR THEIR INNOVATION DEVELOPMENT**

The article deals with a classifications of organizational changes, given a characteristic strategic changes in relation to innovative development of enterprise, certainly principles of management changes. Grounded the systematic approach to manage strategic changes in innovation development. The system of strategic changes management is given, its elements are defined, the composition of functions, factors of the external environment influencing the system.

#### **1.7. Kuskova S., Hridin O. FACTORS OF EFFICIENCY OF INNOVATION-INVESTMENT ACTIVITY OF AGRICULTURAL ENTERPRISES**

Sustainable development of the agrarian sector of Ukraine's economy is determined by the efficiency of innovation activity, which ensures constant updating of material and technical base, implementation of resource-saving technologies and obtaining competitive products. In modern conditions, innovation is an effective means of competitive struggle and a crucial condition for the socio-economic development of agrarian enterprises; therefore, transition to an innovation-investment model of development for Ukraine is necessary.

The research is devoted to the study of the factors of efficiency of innovation and investment activity of agrarian enterprises. The essence of innovations and their role in the process of innovation and investment activity is considered. The main factors that promote and hinder the effective innovation and investment activity of agrarian enterprises are determined.

#### **1.8. Lutsenko O.A., Polyvana L.A. STATE SUPPORT OF INNOVATIVE ACTIVITY IN AGRICULTURE OF UKRAINE**

This article shows Ukraine's position on the index of GDP. The dynamics of state budget expenditures for the development of science have been analyzed. The normative and legal base of Ukraine concerning the regulation of innovation processes in AIC is investigated. The tendencies of State financial support on innovation activity were revealed. The priority directions of financial support regulation of the innovative development of agricultural enterprises are suggested taking into account the experience of leading foreign countries.

#### **1.9. Onegina V., Kravchenko O., Babaiev I. ASSESSMENT OF COMPETITIVENESS OF AGRICULTURAL PRODUCT: METHODOLOGICAL ASPECTS**

The purpose of the research is to generalize and develop the methodological approaches to the assessment of competitiveness of agricultural product. The main criterions of its competitiveness, indicators and steps of evaluation have been developed. The express technology of assessment of the competitiveness of Ukrainian agricultural product due to the efficiency criteria on the base of alternative value of resources has been developed and offered.

#### **1.10. Zaika S., Danko Yu. FEATURES OF INNOVATION-INVESTMENT ACTIVITY IN THE FIELD OF PLANTING**

Today, for Ukraine, the task of moving the country's economy to an innovative model of functioning and development is important. This transition is due to increased competition in the market of agricultural products and the integration of the state into the international economic space, which in turn determines the necessity of forming an investment-innovative model of agricultural development, in particular, the crop production sector.

The research is devoted to the study of the peculiarities of the development of innovation and investment activity of agrarian enterprises of Ukraine. The peculiarities of innovation activity and the process of innovation introduction in the production activity of the agrarian enterprises' crop production sector are highlighted.

### **1.11. Stepanenko S. ORGANIZATIONAL CHANGE MANAGEMENT PROCESSES BASED ON THE PROJECT APPROACH METHODOLOGY**

The organizational change management paradigm currently lacks a common methodology for implementing them, and we hypothesize that project approach is one of the possible. The purpose of the study is to develop the main components of organizational change work in accordance with the methodology of the project approach. Using the methodology of the project approach, key provisions of organizational change management have been developed, the basis of which are the processes of forming a project product that reflects the purpose of organizational change, and the project management processes aimed at the effective implementation of the organizational change project. The main branches in the structural decomposition of the organizational change project work are the relevant knowledge areas, which include integration and content management, time and budget management, quality management, project personnel management, procurement management, risk management, communications management and stakeholders.

### **1.12. Vlasenko T. GENERALIZATION OF APPROACHES AND MODELS FOR ENTERPRISE CHANGE MANAGEMENT**

The article looks at existing enterprise change management models and approaches to generalizing them. The most important approaches in change management are presented: context, contextual, process, adaptive, systemic, situational, behavioral, cognitive, psychodynamic, humanistic, competent. The key elements of the concept of strategic change management are presented. The first position concerns the areas of implementation of strategic change as a basis for their making, which requires observance of the peculiarities of management metaphors. The second position concerns the life cycle of the enterprise and industry. Strategic change management requires mandatory monitoring of the state of the environment. Strategic change management should be based on a methodological framework that integrates laws, principles, functions, goals, methods and levers. The next requirement is the need to develop and evaluate the strategic potential of the enterprise. Situational analysis combined with risk management is also important. The last element is building effective stakeholder relationships.

## **Part 2. STRATEGIC MANAGEMENT TOOLS AS A BASIS FOR ENSURING COMPETITIVE DEVELOPMENT OF ENTERPRISES**

### **2.1. Pysarenko V., Mayboroda O. MARKETING LOGISTIC BUSINESS MODEL OF VEGETABLE MARKET DUE TO ZONAL SPECIALIZATION**

The analysis of trends in production and consumption of vegetable products in the regions of Ukraine on the basis of open source data was made. The forecast of volumes of vegetable categories by regions up to 2030 and the satisfaction of the demand for vegetables in the region by regional producers was made. It was discovered that there is a shortage in the Kyiv and Ivano-Frankivsk regions. There is a positive tendency to increase production volumes, which is likely to continue in the near future. The reason for this is the dynamic development of the vegetable market in Ukraine in recent years, which, however, remains not saturated. Produced for consumption in fresh and processed form products will be delivered to the wholesale and retail trade, as well as the public catering network.

## **2.2. Mandych O. PREREQUISITES FOR THE FORMATION OF COMPETITIVE STRATEGIES FOR THE DEVELOPMENT OF ORGANIC PRODUCTION**

In the article the peculiarities of formation of the production and economic components of the vegetable market formation are investigated. Possibilities and current state of functioning of the vegetable industry are determined. Attention is paid to the problems of formation of supply and demand for vegetable products in Ukraine. Problems and prospects of entering foreign markets are outlined. The production and commercial activity of the vegetable growing enterprise is investigated. The main results of the production component of competitive advantage formation are determined. The economic and managerial incentives for engaging in marketing activities to improve performance have been identified. The peculiarities of the development of marketing activities and the possibility of increasing the level of competitiveness on the basis of individual measures are distinguished. Directions for the development of competitive strategies for the introduction of organic production are proposed.

## **2.3. Lyshenko M., Ustik T., Thermosa I. INNOVATIVE MECHANISM FOR IMPROVING ORGANIZATION OF MANAGEMENT BY MARKETING ASSORTIUM ON ENTERPRISE**

Assortment policy occupies an important place in the commodity policy of the enterprise. Properly compiled assortment of goods and services allows you to attract a solvent buyer and achieve the main goal of business - to get the most possible profits. Assortment and its variety - almost the most important element of the commodity policy of any enterprise. Its size and high-quality satisfaction of the needs of customers are closely linked, that is why it is necessary to work on the formation of the range of each company, regardless of its size and the offered goods or services. Therefore, studying the ways and methods of optimizing the range of enterprises is relevant, gaining special significance and practical value. Analysis of assortment policy of the company provides an opportunity to determine that the most relevant for the development of the enterprise and increase sales is the application of the strategy of product development, which involves the introduction of assortment of new assortment positions or improvement existing in the modern market. But for the vast majority of domestic enterprises, it is characterized by an occasional, unsystematic and, consequently, ineffective use of marketing. Such a state of affairs negatively affects the competitiveness of business entities, and Ukraine's accession to the WTO only exacerbated the problem of competitiveness, which can not be resolved by traditional methods. Therefore, creating a holistic marketing system and developing approaches to establishing effective management of it is an urgent task for enterprises.

## **2.4. Sevidova I., Plihun S. DEPENDENCE OF ECONOMIC EFFICIENCY OF VEGETABLE ENTERPRISES ACTIVITY ON THE INFLUENCE OF GLOBALIZATION PROCESSES**

The paper examines the impact of the processes of globalization of the economic space on the activity of enterprises of the vegetable industry and integration of agrarian enterprises of Ukraine into the world market space. The influence of globalization on the activity of agrarian enterprises, which takes into account the prospects of development of export of domestic vegetable products, conformity to world trends of available resource potential, is analyzed. The questions of integration of agrarian enterprises into the wholesale market of vegetable products, the emergence of which is due to the fact that the entire world economic system develops in accordance with the common vector of the process of globalization. It is proved that the formation of integration processes of development of domestic agrarian enterprises should be based on complex transformations from the point of view of modernization of agrarian production, the list of which components of which priority areas is the involvement in the horticultural field of financial and credit resources of investors, the restoration of lost in the course of economic transformation of commodity and financial flows management, the creation of an economic and regulatory framework for phased financial and economic rehabilitation of industry enterprises vegetable growing.

## **2.5. Babko N. DEVELOPMENT OF COMPETITIVE ORGANIC PRODUCTION IN THE AGRO BUSINESS**

Prospects of development of competitive organic production of a specific region on the basis of creation of agritourism cluster are analyzed. The priority components of the economic complex of the studied region are determined. It is established that based on the available resource potential and the actual needs of the region, the creation of an agritourism cluster will allow to combine two priority areas - organic production and tourism.

## **2.6. Duyunova T. FINANCIAL CREDIT SUPPORT OF THE UKRAINIAN AGRARIAN MARKET**

The efficient functioning of any commodity or commodity market cannot be imagined without a well-developed and well-formed system of financial and credit servicing, as one of the most important components of the marketing infrastructure of the market. In general, the problems of financial support for the agricultural market are fairly homogeneous. However, by adapting them to a specific commodity market, we can note some differences that are caused by the diversity of production, distribution and consumption processes. The article defines and analyzes the role of the system of financial and credit support of the agrarian market of Ukraine, the main components of its infrastructure, the shortcomings of the existing system and the recommendations for the further development of the financial and credit support of the agrarian market operators. The research is conducted and the main factors of profit formation are determined, some approaches and methods of analysis of the basic components of profit are considered, and also adaptation of basic ways of perspective development of activity of agricultural producers is suggested.

## **2.7. Kalinichenko S. MARKET POSITION AND FORMATION OF MARKETING ACTIVITIES OF MANUFACTURERS**

In the article the market positions of the enterprises on the grain market are investigated and the main factors of formation of the market position of grain producers are analyzed. Proposed proposals to change the market position of grain producers are to reach a higher level of distribution channels in the market, that is, to take the place of the first intermediary in the current situation. It is determined that the main ways of ensuring the effective formation and implementation of marketing policy of the grain subcomplex enterprise are: search for the optimal structure of sales of the enterprise products; establishing links with members of higher-level distribution channels; elaboration of schemes of direct marketing of products, in particular, processing enterprises, in order to increase the efficiency of its realization; solving the problem of storage of agricultural commodity lots in order to use seasonal price fluctuations; attraction of progressive tools of service of channels of movement of the goods.

## **2.8. Kvyatko T. INNOVATIVE MARKETING TECHNOLOGIES FOR CONDITIONS OF ORGANIC PRODUCTION**

The analysis of development trends of the world market of organic products and the Ukrainian market of environmentally friendly products. It is determined that today in Ukraine, in addition to creating a favourable legislative framework for increasing the consumption of organic products, it is necessary to develop this market segment, consumer demand and, accordingly, popularize organic products among the population and improve the tools for promoting them on the markets. It was established which marketing tools are able to dynamically influence the development of the Ukrainian market of organic products, as well as the possible risks and benefits of promoting this business area.

## **2.9. Kyslyuk L., Naumenko I. STRATEGIC MANAGEMENT OF ENTERPRISE MARKETING ACTIVITIES BASED ON SWOT-ANALYSIS**

The article deals with the system of competitive strategies of agrarian enterprises, in particular, special attention is paid to the strategy of obtaining competitive advantages as a general competitive strategy. Methods of strategic management of enterprise marketing activity based on SWOT analysis are investigated. The peculiarities of the formation and use of some specific strategies for modern conditions of agricultural enterprises in Ukraine are analyzed. A comprehensive strategy for the formation of competitive potential and competitiveness of agricultural enterprises with functional components is proposed.

## **2.10. Prokopchuk L., Kucher O., Netiaha S., Melnyk M. EVALUATION OF ECONOMIC PERFORMANCE OF FARMS IN UKRAINE USING THE RISE METHOD**

Agricultural farms are important socio-economic basis for small business development in the countryside. In Ukraine nowadays, typical farmers can not compete with large agricultural enterprises by the quantity of products produced, although they are comparable quality-wise. One of the important shortcomings of these small farms is the low level of cooperation amongst them. Farms can't provide sufficient technical and technological services for production, and therefore, voluntary cooperation and partnership with other farmers is a good way to offset this shortcoming. The goal of the research is to identify the problem sectors of these farms and formulate recommendations to overcome them. The purpose of this article was to determine the efficient strategy of development of the farms particularly in the North-Eastern region of Ukraine namely Sumy, Kharkiv and Poltava. A total of 21 farms were assessed using the RISE-method ("Advancing sustainable agriculture - 360o farm evaluation and participatory strategy development"). Findings after the assessment showed that the functioning of farms is ineffective as indicated by low level of technical security, application of technology and the regularity of processing agricultural products. From the analyzed activities involved in the farms, relevant information were gathered such as their existing weaknesses. Consequently, proper ways of avoiding possible threats to the enterprise's production and financial activity were crafted and the most effective strategy of growth (development) of the farm was also chosen. For a smaller part of the farms studied in the North-East region of Ukraine, appropriate survival strategies are suggested, namely: the management of the agricultural enterprise should develop effective measures to ensure a high level of organization of an effective system of material and moral incentives for workers; usage of resource-saving technologies are highly encouraged; minimize production costs; reduce unprofitable activities; and comply with the agrotechnological requirements of farming and cattle breeding.

## **2.11. Bezrodna O., Rats O., Ostapenko V. ASSESSMENT OF THE EFFICIENCY OF STRATEGIC BANK MANAGEMENT: THEORETICAL AND METHODOLOGICAL ASPECTS**

The article is devoted to the development of theoretical and methodological aspects of evaluating the effectiveness of strategic bank management. The components of the complex category of "efficiency" have been determined, which take into account the determining characteristics and action of external and internal factors that influence the process of formation of results of the organization. The basic criteria of efficiency are distinguished and on the basis of them the classification of types of efficiency according to the nature of the result is developed. It is concluded that it is advisable to evaluate the effectiveness of strategic management on the criterion of achievement of target parameters (in the context of target effectiveness) using the Balanced Scorecard (BSC). The scheme of stages of strategic management of the bank on the basis of BSC is developed and the relationships between the criteria for determining the balance of the overall strategy of the bank's development are formalized. It is proposed to assess the effectiveness of strategic management of the bank in the areas, such evaluation as the effectiveness of the implementation of the overall development strategy and evaluation of the balance of the implemented strategy. For measuring the effectiveness of the implementation of the overall development strategy of the bank provides for the construction of a generic indicator by converting the transformation functions (desirability functions) of financial and non-financial indicators, which are combined within the BSC subsystems. The balance of the implemented overall development



strategy of the bank is proposed to be evaluated using the model of G. Rush, which is based on the expert survey of the heads of the functional divisions of the bank, which participated in the formation and implementation of the strategic plan. The final stage of the approach to assessing the effectiveness of strategic bank management involves the synthesis of the results of the evaluation of the effectiveness of implementation and determining the level of balance of the strategy, which allows to form sound conclusions about the effectiveness of strategic management of the bank.

### **Part 3. INNOVATIVE TRENDS OF MODERN ORGANIZATIONS DEVELOPMENT**

#### **3.1. Aleshchenko L. AGROTOURISM AS A TOOL OF KHERSON REGION AGRICULTURAL UNITS DIVERSIFICATION**

The article analyzes the components of agrotourism in the aspect of diversification of agrarian formations activities, identifies the main requirements for the creation of profitable competitive tourism product, the direction of improving the quality of agrotourist services. The peculiarities of diversification of agricultural entrepreneurship in the field of agrotourism services provision were also explored, the necessity of forming a diversification strategy in the tourism industry as a way to provide additional financial revenues to economic actors, increase of the level of rural areas development, strengthening and development of socio-economic infrastructure was substantiated.

#### **3.2. Antoshchenkova V., Antoshchenkov R., Kravchenko Yu. THE ROLE OF INFORMATION AND INNOVATIVE TECHNOLOGIES IN THE MODERN ECONOMY**

Information and innovative technologies is currently a key factor in improving management efficiency, which was facilitated by lower costs and increased hardware power, the introduction of information technology for data processing, the development of a variety of effective software, and the widespread use of the Internet. All this has made economically feasible and appropriate the use of computer technology in the economy and management of both state and commercial organizations. The vast majority of modern organizations implement automated systems of accounting, financial analysis and planning, etc. The consequence of this is the need for organizations in qualified personnel with the skills to manage information systems and technologies. Information technology – it's a system of interconnected methods and methods for collecting, storing, accumulating, searching, processing information based on the use of computer technology.

#### **3.3. Danchenko I., Bondar N. IMPROVING THE EFFICIENCY OF TRAINING STUDENTS IN HIGHER EDUCATION INSTITUTIONS OF AGRARIAN PROFILE IN THE SPECIALTY «TOURISM»**

The problems of organization of high-quality practical training of students of higher agrarian educational institutions on the specialty "Tourism" are considered in the article, analysis and methodological and methodical bases of students preparation are carried out.

#### **3.4. Grabar N., Mazorenko M. INFORMATION-AXIOLOGICAL TRAINING OF FUTURE AGRARIAN SPECIALISTS IN THE CULTUROLOGICAL ASPECT**

The humanitarian problems of education in higher education are considered. There is insufficient attention to the information and axiological component of the students training in the new communication environment. The analysis of the culturological cycle of disciplines, allowing to increase the level of creative knowledge of students, to form national values and human qualities is given. Attention is focused on the axiological component of the educational environment in the modern media space, which is largely due to the transformation of the sociological value system in the context of intensive globalization processes.

### **3.5. Zolenko A. THE IMPACT OF PUBLIC ADMINISTRATION ON THE PROVISION OF SOCIO-ECONOMIC DEVELOPMENT OF THE REGION**

The article proposes methodological support for identifying the role and degree of influence of public administration in increasing the socio-economic development of the region. The methodical approach to determining the impact of the quality of public administration on ensuring the socio-economic development of the region is developed. The main stages of the implementation of the proposed approach are investigated: an integrated assessment of the level of socio-economic development of the region (includes the definition and selection of indicators for assessing the socio-economic development of the region, the justification of indicators of stimulants and indicators of destimulants, standardization of the elements of the matrix of observations, construction of a point of reference for the level of socio-economic development, the calculation of the integral indicator of the level of social and economic development and the construction of the regional ranking); definition of the quality of public administration (includes choosing the approach to solving the decision-making problem under conditions of uncertainty, defining and substantiating the criteria for assessing the quality of public administration, calculating the quality indicator of public administration); the detection of the interaction between the quality of public administration and the integral indicator of socio-economic development of the region (includes the choice of the method of constructing the equation and the justification of its type of dependence, verification of the obtained values of the coefficient of multiple correlation, determination and Fisher's criterion for adequacy and statistical significance, economic interpretation of the obtained results). The feature of the proposed methodological approach is the use of diverse analytical tools, namely: taxonomic analysis, the theory of fuzzy sets and the method of projecting of the trend. The use of this approach will help not only to determine the level of influence of the quality of the application of the relevant public administration tools in order to facilitate the adoption of future management decisions in the context of ensuring the effective socio-economic development of the region, but also to unambiguously assess the current situation in the region through a series of indicators of socio-economic development region to one.

### **3.6. Pylypenko S., Voronianskyi O., Moshynska O. LINGUISTIC PRACTICES AS ANTROPOTECHNIQUE IN THE CONTEXT OF INFORMATIVE MODERNITY**

The article deals with the issue of linguistic practices, which requires rethinking in the context of the information society. It is noted that information reality is investigated using the paradigms «communicative revolution», «communicative reality». It is noted that the formation of an information society is accompanied by the development of new forms of rationality, improvement and the emergence of new means and forms of communication. It is about the emergence of hypertext as a new linguistic practice. On the example of communication G. Skovoroda and M. Kovalinsky demonstrate linguistic practices that are changing in the conditions of information modernity.

### **3.7. Pylypenko S., Moiseeva N., Omelchenko H. TOURISM AS AN INNOVATIONAL PROJECT OF MODERN GLOBALIZATION**

The article considers the specificity of tourism as an innovative process of modern globalization. It is emphasized that due to socio-economic and cultural vectors of globalization there is a new level of interaction between actors. It is noted that in today's conditions the importance of the country's tourist services rating is gaining importance. The problem of expansion and deepening of tourist connections is analyzed. It is noted that tourist connections are a new socio-cultural practice of a modern person. It is emphasized that under the influence of processes of globalization the formation of a new person takes place. The last person appears not in the country but in the world.

### **3.8. Ryzhikova N., Birchenko N., Rudenko S. ROLE OF THE STATE IN SUPPORT OF THE PROMISING AREA OF THE INNOVATIVE-INVESTMENT MODEL FOR DEVELOPMENT OF PROCESSING COMPANIES IN UKRAINE**

Peculiarities of investments into processing companies in Ukraine are reviewed. Problems of the state's participation in support of the promising area of the innovative-investment model for development of processing companies are outlined. Resulting from analysis of the venture business global experience, the major principles to be followed when implementing the arrangements for governmental stimulation of the venture investment are framed. The model of investment activity of institutional investors and financial mediators is proposed. Goals of the state and strategic foundations of the promising areas to form the innovative-investment policy in Ukraine under conditions of sustainable development are formulated.

### **3.9. Romaniuk I. THE MAIN ASPECTS OF INNOVATION AND INVESTMENT ACTIVITIES OF THE ENTERPRISES OF RURAL TOURISM**

The article describes the tools of state influence on the innovative activity of tourist subjects in rural areas. The directions in which innovation and investment activity of the enterprises of rural green tourism is carried out are defined. The features and factors that determine the degree of innovation and investment development of rural green tourism enterprises are substantiated. Classification features of innovations and investments in entrepreneurship of rural green tourism are established. The prospects and means of strengthening innovation and investment support for rural green tourism enterprises through the mechanisms of public-private partnership, commodity lending, franchising, social responsibility and the introduction of innovations in the organization of professional training of owners, core activities, information support and advertising, marketing strategies in the tourism market.

### **3.10. Smihunova O., Podolska O., Bogomolova K. MANAGEMENT OF ACTIVITIES OF ENTERPRISES OF THE TOURISM INDUSTRY ON THE BASIS OF MODERN INFORMATIONAL TECHNOLOGIES**

The article deals with a current trend of the role of information technologies in the sphere of tourism, reveals the special importance of their application and the influence on increase of investment attractiveness of enterprises of tourism industry. The practical tool of application of information technologies in the tourism business is analyzed. The role and place of information technologies in management and marketing of tourist enterprises are determined. The results of researches of dynamics of tourist streams of Ukrainian tourism on the basis of statistical data are considered. The main measures to create an operating system for the use of various types of information technologies in tourism are described. The offered directions of improvement of information technologies in tourism and the administrative system of the state policy on increasing the efficiency of "Incoming tourism".

### **3.11. Marenych T.G., Polyvana L.A. GENERALIZATION OF SCIENTIFIC APPROACHES TO THE DEFINITION OF THE PRINCIPLES OF MANAGERIAL ACCOUNTING**

A research aim is generalization of the scientific approaches to determine the principles of managerial accounting. It is well-proven that the list of principles of managerial accounting, presented in scientific literature, is contradictory and debatable. To conclude, the system of managerial accounting must be based on general methodological (financial) principles of record-keeping. At the same time, it must envisage the set of universal and specific principles taking into account the informative necessities of certain enterprise. Reasonably, those global principles of managerial accounting, that absorbed for itself the best practices of foreign countries, come forward as universal. The approaches to the generalization of the managerial accounting principles were determined; they allow the need for systematization and universalization of their own principles of management accounting.

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## **Part 2. STRATEGIC MANAGEMENT TOOLS AS A BASIS FOR ENSURING COMPETITIVE DEVELOPMENT OF ENTERPRISES**

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